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The case can be used only on course MEF5020 andTER1414

Case Study: Tallinna Vesi Financial Forecast

Tallinna Vesi is the largest water utility in Estonia, providing drinking water and wastewater disposal services to over 460 th end consumers in Tallinn and in several of the neighbouring municipalities (Maardu, Harku, Saue). It has exclusive rights to operate this service in the Tallinn service area until 2025. (Annual Report 2016) At the end of August 2017 Mike Poom, an intern at a local bank, has been asked to prepare a detailed financial forecast of the company and determine appropriate price range for its share considering the potential impact arising from the ongoing tariff dispute with the Competition Authority. He has obtained considerable amount of information on company's operations, court cases related to the tariff issue and his supervisor has provided valuable input in terms of some of the forecast inputs. Please help Mike to fulfil the task at hand.

Company background

Tallinna Vesi was established in 1967 as Tallinn Water Works & Sewerage Management. The current company was officially registered in 1997 as stock company AS Tallinna Vesi. (OMX Nasdaq) The company was privatised in January 2001. As a result of this transaction, the City of Tallinn maintained a 49.6% holding in the company and a golden share. The remaining 50.4% went to International Water UU which was a joint venture of French water company International Water and United Utilities, one of the leading water companies in UK. In December 2003 International Water UU sold its shareholding to United Utilities and EBRD and as a result United Utilities became a 75% owner of UU Tallinn B.V. with EBRD owning 25%. Further major change in the shareholder structure occurred in 2005, as since 1 June 2005 the company has been listed on the Main List of NASDQQ OMX Tallinn (ISIN EE3100026436, ticker TVEAT, total number of shares 20 mio, nominal value 0.60 EUR). (Prospectus) In 1 Nov 2010 EBRD sold its shareholding to United Utilities. The Company is currently owned 35.3% by UU Tallinn B.V, 34.7% by the City of Tallinn and 30% is in free float. (OMX Nasdaq)

Main facilities of Tallinna Vesi

The company is located in Tallinn, Estonia. The main operation sites of the company are depicted on Figure 1.

Figure 1. Main operation sites of Tallinna Vesi.

The Company operates two treatment plants: Ülemiste Water Treatment Plant (WTP) at Järvevana tee 3 and Paljassaare Wastewater Treatment Plant (WWTP) at Paljassaare põik 14. It also has laboratories for water, microbiology and wastewater, which together conducted a total of 150,000 analyses in 2016 (100,000 chemical and microbiological analyses from drinking water and 50,000 chemical analyses from wastewater). (Annual Report 2016)

The company owns and operates a full range of assets required to supply water and collect and dispose of wastewater and storm water. It owns the public water supply system which comprises of almost 1,150 km of water networks, 18 water pumping stations and 64 ground water borehole pumping stations with a total of 93 boreholes across the entire service area. The public sewerage system owned by the company comprises of 1,126 km of wastewater networks, 483 km of storm water networks and 174 sewerage pumping stations across the entire service area. (Annual Report 2016)

As at the end of 2016, a total of 311 employees worked for the company under continuous employment contract. (Annual Report 2016)

Company objectives and management

Strategic objectives (company web-page):

- To achieve customer service excellence
- To achieve operational excellence
- To grow the activity of the company
- To deliver Shareholder value

Mission - We create a better life with pure water!

Vision - Everyone wants to be our customer, employee and partner, because we are the leading company providing water services in the Baltics.

Company structure is presented in Appendix 1. The company has one 100% subsidiary, Watercom OÜ, which was founded in 2010 to diversify the services offered. This company concentrates on the services that remain outside its holding company´s regulated public water supply and sewerage business. Veemees is a division inside OÜ Watercom that provides water and sewer related maintenance, emergency repair and construction services to private house owners, apartment associations, apartment owners, real estate developers and construction undertakers.

Water production process and indicators

Ülemiste Water Treatment plant uses the water taken from lake Ülemiste (net volume of 15.8 million m3 on a normal water level). As the natural catchment area of the lake itself is small, an extensive water catchment system consisting of hydropoints, water reservoirs and channels has been established to provide sufficient amount of raw water. It covers ~1,800 square kilometres in Harju and Järva counties including Soodla, Jägala and Pirita Rivers, as well as Paunküla and Soodla water reservoirs. In a year of average rainfall, approximately 50% of the possible water resources in the system are used up. (Environmental Report 2016)

The quality of surface water is mostly affected by weather and geographical location of the catchment area. For ensuring safe drinking water, water treatment activities at Ülemiste started already in 1927. A new water treatment plant was built in 1979 and its upgraded facilities are used today. Water treatment process involves currently the following steps (Environmental Report 2016):

1. Surface water is collected to Lake Ülemiste and directed to Water Treatment Plant.
2. Raw water passes through screens and microfilters, which remove algae and suspended solids from the water.
3. Water is channelled into reservoirs, where a mixture of ozone and air is injected into the water to oxidize organic substances.
4. A water treatment chemical coagulant is added to clarify the water.
5. During the clarification phase suspended solids, chemical flocks and precipitates are removed from the water.

6. Water passes through filters. In summer, dependent on the quality of raw water coming into the plant, activated carbon may be added in order to remove any remaining particles and to improve the taste of the drinking water.
7. Chlorine is added to the water for disinfection purposes.
8. The water is directed to drinking water reservoirs, from where it is pumped to the city water network in accordance with demand.

Today the Water Treatment Plant produces an average of 68,000 m3 of water per day and its production covers 90% of the drinking water provided by the company. Surface water is provided to most of the Tallinn, Harku county town and the settlements of Muuga and Kallavere in the City of Maardu. (Annual Report 2016)

10% of the consumers use regional ground water taken from the Cambrian-Vendi and Cambrian-Ordovician aquifers. Ground water is supplied in Nõmme, Laagri, Merivälja, Pirita and Tiskre districts in Tallinn and in Tiskre village in Harku Rural Municipality and the City of Saue. Ground water from Ordovician-Cambrian aquifer usually belongs to the quality class I and does not need any treatment. However, ground water from Cambrian-Vendi aquifer in the quality class II or III and serving as the main drinking water source requires treatment. The main reason is mostly a natural excess content of iron, manganese or ammonium resulting in higher turbidity of water than usual. In order to supply compliant drinking water, lower quality ground water is treated by using filtration and aeration to remove excess iron, manganese and ammonium from the water. Filtration uses pressure filters installed in the bore-well pumping stations. (Environmental Report 2016)

Table 1. Water production indicators 2012-2016

Indicator	**2012**	**2013**	**2014**	**2015**	**2016**
Water production indicators					
Usage of surface water from lake Ülemiste (th m3)	21,750	22,200	22,610	22,760	23,730
Ground water usage (th m3)	2,466	2,417	2,365	2,470	2,763
incl. Tallinn	2,162	2,152	2,076	2,146	2,437
incl. Saue	211	205	231	266	279
incl. Tiskre	0	0	0	0	0
incl. Harku	57	58	58	59	47
incl. Maardu city	36	2	0	0	0
Water consumed during production (th m3)	564	456	514	1,259	1,878
Leakage level (%)	15.86%	16.98%	16.14%	14.68%	15.07%
Chemicals usage in water treatment (tons)					
Liquid chlorine (tons)	51	56	42	43	50
Coagulant (tons)	1,455	1,507	1,431	1,434	1,542
Polymer (tons)	2	2	2	2	1
Ozone (tons)	198	188	127	162	199
Chemicals usage per unit of water treated in g/m3					
Liquid chlorine (g/m3)	2.34	2.52	1.86	1.90	2.10
Coagulant (g/m3)	67	68	63	63	65
Polymer (g/m3)	0.08	0.09	0.07	0.07	0.06
Ozone (g/m3)	9.10	8.47	5.62	7.10	8.40
Electricity consumption in (MWh)					
Water Treatment (MWh)	10,325	9,705	8,709	9,746	10,721
Networks pumping stations (MWh)	7,104	6,355	5,918	6,346	6,841
Electricity consumption per unit produced in water treatment (kWh/m3)	**0.47**	**0.44**	**0.39**	**0.43**	**0.45**
Electricity consumption per unit produced in pumping stations (kWh/m3)	**2.88**	**2.63**	**2.50**	**2.57**	**2.48**

Source: Environmental Report 2016

Table 1 presents the main water production indicators in terms of volume. Chemicals and electricity account for the majority of the company's water production costs along with water abstraction charges. Water abstraction charges are government set rates charged for each m3 of water taken from the lake or from the ground and their range varies according to the source. Water abstraction costs in euros are presented in the income statement in Appendix 3. It should also be noted that the production volumes depend heavily on the amount of water used in the treatment process, volume of water losses in the water network and water demand. The demand is driven by the trends in population, network extensions and per capita water consumption. Water consumption trends are discussed in greater detail under customers and pricing.

Wastewater treatment process and indicators

Paljassaare Wastewater Treatment Plant started its operations in 1980. In 2016 the Wastewater Treatment Plant treated on an average 137,000 m3/day (Annual Report 2016). The wastewater treatment involves the following steps (Environmental Report 2016):

1. Wastewater collected through the sewerage network is directed into the Main Pumping Station at Paljassaare. Storm water (from rainfall and snow) collected into the combined sewerage system is also directed to the Main Pumping Station. However, storm water collected from areas with separate sewerage network is led to the storm water outlets through a separate storm water network.
2. The first stage of wastewater treatment is the mechanical treatment stage. In that stage, wastewater is screened to remove larger solids and the grit removal tanks remove grit and sand from the wastewater.
3. Smaller solid particles are removed in the primary sedimentation basins and formed sludge is removed from the process.
4. Coagulant is added to the wastewater in order to chemically remove phosphorus.
5. For biological treatment, wastewater is directed into the aeration tanks, where the activity of various bacteria (activated sludge) helps to remove nitrogen by biologically decomposing substances from the wastewater. To ensure a living environment suitable for the bacteria and to make their work more efficient, air and additional carbon in the form of methanol are added.
6. Activated sludge that has formed in aeration tanks is settled in the secondary sedimentation basins.
7. Treated wastewater is then pumped via a deep sea outlet into the sea.
8. Sludge removed during the different phases of the treatment process is pumped to the sludge treatment unit.
9. Sludge is digested and stabilised in anaerobic digesters where bacteria make the organic matter decompose. The sludge is digested for at least 15 days in a digester at the temperature of 37°C. Digested sludge gets dried by a centripress until the dry matter content of 30%.The biogas created in the course of anaerobic sludge digestion is used for the technological process and heating the plant buildings.
10. To produce planting soil, the process continues by mixing dewatered sludge with peat at the rate of 2:1. Thereafter the sludge mixture is prepared on Paljassaare and Liikva composting fields by mixing it at least three times per annum, after which the planting soil is ready.

Table 2. Wastewater treatment indicators 2012-2016

Indicator	2012	2013	2014	2015	2016
Wastewater quantities (th m3)					
Storm water volume (untreated) (th m3)	7,400	4,170	4,080	4,200	5,800
Untreated wastewater discharged to the sea (th m3)	137	380	1	45	123
Partly treated wastewater discharged to the sea (th m3)	186	200	225	317	584
Treated wastewater volume (th m3)	56,980	45,020	42,990	45,070	50,220
Wastewater treatment sludge (tons)	**20,437**	**27,220**	**32,109**	**31,974**	**31,741**
Chemicals usage in wastewater treatment (tons)					
Coagulant (tons)	1,872	2,647	2,926	2,839	1,983
Polymer (tons)	55	55	60	54	45
Methanol (tons)	2,122	1,830	1,856	1,577	1,352
Chemicals usage per unit of wastewater treated (g/m3)					
Coagulant (g/m3)	32.85	58.80	68.06	63.00	44.00
Polymer (g/m3)	0.96	1.22	1.40	1.20	1.00
Methanol (g/m3)	37.24	40.65	43.17	35.00	30.00
Electricity consumption in Wastewater Treatment (MWh) incl. electricity produced from biogas	**25,195**	**22,336**	**21,295**	**21,617**	**22,516**
Electricity consumption per unit treated in wastewater treatment plant (kwh/m3)	**0.44**	**0.50**	**0.50**	**0.48**	**0.45**

Source: Environmental Report 2016

Table 2 presents the main wastewater treatment indicators in terms of volume. Chemicals and electricity are most important components of the company's wastewater treatment costs along with pollution taxes. Pollution charges set by the government are calculated based on the concentration of pollutants in the wastewater discharged to the sea and the rates vary depending on the types of pollutants. Pollution tax expense in euros is presented in the income statement in Appendix 3.

Environmental standards and the quality of operations

Environmental activities of the company are regulated by the requirements arising from the EU as well as national and local government legislation. At the EU level this means compliance with the EU Water Framework Directive (2000/60/EC). At the national level, compliance with the Water Act, Public Water Supply and Sewerage Act, Waste Act, Chemicals Act, Ambient Air Protection Act and their subordinate acts is required. At the local level the company is obliged to comply with different rules and requirements both in Tallinn and its surrounding municipalities. (Environmental Report 2016)

The company has to follow the precepts set out by authorities. The main licensing authority for the company is the Environmental Board's Põhja regional department, who has issued the following environmental permits to Tallinna Vesi: 4 permits for a special use of water, 2 waste permit, and 2 ambient air pollution permits. (Environmental Report 2016)

In 12 January 2001 the company concluded a tripartite Services Agreement with the City of Tallinn and investors, which, among other things, obliges the company to comply with 97 Levels of Service. This makes Tallinna Vesi the most regulated water undertaking in Estonia. The activities and levels of services are assessed once a year by an impartial inspection body – Supervisory Foundation for the Water Companies in Tallinn – to whom the Company annually, i.e. by the end of the first quarter, submits a report on compliance with the levels of service. (Environmental Report 2016)

The main quality of service indicators are presented in Table 3. 96 levels of service out of 97 set out in the Services Agreement were met in 2016. At the same time, continuous improvement of the service quality and achievement of better results than required is still one of the company's main objectives. (Environmental Report 2016)

Table 3. Main quality of operation indicators 2012-2016

Indicator	2012	2013	2014	2015	2016
Drinking water					
Compliance of water quality at the customers' tap	99.55%	99.70%	99.80%	99.86%	99.93%
Water loss in the water distribution network	15.86%	16.98%	16.14%	14.68%	15.07%
Average duration of water interruptions per property	3.42 hrs	3.46 hrs	3.15 hrs	3.22 hrs	3.44 hrs
Wastewater					
Number of sewer blockages	715	762	757	737	670
Number of customer contacts regarding floodings, blockages and storm water	1239	1405	1060	1061	1190
Wastewater treatment compliance with environmental standards	100%	100%	100%	100%	100%
Customer Service					
Number of written complaints	184	118	76	67	45
Number of customer contacts regarding water quality	239	252	152	115	166
Number of customer contacts regarding water pressure	736	576	380	337	339
Responding to written customer contacts within at least 2 work days	98.5%	99.1%	99.1%	99.2%	99.5%
Number of failed promises	19	117	54	9	4
Notification of unplanned water interruptions at least 1hr before the interruption	90.0%	96.9%	95.0%	98.7%	98.8%

Notes: *Nitrogen removal standards were not met
Source: Operation results 2012-2016

The average customer satisfaction has had an increasing trend across years and according to 2016 TNS Emor survey based on TRI*M (Measuring, Managing and Monitoring) method indicated an average score of 94 points (94 points in 2015). At the same time the European index for the utility companies is 69. (Annual Report 2016)

The company uses approximately 380 hazardous and less hazardous chemicals in its operating activities. As a result, security and safety rules have been put in place to ensure safe handling of chemicals and minimise the likelihood of accidents involving poisonous chemicals. The company has been classified as a category B Company with risk of a major accident in Estonia due to the large amounts of chlorine stored at the plant and used in the water treatment process. Due to the methanol used in the wastewater treatment, the company has been classified as one of the most hazardous companies in Estonia on the basis of the legislation related to chemicals. (Environmental Report 2016)

In light of the above-mentioned factors, various authorities monitor the compliance of company's activities, incl. environmental activities. The Crisis Management Office of the Rescue Board's Northern Rescue Centre makes onsite inspections for ensuring chemical safety, Technical Surveillance Authority conducts surveillance over chlorine containers and the Health Board carries out a regular checks. In addition to supervisory authorities, the Company´s compliance with environmental legislation and Services Agreement requirements as well as with intra-Company requirements are also monitored throughout internal and external audits. (Environmental Report 2014) The Company is IS09001, ISO14000, ISO 17025 and EMAS accredited. (OMX Nasdaq)

Customers and pricing

The company provides water supply and sewerage services to more than 23,300 contractual customers and 460,000 end users in Tallinn and its surrounding areas. These include both domestic and commercial customers. Average water consumption of domestic customers in 2016 was 95 litres per inhabitant (95 litres in 2014). (Annual Report 2016) This is low compared to other developed countries (see Figure 1).

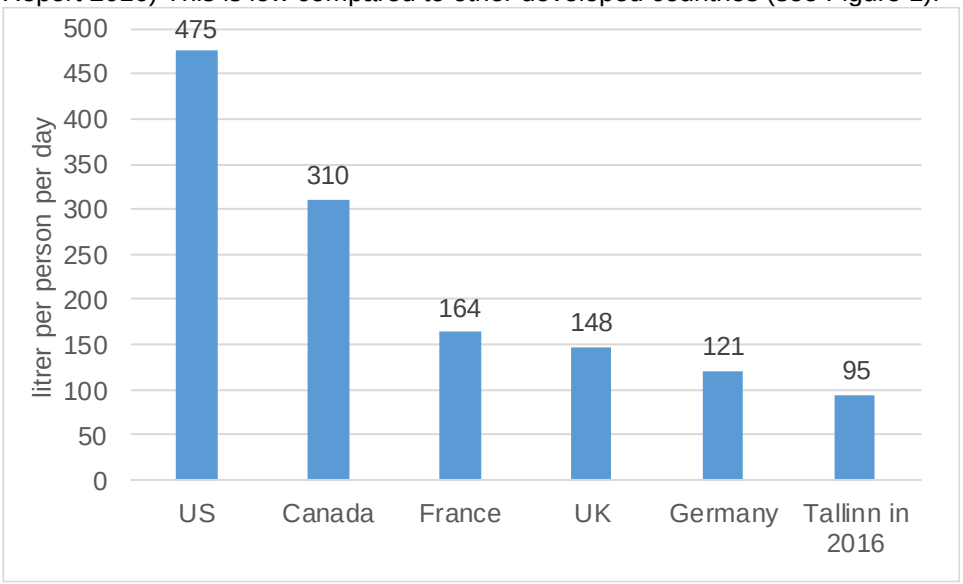


Figure 1. Water consumption per person per day in litres by countries
Source: Tallinna Vesi Annual Report 2016 and http://www.statista.com/statistics/268338/daily-per-capita-water-consumption-in-selected-countries-2010/

During 2001-2016 the water consumption of domestic customers in Tallinn has remained rather stable ranging between 108 and 93 litres per inhabitant daily. (See Figure 2).

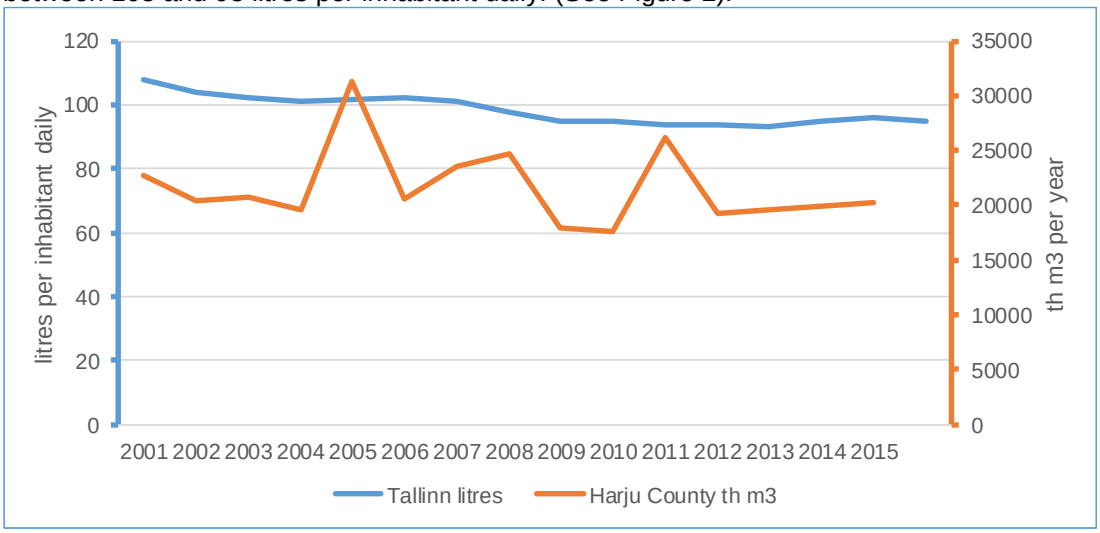


Figure 2. Water consumption of domestic customers in Tallinn and Harju County
Source: Tallinna Vesi Annual Reports, Statistics Estonia http://pub.stat.ee/px-web.2001/Dialog/varval.asp?ma=KK47&ti=VEEKASUTUS+MAAKONNA+JA+VEEKASUTUSALA+J%C4RGI&path=../Database/Keskkond/06Loodusvarad_ja_nende_kasutamine/10Veekasutus/&lang=2

However, when looking at longer term trends, there have been considerable changes in the consumption patterns in Harju County (see Figure 3). Significant reduction in water consumption has occurred since Estonian independence in 1991. This relates to the collapse of heavy industries and a reduction in domestic consumption following the introduction of metering/billing, as well as a significant reduction in water losses. In 2013 the amounts of water consumed by industries and domestic was roughly a third of that consumed in 1991.

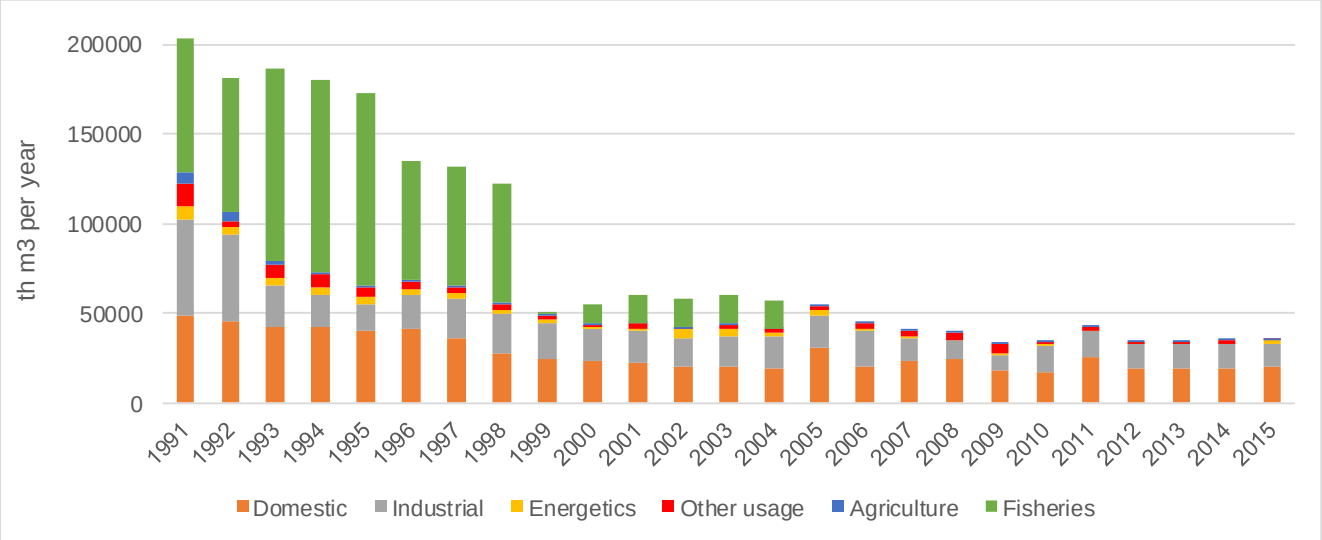


Figure 3. Water consumption by type of usage 1991-2015 in Harju County (th m3 per year)
Source: Statistics Estonia
http://pub.stat.ee/px-web.2001/Dialog/varval.asp?ma=KK47&ti=VEEKASUTUS+MAAKONNA+JA+VEEKASUTUSALA+J%C4RGI&path=../Database/Keskkond/06Loodusvarad_ja_nende_kasutamine/10Veekasutus/&lang=2

The precise volumes of sold water and wastewater services along with average prices by customer group are presented in Table 4.

Table 4. Volumes sold by Tallinna Vesi with average tariffs

	2012	2013	2014	2015	2016
Private clients					
Water sold in Tallinn (th m3)	13,780	13,706	14,002	14,142	14,441
Average water price in Tallinn (EUR/m3 excl. VAT)	0.95	0.95	0.95	0.95	0.95
Wastewater sold in Tallinn (th m3)	13,710	13,615	13,912	14,067	14,396
Average wastewater price in Tallinn (EUR/m3 excl. VAT)	0.78	0.78	0.78	0.78	0.78
Corporate clients					
Water sold in Tallinn (th m3)	5,310	4,562	4,597	4,627	4,774
Average water price in Tallinn (EUR/m3 excl. VAT)	2.32	2.32	2.32	2.32	2.32
Wastewater sold in Tallinn (th m3)	5,722	4,916	4,889	5,006	5,222
Average wastewater price in Tallinn (EUR/m3 excl. VAT)	1.72	1.72	1.72	1.72	1.72
The City of Tallinn					
Stormwater (th m3)	N/A	18,953	16,273	17,735	22,707
Outside service area clients					
Water sold (th m3)	810	1,791	1,914	1,683	1,691
Wastewater + stormwater sold (th m3)	810	1,791	1,914	1,683	1,691

Source: Association of Estonian Water Companies http://evel.ee/teabepank/viited-organisatsioonidele/infomaterjalid/

Previously the tariff setting of Tallinna Vesi was based on service agreements signed with local municipalities. According to the Public Water Supply and Sewerage Act, up to October 2010 the price changes had to be approved by the local municipality.

By the Anti-Monopolies Act, approved on 3 August 2010, the price regulation was changed so that water undertakings operating in areas with a pollution load of 2000 population equivalent or more had to get an approval to their proposed tariff changes from the Competition Authority. Competition Authority gained the right to check their tariff application documents and evaluate the justifiability of proposed prices and profitability of the water undertaking. The Act also stated that until the water undertaking had received approvals for prices from the Competition Authority, it had to provide services with the price effective on October 31, 2010. Still, the Competition Authority obtained the right at any time to demand from the water undertaker enactment of prices pursuant to the new Act. (Anti-Monopolies Act) It basically meant that the tariffs agreed between Tallinna Vesi and the City of Tallinn were to remain in force as they were in Oct 31 2010, however, the Competition Authority gained a right to demand the correction of previous prices of the company to the levels which were to be determined based on this new act. This act also gave the Competition Authority the right to establish temporary price of water service for the water undertaker in case the authority considered the price of the undertaker non-compliant with the conditions set in the new act. The temporary price were to remain in force until the Competition Authority had approved the new price for water service. (Anti-Monopolies Act)

Previously mentioned clauses in the Anti-Monopolies Act were included in the revised version of the Public Water Supply and Sewerage Act. This act currently states that the prices should enable to cover actual costs and ensure justifiable profitability rate for the water utility. The precise principles for calculating the price of water services were prepared by the Competition Authority and included in the "Procedure and terms for establishing a price for water service". The price were to depend on the (Procedure and terms for establishing a price for water service):

1. Operating costs - all costs excluding costs for bad debts, sponsorships, fees paid to mediators of water service, costs not related to core activity, penalties and fines, financial costs, undertaking's income tax costs (incl. income tax paid on dividends), other costs considered as unjustified by the Competition Authority. Competition Authority had the possibility to use CPI comparisons, peer-group comparisons and expert opinions to calculate the justified costs if they considered that the water undertaking had not followed the principles of efficient management and cost savings.
2. Capital costs – capital expenditure related to the core fixed assets excluding investments into other non-core assets, long-term financial investments, intangible assets, fixed assets acquired through EU aid or connection fees paid by customers, unjustified investments. Its calculation was based on regulatory asset base (residual book value RAB) $RAB = (RAB_0 + RAB_1)/2 + Working\,capital$, where $RAB_1 = RAB_0 + Investments - Capitalexpenditure - fixed\,assets\,sold$ and working capital was to be defined as 5% of sales.
3. Justified rate of return – to be calculated as $JR = WACC \times RAB$. In the calculation of WACC 50/50 capital structure is used, cost of debt is based on the average of 5 last years' interest rate (r_f) of German 10-year bonds and cost of equity to be calculated based on CAPM as $r_e = r_f + r_c + \beta \times r_m$, where r_c is country risk premium, beta is determined on the basis of the respective indicator of other European and/or US regulated companies, r_m market risk premium is determined on the basis of long-term market risk premiums of other European and/or US regulated companies.

Allowed sales revenue per revenue item would be the sum of operating costs, capital expenditure and justified return (*JR*). If this revenue is divided by the quantity of sold services, the result is the allowed price. (Procedure and terms for establishing a price for water service)

In Nov 2010 Tallinna Vesi turned to the Legal Chancellor for initiating a constitutional review proceeding of the 2 Nov 2010 decree No 95 of the Minister of Economic Affairs and Communications and for checking the compliance of the Competition Authority's water services pricing methodology with the principle of ensuring fundamental rights and freedoms and due process. This application relied on the following factors: (Application for initiating a constitutional review proceeding)

1. The timetable for approving the new bill, decree and methodology was extremely short.
2. There had not been any real discussion with water companies or any other key stakeholder groups, the amendments proposed by stakeholders were not considered and even responded to.
3. Establishing a price without establishing the levels of service that have to be attained in order to charge such a price is in contradiction with all basic economic principles.

Legal Chancellor concluded that the Competition Authority had violated the due process with regard to the part in which in the engagement notice it had marked a misleading purpose of engagement to the people not included in the administrative process. However, from his perspective it could not be concluded that the methodology under discussion was unlawful. (Final response of the Legal Chancellor) This led to no significant changes in regulations

on the part of the legislators. Since then there has been a long legal dispute between Tallinna Vesi, Competition Authority and the state of Estonia. Competition Authority has demanded the reduction of tariffs charged by Tallinna Vesi and the company disagrees. As Competition Authority has questioned the contract signed at the privatisation of Tallinna Vesi (which also included the tariff setting mechanism), the major shareholder of the company United Utilities along with Tallinna Vesi has commenced international arbitration proceedings against the Republic of Estonia and has applied for a compensation for damages in the amount of 90 mio EUR. The details of the chronology of events are presented in Appendix 2. As on 31 of August 2017 the court proceedings are still ongoing and the company charges the previously determined tariffs. However, there remains high uncertainty on the future tariff structure of the company.

The Company's current charges levied on its customers are based mainly on volumes of water supplied to and sewage collected from the customer's premises. Fixed basic fee is currently applied only to customers from Maardu. Details on pricing applicable to domestic customers are presented in Table 5.

Table 5. Tariffs for domestic customers without VAT as on 1 June 2017.

	Tallinn and Saue[1]	Harku borough[2]	Eastern Harku[3]	Maardu[4]
Tariff for water taken from the public water system (EUR/m^3)	0.95	0.69	0.96	1.23
Tariff for sewerage discharge and treatment (EUR/m^3)	0.78	0.72	0.78	1.59
Development cost component for 1m^3 of water (covered by the City of Tallinn) EUR/m3	*0.56*	-	-	-
Total tariff for water supply and sewerage service (EUR/m^3)	**1.73**	**1.41**	**1.74**	**2.82**
Basic fee EUR per month	**none**	**none**	**none**	**1.34**

[1] Tariff for the water supply and sewerage service is approved with the Tallinn City Government Decree No 75 (30.09.2009). Price list is valid as of 01.01.2011, updated with the Redaction No 78 due to the transition to euro.
[2] Tariffs for water supply and sewerage service in Harku Borough are valid as of 01.01.2010 (Decree No 19).
[3] Tariffs for the water supply and sewerage service in Harku Borough are valid as of 01.04.2010 (Decree No 30).
[4] Maardu tariffs have been set according to the decision by the Estonian Competition Authority 18.08.2011 9.1-3/11-006.
Source: Tallinna Vesi homepage

Commercial customers are charged higher tariffs compared to residential customers (see Table 6). In the context of commercial customers, the sewerage tariff applied depends heavily on the contamination group which is determined based on the levels of contaminants contained in taken sewage samples.

Table 6. Tariffs for commercial customers without VAT as on 1 June 2017

	Tallinn and Saue1	Harku borough2	Eastern Harku3	Maardu
Tariff for water taken from the public water system (EUR/m3)	2.32	1.42	2.32	1.23
Tariff for sewerage discharge and treatment (EUR/m3) by contamination group*				
RG-1	1.69	1.55	1.69	1.59
RG-2	1.72	1.55	1.72	1.59
RG-3	1.73	1.55	1.73	1.59
RG-4	1.99	1.78	1.99	1.83
RG-5	2.08	1.85	2.08	1.91
RG-6	2.33	2.08	2.33	2.15
RG-7	2.76	2.48	2.76	2.54
RG-8	3.61	3.26	3.61	3.34

[*] The fees include the base fee and fee for overpollution. Overpollution fee for RG1 is 0 EUR/m3.
[1] Tariff for the service is approved with the Tallinn City Government Decree No 75 of 30.09.2009. Price list is valid as of 01.01.2011, updated with the Redaction No 78 due to the transition to euro.
[2] Tariff for the service is approved with the Harku Borough Government Decree No 19 of 29.09.2009.
[3] Tariffs for the service for the inhabitants of Eastern Harku (valid as of 1st of April 2010), legal entities (legal persons in private law and legal persons in public law), sole proprietors (FIE). Tariffs for the service are approved with the Harku Borough Government Decree No 30 of 08.12.2009.
[4] Maardu tariffs have been set according to the decision by the Estonian Competition Authority 18.08.2011 9.1-3/11-006.
Source: Tallinna Vesi homepage

The tariffs charged for water and wastewater in different parts of Estonia vary significantly. Table 7 presents the summary of tariffs of several other Estonian cities and regions.

Table 7. Comparison of water and wastewater tariffs as at 31 Dec 2016 (EUR/m3 excl. VAT)

	Private		Corporate	
	Water	Wastewater	Water	Wastewater
The biggest water companies in Estonia				
AS Tallinna Vesi in Tallinn	0.95	0.78	2.32	1.72
Tartu Veevärk AS in Tartu	0.62	1.08	0.62	1.08
Järve Biopuhastus OÜ in Jõhvi	1.21	0.72	1.57	0.66
Pärnu Vesi AS in Pärnu	0.88	1.38	0.88	1.38
Other bigger water companies in Harju county				
Viimsi Vesi AS in Viimsi	1.25	1.95	1.47	2.20
AS Elveso in Rae	1.33	1.99	2.18	3.07
Saku Maja As in Saku	1.25	1.19	1.45	2.27
Kiili KVH OÜ in Kiili	1.32	1.81	1.83	2.77

Source: Association of Estonian Water Companies http://evel.ee/teabepank/viited-organisatsioonidele/infomaterjalid/

As can be seen, the tariffs in Tallinn are in most cases higher than in other major cities in Estonia. However, the municipalities neighbouring Tallinn (Harju county) have significantly higher tariffs in the context of most categories compared to those charged in Tallinn.

Financial performance

Detailed financial statements of Tallinna Vesi for years 2012-2016 are presented in Appendices 3 to 5. Table 8 presents the overview of company's loan obligations as at the end of 2016.

Table 8. Loans of Tallinna Vesi

	Outstanding 31 Dec 2016 in th EUR	Maturity	Principal payments
Loan agreement 1	37,500	Nov-18	none, contract expected to be rolled over at similar terms and amounts
Loan agreement 2	37,500	Nov-20	none, contract expected to be rolled over at similar terms and amounts
Loan agreement 3	20,000	Nov-24	in 10 equal amounts, semi-annually Nov 2019 to Nov 2024

Source: Tallinna Vesi annual report 2016

The main financial indicators and ratios of water utilities from Estonia and abroad are presented in Appendix 6. The indicators have been divided into Western and Central and Eastern Europe. For both regions the percentiles have been calculated for all water utilities (NACE codes 3600 and 3700) that have had operating revenue above 4 million EUR and which had financial data available in Amadeus database. Specific companies presented include mainly the biggest water utilities in Sweden, Denmark, Great Britain, Germany, France, Estonia, Latvia, Lithuania and Poland which had data available in Amadeus database. These companies may not be the biggest water utilities in respective countries as in some countries (for example in Finland) the water utilities are owned by local municipalities and are not set up a separate legal entities. This also indicates that the percentiles calculated may not capture the whole water utilities industry in Europe.

Share performance

The price movements of Tallinna Vesi share are depicted on Figure 4 and 5 since the IPO on Tallinn Stock Exchange in June 2005 (set equal to 100). From the peers listed in Appendix 6 United Utilities and Gelenswasser were selected. Selected market indices focus on water utilities with the exception of OMXT which is the market index of Tallinn Stock Exchange.

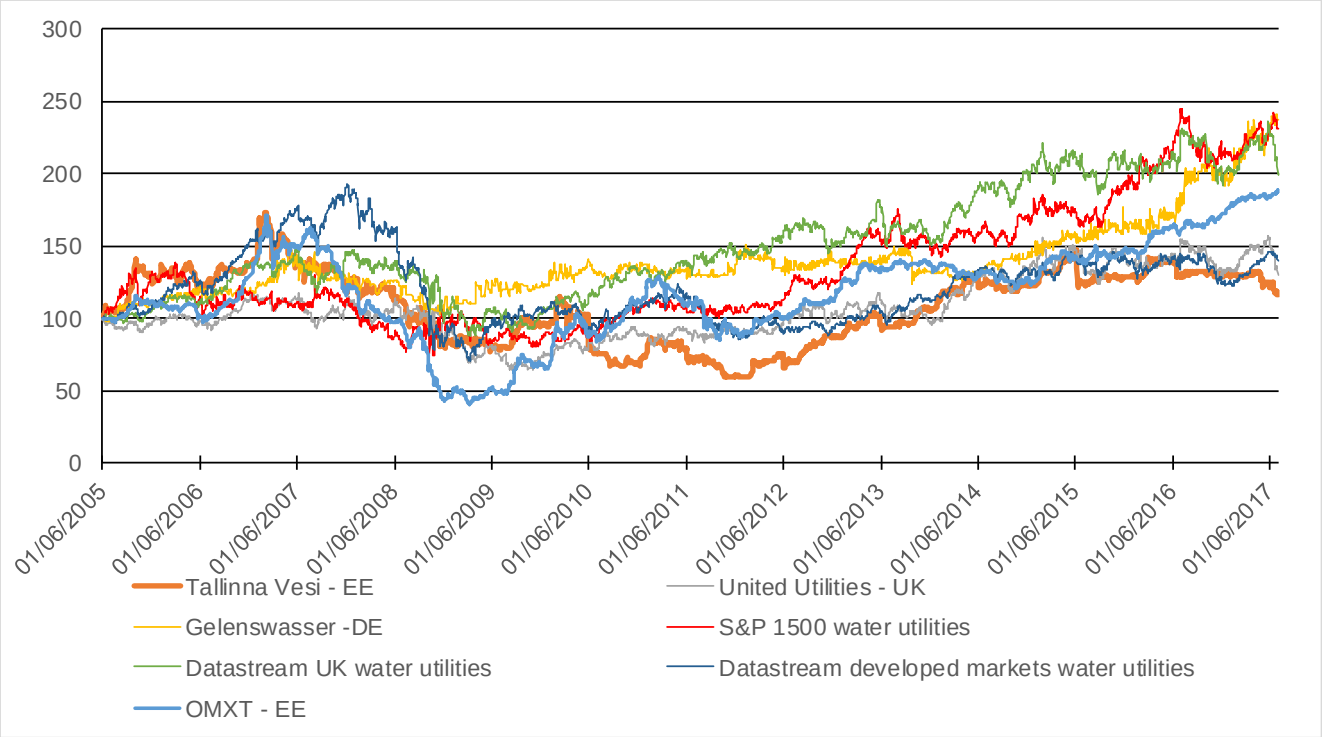


Figure 4. Tallinna Vesi share price movements compared to benchmarks
Source: Thompson Reuters - Eikon

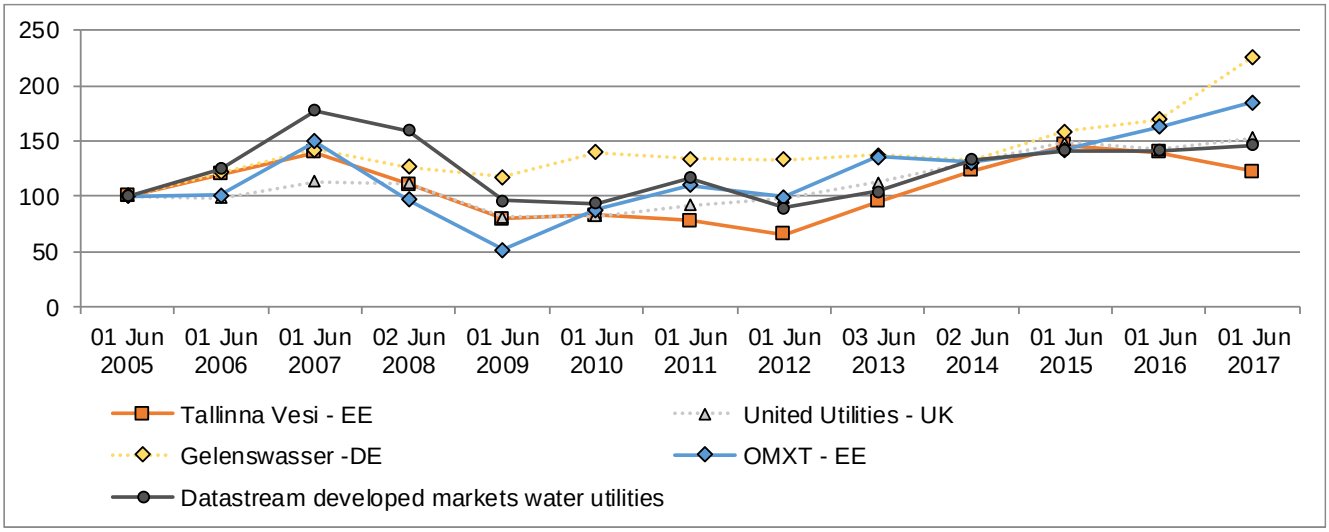


Figure 5. Tallinna Vesi share price performance compared to benchmarks
Source: Thompson Reuters - Eikon

Concluding remarks

Tallinna Vesi has operated well in terms of achieving high service quality level and its shareholders have benefitted from stable dividends. The disputes with Competition Authority have raised concerns over the future financial outlook of the company. As the bank wishes to understand the potential impact of this dispute on its share price, Mike Poom has to conduct a thorough analysis. What would you conclude if you were him?

Author: Laivi Laidroo
The case can be used only on course MEF5020 andTER1414

Data sources:

Annual Report 2016 https://www.tallinnavesi.ee/wp-content/uploads/2017/05/1-2016-Annual-report-final-ENG.pdf

Anti-Monopolies Act http://www.tallinnavesi.ee/images/stories/dokumendid/2010-08-03_AMB_provisions_Eng.doc

Application for initiating a constitutional review proceeding http://www.tallinnavesi.ee/images/stories/dokumendid/11-15_-_ASTV_complaint_to_Legal_Chancellor.pdf

Company web-page: http://www.tallinnavesi.ee/en

Competition Authority resolution for 2010 tariffs 10 May 2011 http://www.tallinnavesi.ee/images/stories/dokumendid/2011-05-11_KA_seisukoht_Eng.pdf

Competition Authority resolution for 2011 tariffs 2 May 2011 http://www.tallinnavesi.ee/images/stories/dokumendid/CA_resolution_re_ASTVs_tariff_application_Eng.pdf

Environmental report 2016 https://www.tallinnavesi.ee/wp-content/uploads/2016/03/Environmental-report-2016.pdf

Final response of the Legal Chancellor http://www.tallinnavesi.ee/images/stories/dokumendid/2011-04-12_-_Legal_Chancellor_response_cover_letter.pdf

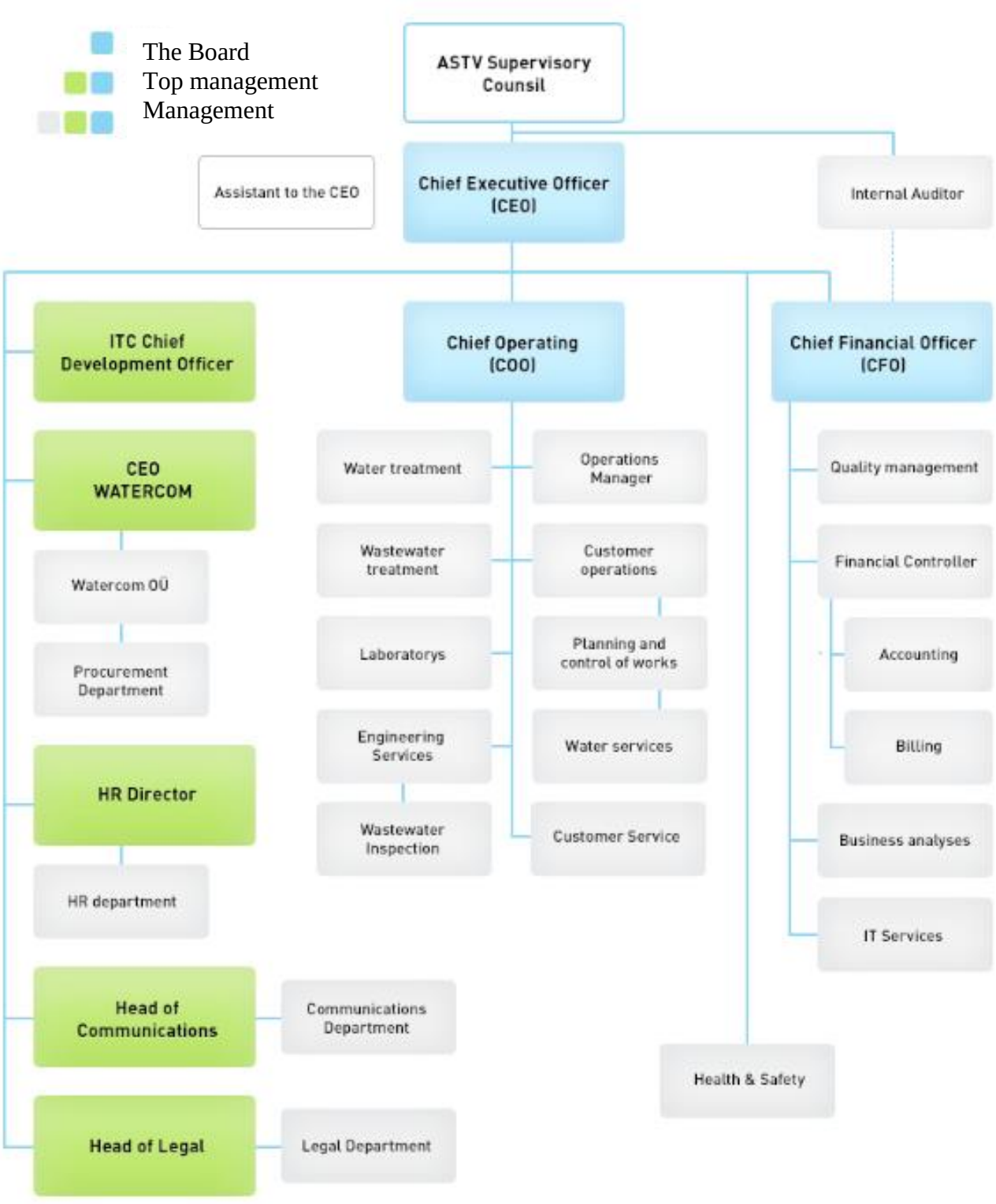
OMX Nasdaq - http://www.nasdaqomxbaltic.com/market/?instrument=EE3100026436&list=2&date=2015-06-10&pg=details&tab=company

Operation results 2016 https://www.tallinnavesi.ee/wp-content/uploads/2016/03/2016_AS-Tallinna-Vesis-operational-performance-in-2016.pdf
Operation results 2015 http://www.tallinnavesi.ee/wp-content/uploads/2016/03/2015_OPS_ENG.pdf
Operation results 2014 http://www.tallinnavesi.ee/images/stories/tootmistulemused/astv_operational_performance_in_2014.pdf
Operation results 2013 http://www.tallinnavesi.ee/images/stories/tootmistulemused/2013_eng.pdf
Operation results 2012 http://www.tallinnavesi.ee/images/stories/tootmistulemused/2012_ops_eng.pdf

Procedure and terms for establishing a price for water service http://www.tallinnavesi.ee/images/stories/dokumendid/2010-11-02_-_MoEC_decree_on_temporary_tariffs.pdf

Tariff application submitted by AS Tallinna Vesu 9 Nov 2010 http://www.tallinnavesi.ee/images/stories/dokumendid/as%20tallinna%20vesi%20tariff%20application%20for%202011-2015.pdf

APPENDIX 1. Structure of Tallinna Vesi



Source: company web-page

APPENDIX 2. Tariff dispute by steps

- **November 2010** - on the basis of the valid privatisation agreements and as required by Estonian law, the company submits an application, together with all the documents required by the law, asking the Competition Authority to approve a **tariff increase of 3.5% for 2011**. The methodology employed deviates somewhat from the one specified in the new Public Water Supply and Sewerage Act. The application is made by using many of the factors contained in the building block approach that is used by Ofwat, the regulator for water and sewerage services in England and Wales. As this model indicates higher tariff increase than the 3.5% legally permitted by the contract with the City of Tallinn, the company relies on the latter. (Tariff application submitted by Tallinna Vesi)
- **10 December 2010** – the company submits a complaint to the **European Commission** regarding certain measures adopted by the Estonian authorities - in particular the Anti-Monopoly bill and its implementing measures. According to the company, the legislative changes unilaterally altered the terms of Tallinna Vesi's privatisation without any form of meaningful prior discussion or willingness to engage in dialogue, and therefore these violate EU rules on the freedom of establishment and the free movement of capital (articles 49 and 63 TFEU). (OMX Nasdaq)
- **23 January 2011** - Competition Authority starts the supervision proceedings on the price of water service provided by Tallinna Vesi in the cities of Tallinn and Saue as per the Public Water Supply and Sewerage Act § 154 points 1, 2 and 3. This concerns the **tariffs** applied by the company in **2010**.
- **02 May 2011** - Competition Authority refuses to approve the **2011 tariff application**, basing its decision on the change in law as a result of the Anti-Monopolies Act, which was passed in August 2010 (came into force on 1 November, 2010). The main contra-arguments are that the return applied does not comply with the justified return and the tariff application does not consider equal treatment of different types of customers. (Competition Authority resolution for 2011 tariffs)
- **10 May 2011** - Competition Authority issues its position regarding the compliance of the **price** of water service of Tallinna Vesi as in **2010**. This decision states that the price of water service currently valid in Tallinn and Saue City enables the company to earn a sales revenue that **exceeds by 36%** the extent of the allowed sales revenue as calculated on the basis of Public Water Supply and Sewerage Act §14 (2) and the Guidelines. As the sales revenue is 36% higher than that provided with Public Water Supply and Sewerage Act §14 (2), then the valid price of water service has not been formed as per Public Water Supply and Sewerage Act. (Competition Authority resolution for 2010 tariffs)
- **01 June 2011** - Tallinna Vesi submits a complaint to the **Tallinn Administrative Court** against the Competition Authority's 02 May 2011 decision asking the court, among other things, to require the Competition Authority to accept the Company's price request and require the Competition Authority to follow the law and also take into consideration the agreements signed in connection with privatisation.
- **29 August 2011** - In its response to the Tallinn Administrative Court the Competition Authority puts forward its view that the principles used during the privatisation for setting the water tariffs by the City Government of Tallinn were incorrect and in conflict with the laws in force already at the time of privatisation. According to the Competition Authority "setting the service prices by way of a bid, is not allowed", and "the Competition Authority cannot approve that the water price could be formulated with the aim to achieve the smallest real tariffs increase" and "it is wrong to claim that the water tariffs arising out of the Service Agreement could be in line with the laws in force at the time of the privatisation". (OMX Nasdaq)
- **10 October 2011** - Competition Authority issues a prescription stating that if the company fails to submit a tariff application reducing current prices by 14 Nov 2011, the authority intends to unilaterally impose a **29% reduction** in the company's current tariffs. (OMX Nasdaq)
- **09 November 2011** - company submits to the **Tallinn Administrative Court** an application for an injunction, asking the court to suspend the validity of the prescription until the Court delivers a judgment regarding the associated complaint contesting the prescription of 10 October 2011. The Court approves this request after several steps and as a consequence the fulfilment of the prescription of temporary tariffs is suspended until 6 February 2012. (OMX Nasdaq)
- **06 February 2012** - **Tallinn Administrative Court** informs the company that it has agreed to the company's request for an interim injunction and is suspending the fulfilment of the Competition Authority's prescription until the Court delivers its final judgement. The court also joins both, the 2010 and 2011 tariff application cases, so the prescription is suspended until both complaints are resolved. (OMX Nasdaq)
- **17 February 2012** - the Competition Authority disputes **Tallinn Administrative Court's** order to suspend the fulfilment of the Competition Authority's prescription until the Court delivers a final judgement regarding the tariff complaints to the **Tallinn District Court**. (OMX Nasdaq)
- **27 February 2012** - Tallinna Vesi responds to the **District Court** presenting detailed evidence to support its position. On 2 March the Tallinn District Court makes its final ruling and upholds the decision of the

Tallinn Administrative Court to suspend the fulfilment of the Competition Authority's 10 October, 2011 prescription until the Court delivers a final judgement on both, 2010 and 2011 tariff application cases. (OMX Nasdaq)

- **31 May 2012** - **Tallinn District Court** issues a ruling, deeming the tariffs part of the Services Agreement signed in 2001 as part of Tallinna Vesi's privatisation package of agreements to be an administrative (public law) agreement. The District court thereby **rules in favour of AS Tallina Vesi**, overturning the Competition Authority's claim that the tariff mechanism specified in the Services Agreement was allegedly a civil law agreement that the company cannot rely on it in an administrative court. (OMX Nasdaq)
- **10 September 2012** - Tallinna Vesi submits a detailed letter to Mr. Juhan Parts, the Minister of Economic Affairs and Communications, requesting the Minister to conduct a detailed and public enquiry into utility tariff setting by the Competition Authority, and the conduct of Mr. Märt Ots, the Director-General of the Competition Authority, as the individual responsible for setting Tallinna Vesi's tariffs. This was done on the grounds that the conduct of the Head of the Competition Authority and his treatment of Tallinna Vesi's privatisation contract differed from the tariff setting methodologies applied by the Head of the Competition Authority in Kunda (OMX Nasdaq)
- **18 September 2012** - the **Supreme Court** decides not to review the Competition Authority's appeal against the **Tallinn District Court's** 31th May 2012 ruling that deemed Tallinna Vesi's Services Agreement an administrative contract, i.e. a public law contract. This means that the Tallinn District Court ruling takes effect and Tallinna Vesi tariff case is remanded back to the Tallinn Administrative Court. As per the instructions of the District Court, the court of first instance would have to assess whether the Services Agreement is binding on the Competition Authority. (OMX Nasdaq)
- **18 December 2012** - Minister of Economic Affairs and Communications completes its investigation into the conduct of the Head of the Competition Authority and the minister confirms that the Competition Authority and the Head of the Competition Authority has treated tariff applicants uniformly by applying common price regulation principles, including tariff setting in Kunda and has not breached the principle of equal treatment in respect of tariff setting for Tallinna Vesi. (OMX Nasdaq)
- **20 March 2013** - **Tallinn Administrative Court** accepts Tallinna Vesi application for open court proceedings only partially, resolving to continue with the proceedings regarding „specific water services price" in closed proceedings. (OMX Nasdaq)
- **02 May 2014** - Tallinna Vesi submitts a claim to the **Tallinn Administrative Court** to avoid the expiry of monetary claims against the Competition Authority. (OMX Nasdaq)
- **13 May 2014** - Supervisory Council of Tallinna Vesi decides to give notice of potential international arbitration proceedings against the Republic of Estonia for breaching the undertaking it is required to abide by a bilateral investment treaty. If the Republic of Estonia intends not to comply with its obligations, Tallinna Vesi would be forced to commence its arbitration. Tallinna Vesi would claim compensation for potential damages of over 90 million euros for total losses over the lifetime of the contract to 2020. Of this amount, over 50 million euros of damage had been already caused by the refusal to permit tariff increases in the period of 2011 - 2013, and its ongoing impact to the period 2014 - 2020. (OMX Nasdaq)
- **19 May 2014** - **European Commission** decides that complaints, in relation to a new legal framework (the anti-monopoly bill) introduced by the Republic of Estonia with retroactive effect for tariff setting in the water sector, cannot be upheld. European Commission's answer focuses only on the Internal Market, i.e. whether, in general, Member States can have discretion to introduce regulatory changes. The European Commission recognises that the Services Agreement between the company and the City of Tallinn contains economic conditions that were contractually agreed at the time of the privatisation and thus recognises that the modification of the privatisation regime could trigger the liability of the relevant Estonian authorities and a possible claim for compensation. European Commission also suggests that it would be for the local courts to ascertain whether this change in the law had unlawfully damaged the Company and if so, what compensation would be payable to Tallinna Vesi. (OMX Nasdaq)
- **14 October 2014** - Tallinna Vesi and its shareholder United Utilities (Tallinn) B.V. commence **international arbitration** proceedings **against the Republic of Estonia** for breach of the Agreement on the Encouragement and Reciprocal Protection of Investments between the Kingdom of The Netherlands and the Republic of Estonia (the Treaty). The Company claims a compensation for potential damages of over 90 million euros for total losses over the lifetime of the contract to 2020. Of this amount, over 50 million euros of damage had been already caused by the refusal to permit tariff increases in the period of 2011 - 2013 and its ongoing impact to the period 2014 - 2020. (OMX Nasdaq)
- **05 June 2015** - **Tallinn Administrative Court** dismisses Tallinna Vesi complaints filed by Tallinna Vesi on 1 June 2011 and 9 Nov 2011 in tariff dispute held between the company and the Competition Authority of Estonia. Tallinna Vesi intends to appeal to District Court. (OMX Nasdaq)

- **17 June 2015** - the timetable of the International Arbitration Proceedings was determined. The final hearing is set for **November 2016**. (OMX Nasdaq)
- **12 Oct 2015** – Tallinna Vesi receives the reasoning for th 5 June 2015 decision. Tallinn Administrative Court formed an opinion that the tariffs part of the Services Agreement is not binding on the Competition Authority. AS Tallinna Vesi deems the opinion of the Court to be unfounded. The company indends to appeal and the legal protection for avoiding the decrease in tariffs and company's claim against Competition Authority remains in force. (OMX Nasdaq)
- **12 May 2016** - the Tribunal Panel of the International Centre for Settlement of Investment Disputes (ICSID) issues its decision on the disclosure of information related to the dispute between Tallinna Vesi, Republic of Estonia and United Utilities (Tallinn) B.V. Tallinna Vesi had requested permission to publish certain extracts of the Memorial. The Tribunal found that neither party can publish documents, however, "general discussion" about the case is permitted to be disclosed.
- **7-11 & 14-15 November 2016** – hearings of international arbitration proceedings between As Tallinna Vesi and the Republic of Estonia are held on Paris.
- **26 Jan 2017** – **Tallinn District Court** dismisses Tallinna Vesi appeal in the tariff dispute with Competition Authority. The company has the right to submit cassation to the Supreme Court.
- **27 Feb 2017**- Tallinna Vesi lodges an appeal in cassation with the **Supreme Court** against the Tallinn Circuit Court's decision of 26th January 2017.
- **20 June 2017** – **Supreme Court** decides to open proceedings on Tallinna Vesi appeal in cassation lodged 27 February 2017. Until the final verdict of the tariff dispute, the interim injunction applied by Estonian Courts against the Competition Authority's precept to reduce the tariffs, remains in force. The claim for damages submitted by the Company against the Estonian Competition Authority, has also been suspended until the final verdict is established. AS Tallinna Vesi submitted this claim on 2nd May 2014, to avoid the expiry of the monetary claim.
- **24 Nov 2017 Supreme Court** announces that the decision on the tariff dispute between AS Tallinna Vesi and Estonian Competition Authority would be made on 12 Dec 2017

Explanation: Court levels in Estonia:

1. Tallinn Administrative Court
2. Tallinn District Court
3. Supreme Court

Colours used: international arbitration, Competition Authority, European Commission, European Court of Human Rights

APPENDIX 3. Tallinna Vesi income statements 2012-2016

	2012	2013	2014	2015	2016
Total sales to private customers in Tallinn	23,789	23,642	24,154	24,408	24,949
incl. sales from water supply service	*13,096*	*13,022*	*13,303*	*13,436*	*13,720*
incl. sales from wastewater supply service	*10,693*	*10,620*	*10,851*	*10,972*	*11,229*
Total sales to corporate customers in Tallinn	18,767	19,053	19,085	19,358	20,069
incl. sales from water supply service	*10,248*	*10,585*	*10,664*	*10,736*	*11,075*
incl. sales from wastewater supply service	*8,519*	*8,468*	*8,421*	*8,622*	*8,994*
Storm water disposal service in Tallinn	3,713	3,424	3,073	3,357	3,671
Total sales outside of Tallinn	4,524	4,308	4,520	4,765	4,400
incl. sales from water supply service	*1,028*	*1,095*	*1,153*	*1,280*	*1,306*
incl. sales from wastewater supply service	*2,684*	*2,730*	*2,957*	*3,011*	*2,709*
incl. sales from storm water disposal service	*812*	*483*	*410*	*474*	*385*
Overpollution fee	832	734	839	766	778
Construction service and design	351	1,146	925	2,724	4,511
Other works and services	948	780	645	550	604
Total revenue	**52,924**	**53,087**	**53,241**	**55,928**	**58,982**
Water abstraction charges	-937	-997	-1,057	-1,101	-1,169
Chemicals	-1,631	-1,734	-1,737	-1,531	-1,308
Electricity	-3,695	-3,392	-3,032	-3,035	-3,107
Pollution tax	-347	-1,872	-2,163	-1,002	-1,091
Staff costs	-4,750	-4,833	-4,880	-5,603	-5,729
Depreciation and amortization	-5,167	-5,115	-5,370	-5,690	-5,862
Construction service and design	-277	-947	-784	-2,398	-4,006
Other costs of goods sold	-3,533	-3,615	-3,376	-3,319	-3,449
Total cost of goods sold	**-20,337**	**-22,505**	**-22,399**	**-23,679**	**-25,721**
GROSS PROFIT	**32,587**	**30,582**	**30,842**	**32,249**	**33,261**
Marketing expenses	-772	-690	-456	-435	-365
incl. staff costs	*-373*	*-375*	*-340*	*-362*	*-312*
incl. depreciation and amortization	*-326*	*-244*	*-63*	*-11*	*-1*
incl. other general administration costs	*-73*	*-71*	*-53*	*-62*	*-52*
General administration expenses	-4,740	-5,060	-5,517	-6,086	-7,799
incl. staff costs	*-1,745*	*-1,769*	*-1,785*	*-2,015*	*-1,986*
incl. depreciation and amortization	*-295*	*-339*	*-287*	*-308*	*-343*
incl. other general administration costs	*-2,700*	*-2,952*	*-3,445*	*-3,763*	*-5,470*
Other income/costs	1,696	-75	-41	-150	-470
OPEARTING PROFIT	**28,771**	**24,757**	**24,828**	**25,578**	**24,627**
Interest income	1,591	681	432	95	41
Interest expense, loan	-1,358	-1,087	-1,137	-981	-881
Interest expense, swap	-1,851	-2,024	-1,846	-1,149	-566
Increase/decrease of fair value of swap	-89	2,255	483	830	-316
Other financial income/costs	1	-21	-32	-15	-15
Total financial income/expenses	**-1,706**	**-196**	**-2,100**	**-1,220**	**-1,737**
PROFIT BEFORE TAXES	**27,065**	**24,561**	**22,728**	**24,358**	**22,890**
Income tax on dividends	-4,466	-4,625	-4,785	-4,500	-4,500
NET PROFIT	**22,599**	**19,936**	**17,943**	**19,858**	**18,390**
Dividends paid	16,081	17,401	18,001	18,001	18,001

Source: annual reports

APPENDIX 4. Tallinna Vesi balance sheets 2012-2016

31 December	2012	2013	2014	2015	2016
ASSETS TOTAL	**200,728**	**202,721**	**205,576**	**209,072**	**213,610**
CURRENT ASSETS TOTAL	**42,614**	**47,225**	**47,233**	**45,440**	**41,603**
Cash and cash equivalents	23,935	31,786	38,560	37,819	33,987
incl. cash in hand and in bank	*1,859*	*3,295*	*13,358*	*13,738*	*21,900*
incl. short-term deposits	*22,076*	*28,491*	*25,202*	*24,081*	*12,087*
Total trade receivables, accrued income and prepaid expenses	18,323	15,010	8,261	7,174	7,167
incl. trade receivables commercial entities	*7,732*	*3,652*	*3,184*	*3,434*	*3,462*
incl. unlikely receivables commercial entities	*-454*	*-331*	*-72*	*-81*	*-16*
incl. trade receivables private persons	*3,237*	*3,211*	*3,313*	*3,350*	*3,706*
incl. unlikely receivables private persons	*-45*	*-37*	*-22*	*-19*	*-397*
incl. accrued interest	*21*	*9*	*9*	*5*	*1*
incl. prepaid expenses	*709*	*352*	*261*	*231*	*125*
incl. government grant receivable	*7,123*	*8,154*	*1,577*	*0*	*0*
incl. other accrued income	*0*	*0*	*11*	*254*	*286*
Inventories	356	429	412	447	449
NON-CURRENT ASSETS TOTAL	**158,114**	**155,496**	**158,343**	**163,632**	**172,007**
Other long-term receivables	7,560	2,213	0	142	0
incl. government grant receivable	*3,746*	*2,161*	*0*	*0*	*0*
incl. loan to co-partner	*3,814*	*0*	*0*	*0*	*0*
incl. long-term accounts receivable	*0*	*52*	*0*	*142*	*0*
Property, plant and equipment	149,400	152,246	157,481	162,732	171,177
incl. land and buildings	*24,793*	*24,851*	*25,689*	*25,950*	*26,134*
incl. facilities	*167,389*	*175,032*	*181,365*	*187,943*	*199,921*
incl. machinery and equipment	*44,018*	*44,874*	*47,206*	*47,016*	*47,297*
incl. other equipment	*1,302*	*1,321*	*1,359*	*1,277*	*1,104*
incl. accumulated depreciation	*-91,400*	*-95,397*	*-100,097*	*-103,605*	*-106,681*
incl. construction in progress	*2,258*	*577*	*688*	*3,495*	*3,402*
incl. unfinished pipelines	*1,040*	*988*	*1,271*	*656*	*0*
Intangible assets	1,154	1,037	862	758	830
incl. acquired licenses and other intangibles net	*1,129*	*1,010*	*787*	*696*	*575*
incl. unfinished intangible assets	*25*	*27*	*75*	*62*	*255*

Source: annual reports

APPENDIX 4. Tallinna Vesi balance sheets 2012-2016 (continued)

31 December	2012	2013	2014	2015	2016
LIABILITIES AND EQUITY TOTAL	**200,728**	**202,721**	**205,576**	**209,072**	**213,610**
LIABILITIES TOTAL	**116,055**	**115,513**	**118,426**	**120,065**	**124,214**
CURRENT LIABILITIES TOTAL	**9,888**	**11,213**	**8,825**	**8,420**	**10,639**
Current portion of long-term borrowings	115	2,146	261	328	264
incl. current portion of long-term bank loans	*0*	*2,000*	*0*	*0*	*0*
incl. current portion of finance lease liabilities	*115*	*146*	*261*	*328*	*264*
Trade and other payables	5,482	4,761	4,855	5,586	7,030
incl. trade payables operating expenditures	*1,743*	*1,564*	*1,522*	*1,371*	*2,555*
incl. trade payables capital expenditures	*834*	*214*	*636*	*932*	*1,286*
incl. payables to related parties	*187*	*197*	*199*	*184*	*190*
incl. payables to employees	*869*	*900*	*699*	*1,241*	*1,131*
incl. interest payable	*50*	*33*	*44*	*30*	*31*
incl. other accrued expenses	*135*	*65*	*68*	*98*	*48*
incl. warranty reserve	*28*	*26*	*72*	*68*	*76*
incl. income tax payable	*142*	*141*	*150*	*161*	*163*
incl. VAT payable	*744*	*823*	*487*	*618*	*621*
incl. water abstraction charges payable	*236*	*257*	*267*	*282*	*317*
incl. pollution taxes payable	*181*	*209*	*346*	*236*	*240*
incl. social security tax payable	*284*	*283*	*299*	*323*	*328*
incl. other taxes payable	*49*	*49*	*66*	*42*	*44*
Derivatives	2,039	1,816	1,078	523	610
Prepayments	2,252	2,490	2,631	1,983	2,735
incl. prepayments for water and sewerage services	*76*	*55*	*64*	*87*	*76*
incl. prepayments for connection fee	*2,176*	*2,435*	*2,567*	*1,896*	*2,659*
NON-CURRENT LIABILITIES TOTAL	**106,167**	**104,300**	**109,601**	**111,645**	**113,575**
Deferred income from connection fees	7,892	10,143	12,567	15,030	17,050
Borrowings	95,717	93,618	96,250	95,974	95,795
incl. non-current portion of long-term bank loans	*94,919*	*92,934*	*94,917*	*94,923*	*94,939*
incl. non-current portion of finance lease liabilities	*798*	*684*	*1,333*	*1,051*	*856*
Derivatives	2,538	507	761	628	715
Other payables	20	32	23	13	15
EQUITY TOTAL	**84,673**	**87,208**	**87,150**	**89,007**	**89,396**
Share capital	12,000	12,000	12,000	12,000	12,000
Share premium	24,734	24,734	24,734	24,734	24,734
Statutorty legal reserve	1,278	1,278	1,278	1,278	1,278
Retained earnings	46,661	49,196	49,138	50,995	51,384

Source: annual reports

APPENDIX 5. Tallinna Vesi cash flow statements 2012-2016

		2012	2013	2014	2015	2016
CASH FLOW FROM OPERATING ACTIVITIES						
	Operating profit	28,771	24,757	24,828	25,578	24,627
	Adjustment for depreciation/amortisation	5,879	5,809	5,851	6,184	6,405
	Adjustment for income from government grants and revenue from connection fees	-2,043	-117	-143	-194	-218
	Other non-cash adjustments	-153	11	-33	-15	-15
	Profit/loss from sale and write off of property, plant and equipment, and intangible assets	-6	-138	145	2	-42
	Change in current assets involved in operating activities	-160	-433	1,165	-897	41
	Change in liabilities involved in operating activities	-568	-92	-364	453	1,074
Total cash flow from operating activities		**31,720**	**29,797**	**31,449**	**31,111**	**31,872**
CASH FLOWS FROM INVESTING ACTIVITIES						
	Loans granted	-765	0	0	0	0
	Repayment of loan	0	3,814	0	0	0
	Acquisition of property, plant and equipment, and intangible assets	-10,011	-9,187	-9,646	-13,495	-14,526
	Compensations received for construction of pipelines	11,198	7,885	10,523	6,499	3,002
	Proceeds from sale of property, plant and equipment, and intangible assets	38	165	13	30	50
	Interest received	1,585	693	432	99	45
Total cash flow from investing activities		**2,045**	**3,370**	**1,322**	**-6,867**	**-11,429**
CASH FLOWS FROM FINANCING ACTIVITIES						
	Received loans	0	0	20,000	0	0
	Repayment of loans	0	0	-20,000	0	0
	Interest paid and loan financing costs incl swap interests	-3,272	-3,154	-2,995	-2,178	-1,510
	Repayment of finance lease	-61	-136	-216	-306	-264
	Dividends paid	-16,801	-17,401	-18,001	-18,001	-18,001
	Income tax on dividends	-4,466	-4,625	-4,785	-4,500	-4,500
Total cash flow used in financing activities		**-24,600**	**-25,316**	**-25,997**	**-24,985**	**-24,275**
Change in cash and cash equivalents		**9,165**	**7,851**	**6,774**	**-741**	**-3,832**
Cash and cash equivalents at the beginning of the period		**14,770**	**23,935**	**31,786**	**38,560**	**37,819**
Cash and cash equivalents at the end of the period		**23,935**	**31,786**	**38,560**	**37,819**	**33,987**

Source: annual reports

APPENDIX 6. Tallinna Vesi peers

Water companies with annual operating revenue above 4000 EUR														
Company (top companies from countries)	-			Tallinna Vesi	Stockholm Vatten VA AB	Uppsala Vatten och Avfall AB	Aarhus Vand A/S	Nordvand A/S	Kemble Water Holdings Limited	United Utilities Group PLC	Berliner Wasserbetriebe	Gelsen-wasser AG	Veolia Eau - Compagnie Generale des Eaux	SUEZ EAU FRANCE
Region	**Western Europe**			Tallinn - EE	Stockholm - SE	Uppsala - SE	Aarhus - DK	Gentofte - DK	Reading - GB	Warrington - GB	Berlin - DE	Gelsen-kirchen - DE	Nanterre - FR	Courbevoie - FR
Year	**2015**			2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015
Percentile	25%	50%	75%	-	-	-	-	-	-	-	-	-	-	-
Operating revenue (th EUR)	10,468	17,626	41,608	53,164	153,767	50,728	87,920	79,755	2,745,236	2,193,659	1,191,805	1,030,600	2,833,928	2,280,017
Total assets (th EUR)	33,253	60,205	120,279	211,335	1,148,194	229,728	1,386,950	15,755	21,994,781	14,716,742	6,766,282	1,564,900	10,205,189	6,162,921
ROE based on PBT (%)	0.92	6.81	10.91	27.45	-41.36	4.30	1.17	0.00	25.68	13.08	8.85	9.44	8.68	0.99
ROA based on PBT (%)	0.06	0.32	4.30	12.02	0.71	0.36	1.06	0.00	2.21	3.04	2.66	5.52	2.67	0.62
Gross margin (%)	11.39	62.80	72.62	60.35			76.11	4.90						
EBITDA margin (%)	6.44	22.81	39.13	56.48	26.01	27.35	56.93	0.38	55.81	54.38	51.36	8.41	5.21	1.98
Interest cover (operating profit to interest paid)	1.33	3.01	4.77		0.51	1.30			1.55	2.54	2.53	6.51	0.44	-3.29
Current ratio	0.82	1.09	2.02	5.51	0.05	0.27	2.81	0.94	0.77	0.74	0.71	2.02	0.30	1.03
Liquidity ratio	0.80	1.12	1.85	5.46	0.05	0.27	2.78	0.88	0.74	0.60	0.70	1.80	0.30	0.99
Equity ratio (%)	26.55	46.60	63.93	43.27	1.80	14.68	89.84	4.00	9.86	23.26	30.04	58.52	30.71	62.59
Cash conversion cycle (days)	47.3	221.0	784.1		-2.3		165.3	296.0	87.1	-23.9	109.9	34.3	486.7	13.1
City or government ownership	-	-	-	35%	100%	100%	100%	56%	0%	0%	50%	0%	9%	0%

Source: Amadeus database

APPENDIX 6. Tallinna Vesi peers (continued)

Company (top companies from countries)	-			Tallinna Vesi	Järve Biopuhastus	Pärnu Vesi	Tartu Veevärk	Rigas Udens SIA	UAB Vilniaus Vandenys	Miejskie Przedsiebiorstwo Wodociagow i Kanalizacij W M.ST. Warszavie S.A.
Region	**Central and Eastern Europe**			Tallinn - EE	Jõhvi - EE	Pärnu - EE	Tartu - EE	Riga - LT	Vilnius - LV	Warsaw - PL
Year	**2015**			2015	2015	2015	2015	2015	2015	2015
Percentile	25%	50%	75%	-	-	-	-	-	-	-
Operating revenue (th EUR)	139	494	2,000	53,164	8,500	7,640		52,470	39,845	301,657
Total assets (th EUR)	102	560	4,479	211,335	97,126	54,369	83,427	276,249	125,305	1,819,335
ROE based on PBT (%)	-0.95	2.78	25.67	27.45	1.62	5.39	5.57	4.67	-7.48	9.62
ROA based on PBT (%)	-0.32	0.10	1.70	12.02	1.39	4.64	3.32	2.25	-5.31	4.93
Gross margin (%)	-0.50	7.09	21.24	60.35		44.41		21.50	32.85	
EBITDA margin (%)	4.51	13.10	24.52	56.48	48.74					51.24
Interest cover (operating profit to interest paid)	0.81	4.21	19.39					22.35		10.87
Current ratio	0.59	1.12	2.18	5.51	4.15	2.28	1.07	1.53	0.32	0.20
Liquidity ratio	0.47	1.00	1.95	3.98	4.09	2.24	1.05	1.42	0.29	0.20
Equity ratio (%)	17.96	55.47	82.65	43.79	85.59	86.02	59.50	48.29	70.96	51.26
Cash conversion cycle (days)	36.6	70.7	112.7			155.4	150.3	6.9		67.4
City or government ownership	-	-	-	35%	100%	100%	100%	100%	95%	100%

Source: Amadeus database

APPENDIX 7. Tallinna Vesi sales forecast

SALES FORECAST							type in numbers if needed		
	2013	2014	2015	2016	2017	2018	2019	2020	2021
Sales in m3									
Private customers in Tallinn									
Private water (th m3)	13,706	14,002	14,142	14,441					
Increase %	-0.54%	2.11%	0.99%	2.07%					
Private wastewater (th m3)	13,615	13,912	14,067	14,396					
Increase %	-0.70%	2.13%	1.10%	2.29%					
Corporate customers in Tallinn									
Corporate water (th m3)	4,562	4,597	4,627	4,774					
Increase %	-16.40%	0.76%	0.66%	3.07%					
Corporate wastewater (th m3)	4,916	4,889	5,006	5,222					
Increase %	-16.40%	-0.55%	2.34%	4.14%					
Total water in Tallinn	**18,268**	**18,599**	**18,769**	**19,215**					
Increase %	-4.50%	1.78%	0.91%	2.32%					
Total wastewater Tallinn	**18,531**	**18,801**	**19,073**	**19,619**					
Increase %	-4.86%	1.44%	1.43%	2.78%					
City of Tallinn									
Stormwater (th m3)	18,953	16,273	17,735	22,707					
Increase %		-16.47%	8.24%	21.90%					
Customers outside of Tallinn									
Private and corporate water (th m3)	1,791	1,914	1,683	1,691					
Increase %	54.75%	6.43%	-13.71%	0.45%					
Private and corporate wastewater (th m3)	1,791	1,914	1,683	1,691					
Increase %	54.75%	6.43%	-13.71%	0.45%					
Tariffs EUR/m3									
Private customers in Tallinn									
Private water (EUR/m3 excl. VAT)	0.95	0.95	0.95	0.95					
Increase %	0.00%	0.00%	0.00%	0.00%					
Private wastewater (EUR/m3 excl. VAT)	0.78	0.78	0.78	0.78					
Increase %	0.00%	0.00%	0.00%	0.00%					
Corporate customers in Tallinn									
Corporate water (EUR/m3 excl. VAT)	2.32	2.32	2.32	2.32					
Increase %	0.00%	0.00%	0.00%	0.00%					
Corporate wastewater (EUR/m3 excl. VAT)	1.72	1.72	1.72	1.72					
Increase %	0.00%	0.00%	0.00%	0.00%					
City of Tallinn									
Stormwater (EUR/m3 excl. VAT)	0.18	0.19	0.19	0.16					
Increase %		4.33%	0.24%	-17.08%					
Customers outside of Tallinn									
Private and corporate water (EUR/m3 excl. VAT)	0.61	0.60	0.76	0.77					
Increase %	-107.49%	-1.49%	20.79%	1.55%					
Private and corporate wastewater (EUR/m3 excl. VAT)	1.52	1.55	1.79	1.60					
Increase %	-117.29%	1.34%	13.64%	-11.65%					
TOTAL SALES TH EUR									
Total sales to private customers in Tallinn	23,642	24,154	24,408	24,949					
incl. sales from water supply service	13,022	13,303	13,436	13,720					
incl. sales from wastewater supply service	10,620	10,851	10,972	11,229					
Total sales to corporate customers in Tallinn	19,053	19,085	19,358	20,069					
incl. sales from water supply service	10,585	10,664	10,736	11,075					
incl. sales from wastewater supply service	8,468	8,421	8,622	8,994					
Storm water disposal service in Tallinn	3,424	3,073	3,357	3,671					
Total sales outside of Tallinn	4,308	4,520	4,765	4,400					
incl. sales from water supply service	1,095	1,153	1,280	1,306					
incl. sales from wastewater supply service	2,730	2,957	3,011	2,709					
incl. sales from storm water disposal service	483	410	474	385					
Overpollution fee	734	839	766	778					
Construction service and design	1,146	925	2,724	4,511					
Other works and services	780	645	550	604					
Total revenue	**53,087**	**53,241**	**55,928**	**58,982**					

APPENDIX 8. Tallinna Vesi cost of goods sold forecast

COST OF GOODS SOLD FORECAST							type in numbers if needed		
	2013	2014	2015	2016	2017	2018	2019	2020	2021
Produced/treated volumes									
Usage of surface water from lake Ülemiste (th m3)	22,200	22,610	22,760	23,730					
Increase %	2.03%	1.81%	0.66%	4.09%					
Ground water usage (th m3)	2,417	2,365	2,470	2,763					
Increase %	-2.01%	-2.20%	4.27%	10.60%					
Treated wastewater volume (th m3)	45,020	42,990	45,070	50,220					
Increase %	-26.57%	-4.72%	4.62%	10.25%					
Water abstraction charges	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Average water abstraction charges (EUR/m3)	0.041	0.042	0.044	0.044					
Increase %	4.46%	4.31%	3.01%	1.10%					
Water abstraction charges (th EUR)	997	1,057	1,101	1,169					
Chemicals	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Chemicals costs (th EUR)	1,734	1,737	1,531	1,308					
Increase %	5.94%	0.17%	-13.46%	-17.05%					
Electricity	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Electricity consumption per unit produced in water treatment (kWh/m3)	**0.44**	**0.39**	**0.43**	**0.45**					
Increase %	-8.59%	-13.49%	10.05%	5.22%					
Electricity consumption per unit produced in pumping stations (kWh/m3)	**2.63**	**2.50**	**2.57**	**2.48**					
Increase %	-9.58%	-5.07%	2.59%	-3.76%					
Electricity consumption per unit treated in wastewater treatment plant (kwh/m3)	**0.50**	**0.50**	**0.48**	**0.45**					
Increase %	10.88%	-0.16%	-3.28%	-6.98%					
Electricity consumed kwh	38,396	35,922	37,709	40,078					
Average electricity tariff EUR/kwh	**0.088**	**0.084**	**0.080**	**0.078**					
Increase %	1.87%	-4.66%	-4.87%	-3.82%					
Total electricity costs (th EUR)	**3,392**	**3,032**	**3,035**	**3,107**					
Pollution tax	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Average pollution tax per treated wastewater volume EUR/m3	0.042	0.050	0.022	0.022					
Increase %	85.35%	17.36%	-126.31%	-2.34%					
Pollution tax (th EUR)	1,872	2,163	1,002	1,091					
Staff costs	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Staff costs (th EUR)	4,833	4,880	5,603	5,729					
Increase %	1.72%	0.96%	12.90%	2.20%					
TOTAL COST OF GOODS SOLD TH EUR	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Water abstraction charges	-997	-1,057	-1,101	-1,169					
Chemicals	-1,734	-1,737	-1,531	-1,308					
Electricity	-3,392	-3,032	-3,035	-3,107					
Pollution tax	-1,872	-2,163	-1,002	-1,091					
Staff costs	-4,833	-4,880	-5,603	-5,729					
Depreciation and amortization	-5,115	-5,370	-5,690	-5,862					
Construction service and design	-947	-784	-2,398	-4,006					
Other costs of goods sold	-3,615	-3,376	-3,319	-3,449					
Total cost of goods sold	**-22,505**	**-22,399**	**-23,679**	**-25,721**					

APPENDIX 9. Tallinna Vesi full forecast

	2013	2014	2015	2016	2017	2018	2019	2020	2021
INCOME STATEMENT									
Total sales to private customers in Tallinn	23,642	24,154	24,408	24,949					
incl. sales from water supply service	*13,022*	*13,303*	*13,436*	*13,720*					
incl. sales from wastewater supply service	*10,620*	*10,851*	*10,972*	*11,229*					
Total sales to corporate customers in Tallinn	19,053	19,085	19,358	20,069					
incl. sales from water supply service	*10,585*	*10,664*	*10,736*	*11,075*					
incl. sales from wastewater supply service	*8,468*	*8,421*	*8,622*	*8,994*					
Storm water disposal service in Tallinn	3,424	3,073	3,357	3,671					
Total sales outside of Tallinn	4,308	4,520	4,765	4,400					
incl. sales from water supply service	*1,095*	*1,153*	*1,280*	*1,306*					
incl. sales from wastewater supply service	*2,730*	*2,957*	*3,011*	*2,709*					
incl. sales from storm water disposal service	*483*	*410*	*474*	*385*					
Overpollution fee	734	839	766	778					
Construction service and design	1,146	925	2,724	4,511					
Other works and services	780	645	550	604					
Total revenue	**53,087**	**53,241**	**55,928**	**58,982**					
Water abstraction charges	-997	-1,057	-1,101	-1,169					
Chemicals	-1,734	-1,737	-1,531	-1,308					
Electricity	-3,392	-3,032	-3,035	-3,107					
Pollution tax	-1,872	-2,163	-1,002	-1,091					
Staff costs	-4,833	-4,880	-5,603	-5,729					
Depreciation and amortization	-5,115	-5,370	-5,690	-5,862					
Construction service and design	-947	-784	-2,398	-4,006					
Other costs of goods sold	-3,615	-3,376	-3,319	-3,449					
Total cost of goods sold	**-22,505**	**-22,399**	**-23,679**	**-25,721**					
GROSS PROFIT	**30,582**	**30,842**	**32,249**	**33,261**					
Marketing expenses	-690	-456	-435	-365					
incl. staff costs	*-375*	*-340*	*-362*	*-312*					
incl. depreciation and amortization	*-244*	*-63*	*-11*	*-1*					
incl. other general administration costs	*-71*	*-53*	*-62*	*-52*					
General administration expenses	-5,060	-5,517	-6,086	-7,799					
incl. staff costs	*-1,769*	*-1,785*	*-2,015*	*-1,986*					
incl. depreciation and amortization	*-339*	*-287*	*-308*	*-343*					
incl. other general administration costs	*-2,952*	*-3,445*	*-3,763*	*-5,470*					
Other income/costs	-75	-41	-150	-470					
OPEARTING PROFIT	**24,757**	**24,828**	**25,578**	**24,627**					
Interest income	681	432	95	41	18	11	7	5	3
Interest expense, loan	-1,087	-1,137	-981	-881	-881	-881	-881	-863	-826
Interest expense, swap	-2,024	-1,846	-1,149	-566	-566	-566	-566	-554	-530
Increase/decrease of fair value of swap	2,255	483	830	-316					
Other financial income/costs	-21	-32	-15	-15					
Total financial income/expenses	**-196**	**-2,100**	**-1,220**	**-1,737**					
PROFIT BEFORE TAXES	**24,561**	**22,728**	**24,358**	**22,890**					
Income tax on dividends	-4,625	-4,785	-4,500	-4,500					
NET PROFIT	**19,936**	**17,943**	**19,858**	**18,390**					
Dividends paid	17,401	18,001	18,001	18,001					

APPENDIX 9. Tallinna Vesi full forecast (continued)

FINANCIAL INDICATORS AND RATIOS FOR FORECAST	2013	2014	2015	2016	2017	2018	2019	2020	2021
Estimated effective interest rate on loan	1.1%	1.2%	1.0%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%
Estimated effective swap interest rate on loan	2.1%	1.9%	1.2%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%
Dividend pay-out ratio (%) for year t-1	77%	90%	100%	91%	94%	94%	94%	94%	94%
Days of sales outstanding for commercial entities	54.8	48.5	51.4	49.6	49.6	49.6	49.6	49.6	49.6
Days of sales outstanding for private persons	39.7	40.3	37.8	39.4	39.4	39.4	39.4	39.4	39.4
Unlikely receivable commercial entities as a % of all commercial receivables	9%	2%	2%	0%	0%	0%	0%	0%	0%
Unlikely receivable private persons as a % of all private receivables	1%	1%	1%	11%	11%	11%	11%	11%	11%
Prepaid expenses as a % of cost of goods sold	2%	1%	1%	0%	0%	0%	0%	0%	0%
Days of inventory on hand	6.9	6.6	6.8	6.3	6.3	6.3	6.3	6.3	6.3
Proportion of facilities from total plant, property and equipment (gross)	80%	79%	80%	81%	81%	81%	81%	81%	81%
Proportion of equipment from total plant, property and equipment (gross)	20%	21%	20%	19%	19%	19%	19%	19%	19%
Number of days payable to suppliers for operating expenditures	44.3	44.1	35.0	52.9	52.9	52.9	52.9	52.9	52.9
Number of days payable to suppliers for capital expenditures	8.4	23.7	24.9	31.9	31.9	31.9	31.9	31.9	31.9
Number of days payable to employees	80.4	62.2	96.9	87.8	87.8	87.8	87.8	87.8	87.8
Number of days payable for water abstraction charges	92.8	90.9	92.2	97.6	97.6	97.6	97.6	97.6	97.6
Number of days payable for pollution taxes	40.2	57.6	84.8	79.2	79.2	79.2	79.2	79.2	79.2

BALANCE SHEET	2013	2014	2015	2016	2017	2018	2019	2020	2021
ASSETS TOTAL	**202,721**	**205,576**	**209,072**	**213,610**					
CURRENT ASSETS TOTAL	**47,225**	**47,233**	**45,440**	**41,603**					
Cash and cash equivalents	31,786	38,560	37,819	33,987					
incl. cash in hand and in bank	*3,295*	*13,358*	*13,738*	*21,900*	-	-	-	-	-
incl. short-term deposits	*28,491*	*25,202*	*24,081*	*12,087*	-	-	-	-	-
Total trade receivables, accrued income and prepaid expenses	15,010	8,261	7,174	7,167					
incl. trade receivables commercial entities	*3,652*	*3,184*	*3,434*	*3,462*					
incl. unlikely receivables commercial entities	*-331*	*-72*	*-81*	*-16*					
incl. trade receivables private persons	*3,211*	*3,313*	*3,350*	*3,706*					
incl. unlikely receivables private persons	*-37*	*-22*	*-19*	*-397*					
incl. accrued interest	*9*	*9*	*5*	*1*	0	0	0	0	0
incl. prepaid expenses	*352*	*261*	*231*	*125*					
incl. government grant receivable	*8,154*	*1,577*	*0*	*0*	0	0	0	0	0
incl. other accrued income	*0*	*11*	*254*	*286*	0	0	0	0	0
Inventories	429	412	447	449					
NON-CURRENT ASSETS TOTAL	**155,496**	**158,343**	**163,632**	**172,007**					
Other long-term receivables	2,213	0	142	0	0	0	0	0	0
incl. government grant receivable	*2,161*	*0*	*0*	*0*	0	0	0	0	0
incl. loan to co-partner	*0*	*0*	*0*	*0*	0	0	0	0	0
incl. long-term accounts receivable	*52*	*0*	*142*	*0*	0	0	0	0	0
Property, plant and equipment	152,246	157,481	162,732	171,177					
incl. land and buildings	*24,851*	*25,689*	*25,950*	*26,134*					
incl. facilities	*175,032*	*181,365*	*187,943*	*199,921*					
incl. machinery and equipment	*44,874*	*47,206*	*47,016*	*47,297*					
incl. other equipment	*1,321*	*1,359*	*1,277*	*1,104*					
incl. accumulated depreciation	*-95,397*	*-100,097*	*-103,605*	*-106,681*					
incl. construction in progress	*577*	*688*	*3,495*	*3,402*					
incl. unfinished pipelines	*988*	*1,271*	*656*	*0*					
Intangible assets	1,037	862	758	830					
incl. acquired licenses and other intangibles net	*1,010*	*787*	*696*	*575*					
incl. unfinished intangible assets	*27*	*75*	*62*	*255*					

APPENDIX 9. Tallinna Vesi full forecast (continued)

	2013	2014	2015	2016	2017	2018	2019	2020	2021
LIABILITIES AND EQUITY TOTAL	**202,721**	**205,576**	**209,072**	**213,610**					
LIABILITIES TOTAL	**115,513**	**118,426**	**120,065**	**124,214**					
CURRENT LIABILITIES TOTAL	**11,213**	**8,825**	**8,420**	**10,639**					
Current portion of long-term borrowings	2,146	261	328	264	264	264	2,264	4,264	4,264
incl. current portion of long-term bank loans	*2,000*	*0*	*0*	*0*	0	0	2,000	4,000	4,000
incl. current portion of finance lease liabilities	*146*	*261*	*328*	*264*	264	264	264	264	264
Trade and other payables	4,761	4,855	5,586	7,030					
incl. trade payables operating expenditures	*1,564*	*1,522*	*1,371*	*2,555*					
incl. trade payables capital expenditures	*214*	*636*	*932*	*1,286*					
incl. payables to related parties	*197*	*199*	*184*	*190*					
incl. payables to employees	*900*	*699*	*1,241*	*1,131*	0	0	0	0	0
incl. interest payable	*33*	*44*	*30*	*31*	0	0	0	0	0
incl. other accrued expenses	*65*	*68*	*98*	*48*	0	0	0	0	0
incl. warranty reserve	*26*	*72*	*68*	*76*	0	0	0	0	0
incl. income tax payable	*141*	*150*	*161*	*163*					
incl. VAT payable	*823*	*487*	*618*	*621*					
incl. water abstraction charges payable	*257*	*267*	*282*	*317*					
incl. pollution taxes payable	*209*	*346*	*236*	*240*					
incl. social security tax payable	*283*	*299*	*323*	*328*					
incl. other taxes payable	*49*	*66*	*42*	*44*	0	0	0	0	0
Derivatives	1,816	1,078	523	610					
Prepayments	2,490	2,631	1,983	2,735					
incl. prepayments for water and sewerage servic	55	64	87	76					
incl. prepayments for connection fee	2,435	2,567	1,896	2,659					
NON-CURRENT LIABILITIES TOTAL	**104,300**	**109,601**	**111,645**	**113,575**					
Deferred income from connection fees	10,143	12,567	15,030	17,050					
Borrowings	93,618	96,250	95,974	95,795	95,795	95,795	93,795	89,795	85,795
incl. non-current portion of long-term bank loans	92,934	94,917	94,923	94,939	94,939	94,939	92,939	88,939	84,939
incl. non-current portion of finance lease liabilitie	684	1,333	1,051	856	856	856	856	856	856
Derivatives	507	761	628	715					
Other payables	32	23	13	15					
EQUITY TOTAL	**87,208**	**87,150**	**89,007**	**89,396**					
Share capital	12,000	12,000	12,000	12,000					
Share premium	24,734	24,734	24,734	24,734					
Statutorty legal reserve	1,278	1,278	1,278	1,278					
Retained earnings	49,196	49,138	50,995	51,384					

APPENDIX 9. Tallinna Vesi full forecast (continued)

CASH FLOW STATEMENT	2013	2014	2015	2016	2017	2018	2019	2020	2021
CASH FLOW FROM OPERATING ACTIVITIES									
Operating profit	24,757	24,828	25,578	24,627					
Adjustment for depreciation/amortisation	5,809	5,851	6,184	6,405					
Adjustment for income from government grants and revenue from connection fees	-117	-143	-194	-218	0	0	0	0	0
Other non-cash adjustments	11	-33	-15	-15	0	0	0	0	0
Profit/loss from sale and write off of property, plant and equipment, and intangible assets	-138	145	2	-42	0	0	0	0	0
Change in current assets involved in operating activities	-433	1,165	-897	41					
Change in liabilities involved in operating activities	-92	-364	453	1,074					
Total cash flow from operating activities	**29,797**	**31,449**	**31,111**	**31,872**					
CASH FLOWS FROM INVESTING ACTIVITIES									
Loans granted	0	0	0	0	0	0	0	0	0
Repayment of loan	3,814	0	0	0	0	0	0	0	0
Acquisition of property, plant and equipment, and intangible assets	-9,187	-9,646	-13,495	-14,526	-10,168	-10,168	-10,168	-10,168	-10,168
Compensations received for construction of pipelines	7,885	10,523	6,499	3,002	0	0	0	0	0
Proceeds from sale of property, plant and equipment, and intangible assets	165	13	30	50	0	0	0	0	0
Interest received	693	432	99	45					
Total cash flow from investing activities	**3,370**	**1,322**	**-6,867**	**-11,429**					
CASH FLOWS FROM FINANCING ACTIVITIES									
Received loans	0	20,000	0	0	-	-	-	-	-
Repayment of loans	0	-20,000	0	0					
Interest paid and loan financing costs incl swap interests	-3,154	-2,995	-2,178	-1,510					
Repayment of finance lease	-136	-216	-306	-264					
Dividends paid	-17,401	-18,001	-18,001	-18,001					
Income tax on dividends	-4,625	-4,785	-4,500	-4,500					
Total cash flow used in financing activities	**-25,316**	**-25,997**	**-24,985**	**-24,275**					
Change in cash and cash equivalents	**7,851**	**6,774**	**-741**	**-3,832**					
Cash and cash equivalents at the beginning of the period	**23,935**	**31,786**	**38,560**	**37,819**					
Cash and cash equivalents at the end of the period	**31,786**	**38,560**	**37,819**	**33,987**					
Check cash balances with balance sheet					0	0	0	0	0
Difference					0	0	0	0	0

FCFE	2013	2014	2015	2016	2017	2018	2019	2020	2021
CFO (cash flow from operating activities)	-	-	-	-					
Cash flow from investments	-	-	-	-					
Net borrowing	-	-	-	-					
Total FCFE	-	-	-	-					
growth of FCF after 2019									
Cost of equity									
Terminal value of FCFE									
Present value of FCFE	-	-	-	-					
Fair value of share									

APPENDIX 9. Tallinna Vesi full forecast (continued)

FINANCIAL RATIOS FOR ANALYSIS	2013	2014	2015	2016	2017	2018	2019	2020	2021
Sales (th EUR)	53,087	53,241	55,928	58,982	0	0	0	0	0
Total assets (th EUR)	202,721	205,576	209,072	213,610	0	0	0	0	0
ROE based on PBT (%)	28%	26%	27%	26%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
ROA based on PBT (%)	12%	11%	12%	11%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Gross margin (%)	58%	58%	58%	56%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
EBITDA margin (%)	55%	49%	52%	46%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Interest cover (operating profit to interest paid)	8.0	8.3	12.0	17.0	0.0	0.0	0.0	0.0	0.0
Current ratio	4.2	5.4	5.4	3.9	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Liquidity ratio	4.2	5.3	5.3	3.9	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Equity ratio (%)	43%	42%	43%	42%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Gearing (non-current liabilities and loans to equity) (%)	1.2	1.3	1.3	1.3	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Number of shares (th pieces)	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000	20,000
EPS	1.00	0.90	0.99	0.92	0.00	0.00	0.00	0.00	0.00
DPS	0.90	0.90	0.00	0.00	0.00	0.00	0.00	0.00	-
Cash flow per share (CFO/no of shares)	1.49	1.57	1.56	1.59	0.00	0.00	0.00	0.00	0.00
Sales per share	2.65	2.66	2.80	2.95	0.00	0.00	0.00	0.00	0.00
Book value per share	4.36	4.36	4.45	4.47	0.00	0.00	0.00	0.00	0.00
Share price	9.25	12.00	13.80	13.80	-	-	-	-	-
P/E	9.28	13.38	13.90	15.01	-	-	-	-	-
P/CF	6.21	7.63	8.87	8.66	-	-	-	-	-
P/S	3.48	4.51	4.93	4.68	-	-	-	-	-
P/B	2.12	2.75	3.10	3.09	-	-	-	-	-