

PUBLIC ENTERPRISES IN ESTONIA AS INSTRUMENTS OF FOREIGN TRADE POLICY

Peter Friedrich, Jaan Looga¹
University of Tartu

Abstract

The authors discuss whether a small country with shrinking population should apply public enterprises to improve its economic situation for purposes of external economic relations policy. The study refers to Estonia as an example. Estonia has developed public enterprises of the central state and of the municipalities since the reestablishment of the Estonian Republic.

As public enterprise use private forms of law, some management problems occur because public firms are legally obliged to practice the management by objectives. The operationalization of welfare maximisation or achievement of sustainability of society to formulate goals for public enterprises was yet not successful. However, public firms should increase income, avoid monopoly positions of private firms, provide special public services, and should realize public goals. The activities of Estonian public enterprises and their goals show that Estonian enterprises can be used as instruments for foreign trade.

The authors formulate a simple two-country model comprising a small and a big country. They introduce a public interest function referring to production, demand and employment, which allows the authors to argue that under conditions of shrinking population, the small country's public interests, becomes reduced. They show that employing public enterprises diminishes negative effects on public interests. Even some types of inefficient public firms may lead to improvements.

Keywords: Public enterprises, small countries, Estonia, foreign economic policy, public enterprise management, functions and goals of public enterprises

JEL: F1, F2, F5, H1, H4, H7, L3, L9

1. Problem

In times of mercantilism, (Sombart 1928; Stavenhagen 1969; Ambrosius 1987; Reinert 1999; Reinermann, Roßkopf 2000; Mac Maken 2014), public enterprises were used extensively as instruments of foreign economic policy. At present this function of public enterprises is not stressed very much (Thiemeyer 1975;

¹ Prof. Dr. Dr. h.c. Peter Friedrich (em.), University of Tartu, School of Economics and Business Administration, Narva Rd. 4, 51009 Tartu; peter.friedrich@ut.ee

Jaan Looga, MA, PhD Student, University of Tartu, School of Economics and Business Administration, Narva Rd. 4, 51009 Tartu; jaan.looga@ut.ee

Ambrosius 1984; Laux 1984; Bös 1985; Cox 1997), although the phenomenon of new public service transnationals has appeared (Clifton 2008).

Moreover, in the course of integration, e.g. Estonia becoming a member of the EU, some national instruments to improve countries' welfare vanished, such as in custom policies, monetary policies, capital market policies, competition policies, some sector policies such as agricultural policy, banking policies, transportation and traffic policies, environmental policies, currency policy, foreign economic policies and many others. Small countries in Europe like Estonia have to face population aging and decrease (Friedrich, Ülper, Ukrainski 2014). Therefore, change the endowment, the economic relations, integration with other countries and the economic situation of the small country, and the small country becomes even smaller.

There is no perfect indicator or threshold to define small countries, but according to the World Bank a population size below 1.5 million inhabitants seems highly correlated with small territory size and GDP (World Bank 2016). The authors characterize a small country by showing a small population in relation to that of a big country (e.g., the population of Estonia at 1,315 million [year 2014] in relation to the population of other EU member states at 502,876 [year 2014]). Estonia is a small country and the other EU countries have been chosen by the authors as an example of a big country showing a common market. Estonia is integrated into the big market of the rest of the EU.

Public enterprises are public units attempting to pursue public goals by providing goods to other economic units. They have a public owner, they possess a long-term stock of production factors, and their management is competent regarding the essential decisions related to production and delivery. They are not part of the governmental budget planning process (Eichhorn, Friedrich 1976; Friedrich, Timpmann, Ukrainski 2014).

Should politicians apply public enterprises to serve against shrinkage? To discuss the problem the authors tackle the following research questions.

- (1) Are there considerable activities of public enterprises in Estonia?
- (2) Does public enterprise theory consider the role of public enterprises as an instrument of foreign economic policy?
- (3) Will the well-being of a small country increase if public firms produce domestic and internationally traded goods?
- (4) Does this happen under the conditions of population shrinkage and in the case of inefficiently producing public enterprises?

These questions are analysed and debated in the following sections. In the first part the authors discuss the engagement of public enterprises and their involvement in foreign economic relations. In subsequent sections, they show the link between public enterprise theory and the application of public enterprises as a tool for influencing foreign economic relations. The authors formulate a two-region model, which demonstrates the influence of public enterprises on foreign economic

relations. A function of public interests is used to argue whether public enterprises are beneficial for the small country even in the case of a shrinking population and partly inefficient public enterprise operations.

2. Structures of Public Enterprises in Estonia

2.1. Their Establishment during Transformation

In the course of transformation, extended privatizations took place. People owned firms (socialist ones), called riigiettevõtte (sotsialistik), and combines (tootmis-koondis), which were changed to public enterprises, sold, or commercialized. Some firms survived as public firms of private law, while others were integrated and new ones established (Friedrich, Ramcke 2007). Privatisation started with about 10,000 small and 500 big commercialized state-owned firms (OECD 2011) and was nearly finished by 1995. By the year 1998, about 80% of the GDP was created in the private sector. However, at present the investment of central state public enterprises is still higher than that from the central state budget (National Audit Office 2013). The assets of public enterprises (of the central state) come to 23% of all the assets of the public sector (National Audit Office 2013). The proportion of public enterprise employees of the non-agricultural market-oriented sector is similar to that of Europe, 7.1% (CEEP 2006; Friedrich, Ramcke 2007). That of state-owned enterprises in the form of stock companies and limited liability companies is about 4.1% (OECD 2014). There are public enterprises that belong to the central state and public firms that are owned by the municipalities. Although privatization is typically performed, the development of public enterprises is still in transition, leading to disputes about legal forms (OECD 2011; National Audit Office 2013) adequate management procedures, their tasks and goals, and market behaviours.

2.2. Types of Public Enterprises, Owners, and Legal Forms

The share of public enterprises with respect to the number of all enterprises is relatively low, about 0.12% in 2015 (see Table 4, Table 2, and Table 3). However, many public firms are much bigger in terms of employees, assets, and equity capital (see Table 1 for the year 2014).

The number of public firms of the central state experienced reduction after Estonia gained independence until the year 2003 (see Table 1). Afterwards, the number of central state firms varied and numbered 74 in 2015. The number of firms also varies because of different kinds of measurement and definitions, for instance, those with a public share of 50% or more; those with a share of under 50%; those firms which are being established, under liquidation, or for sale; or firms which are not considered. In the year 2002 statistical office data showed 62 (50% and lower participation), two firms just founded, 13 under liquidation, and 6 sold. Additionally, 28 other central state public firms were identified (Friedrich, Ramcke 2007). Therefore, the statistical results are not exact. Some difficulties are posed by foundations belonging to the

central state (2002, 48, Friedrich, Ramcke 2007), non-profit associations, and cooperatives.

With a municipal enterprise one observes a decrease in the number of municipal enterprises from the year 2000 with 279 (see Table 2) to 2015 with 207. Here statistical problems also exist. Apart from the city and municipal offices exist many city and municipal agencies, which partly act like public enterprises or are non-profit associations or foundations (see Table 5).

Public enterprises mostly occur as stock companies and limited liability companies if they are more profit oriented or as foundations if they are particularly public service oriented (OECD 2014).

Within the public sector many forms of organisations which come near to being public enterprises exist. For example, the profit-making State Management Forest Centre is an institution of public law. But there are also other bodies like the legal persons governed by public law such as universities, which act similarly to public enterprises and are net budgeting institutions, for example, the Bank of Estonia. Table 5 shows that there are approximately 2,611 organizational units within the public sector which do not count statistically as public enterprises or as foundations, etc. but act partly like or are partly public enterprises. For 2015, another source indicates (Naarits 2015: 207): “As at the beginning of 2015, the list of general government units included a total of 2,949 establishments, public-legal units, foundations, and enterprises acting as non-market producers whose economic activities were included in government finance accounting. This number included 322 central government units, 2,625 local government units and 2 social security funds”.

Special company forms of public law for public activities and for public cooperation like Kommunalunternehmen (legally independent municipal enterprises: Detig 2004), Eigenbetriebe (legally dependent enterprises) of Federation (BHO §3), States (LHO §3) and municipalities (Brede 2005, Eigenbetriebsverordnungen) or savings banks (Sparkassengesetze der Länder) existing in Germany are missing in Estonia as well as corporations of public law.

Table 1. Central state-owned enterprises divided by economic activities from 2000-2015

	Central state enterprises															
Economic activities	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Economic activities total	73	63	58	52	54	74	70	68	66	69	69	73	72	65	66	74
Agriculture, forestry and fishing	3	2	1	2	2	3	3	3	2	3	3	3	2	2	2	3
Mining and quarrying	7	4	4	1	1	1	1	1	2	1	1	1	1	1	1	1
Manufacturing	6	7	6	6	6	6	5	7	5	7	7	7	6	6	5	4
Electricity, gas, steam and air conditioning supply	5	4	3	3	4	7	8	8	9	9	8	8	8	8	8	9
Water supply; sewerage, waste management and remediation activities	2	2	2	2	2	4	3	2	3	3	3	3	3	3	3	3
Construction	1	1	2	2	2	2	3	3	5	6	7	6	7	2	1	1
Wholesale and retail trade; repair of motor vehicles and motorcycles	8	6	5	5	5	8	6	4	4	3	2	3	3	3	4	4
Transportation and storage	12	12	12	12	12	12	9	10	9	9	10	13	13	13	14	15

Accommodation and food service activities	2	2	2	1	1	2	2	2	1	2	3	2	2	2	3	3
Information and communication	4	4	5	5	5	6	6	6	5	6	6	6	6	7	6	7
Financial and insurance activities	0	0	0	0	0	0	0	0	0	0	1	2	2	3	3	4
Real estate activities	6	5	6	4	4	5	5	3	3	3	3	4	5	3	3	3
Professional, scientific and technical activities	11	11	9	8	9	12	12	13	11	10	8	8	8	7	7	8
Administrative and support service activities	2	1	0	0	0	3	4	3	4	4	3	3	3	2	1	2
Public administration and defence; compulsory social security	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Education	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Human health and social work activities	0	0	0	0	0	0	0	1	1	1	1	1	1	1	2	2
Arts, entertainment and recreation	1	1	1	1	1	3	3	2	2	2	3	3	2	2	2	2

Source: Compilation of authors using data from Statistics Estonia 2016b

Table 2. Local government enterprises according to economic activities from 2000-2015

Economic activities	Local government enterprises															
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Economic activities total	279	260	250	233	227	246	243	238	235	226	225	223	213	211	206	207
Agriculture, forestry and fishing	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0
Mining and quarrying	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Manufacturing	3	2	1	0	0	0	0	0	0	0	0	0	0	0	1	1
Electricity, gas, steam and air conditioning supply	106	92	81	76	74	68	65	63	56	55	60	62	62	59	57	57
Water supply; sewerage, waste management and remediation activities	38	37	47	49	47	63	64	64	69	66	64	61	58	60	60	63
Construction	6	4	5	4	6	8	7	6	8	5	4	4	4	6	5	5
Wholesale and retail trade; repair of motor vehicles and motorcycles	10	8	6	5	4	1	0	1	1	1	1	1	1	1	1	1
Transportation and storage	11	10	8	8	6	5	6	6	6	5	5	7	8	6	6	6

Accommodation and food service activities	1	1	3	2	1	1	2	2	2	4	4	3	2	2	1	1
Information and communication	4	4	4	4	4	4	4	4	4	4	3	2	3	1	1	1
Financial and insurance activities	0	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0
Real estate activities	57	49	41	41	44	50	51	48	43	40	39	38	35	36	33	33
Professional, scientific and technical activities	3	4	5	5	4	5	6	5	4	5	5	5	2	2	3	2
Administrative and support service activities	14	9	8	6	5	4	3	3	6	5	4	6	5	4	4	5
Public administration and defence; compulsory social security	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Education	1	1	0	0	0	0	0	0	0	2	2	1	1	1	1	1
Human health and social work activities	16	25	29	25	22	26	25	25	24	23	23	23	21	22	21	21
Arts, entertainment and recreation	6	7	7	6	7	9	8	9	9	8	8	8	8	7	8	8

Source: Compilation of authors using data from Statistics Estonia 2016b

Table 3. Legal company forms and numbers of firms in Estonia 2008-2015

Legal company forms and numbers of firms	Estonian	2008	2009	2010	2011	2012	2013	2014	2015
Total		146 135	169 837	183 392	194 304	201 875	209 133	223 634	233 526
Sole proprietor	Üksikisikust ettevõtja	17 788	32 187	34 797	34 022	33 362	32 315	32 431	32 215
General partnership	Täisühing	417	456	509	758	1 745	2 625	2 638	2 541
Limited partnership	Usaldusühing	932	1 631	1 505	1 725	1 894	2 128	2 273	2 638
Private limited company (Osäühing OÜ)	Osäühing	92 554	99 308	108 603	118 752	128 067	135 681	148 775	158 173
Public limited company (AG, stock company)	Aktsiaselts	5 344	5 094	4 819	4 449	4 149	3 851	3 689	3 493
Commercial association (cooperative)	Tulundusühing	624	612	607	602	592	1 676	1 699	1 713
Societas Europaea	Euroopa Aktsiaselts	3	4	5	5	5	7	7	8
European Economic Interest Grouping	Euroopa Majandus osäühing	1	2	2	3	3	8
Branch of foreign company	Välismaa äriühingu filiaal	483	482	487	490	490	516	538	559
Non-profit association	Mittetulundusühing	27 181	29 246	31 208	32 628	30 770	29 530	30 768	31 371
Foundation	Sihtasutus	809	817	851	871	799	801	813	807

Source: Compilation of authors using Statistics Estonia 2016a

Table 4. Features of public enterprises

	Central government			Local governments		
	2002	2013	2014	2002	2013	2014
Size						
Employee per company, no.	423	262	275	43	15	15
Assets per company, MEUR	37,7	122,5	144,2	1,9	6,4	6,8
Equity capital per company, MEUR	28,5	59,4	67,8	1,4	5,3	5,8
Gross sales per company, MEUR	25,1	44,2	43,6	0,9	0,7	0,8
Profit per company, MEUR	1,3	7,2	6,5	0,2	0,9	0,3
Productivity						
Gross sales per worker, TEUR	59,3	168,7	158,4	20,6	47,4	50,7
Profit per employee, TEUR	3,0	27,4	23,5	3,5	57,6	18,6
Profit/equity capital, %	4,4%	12,1%	9,5%	10,8%	16,6%	4,9%
Profit/gross sales, %	5,0%	16,3%	14,8%	17,2%	121,5%	36,7%
Financial stability						
Equity capital/Assets %	75,4%	48,5%	47,0%	73,6%	83,1%	84,9%
Gross sales/Assets %	66,4%	36,1%	30,2%	46,2%	11,4%	11,2%
Debt/Assets, %	24,6%	51,5%	53,0%	26,4%	16,9%	15,1%
Capitalization						
Assets per employee, TEUR	89,3	467,5	524,4	44,6	417,0	452,0
Equity per employee, TEUR	67,4	226,8	246,4	32,8	346,4	383,8
Export						
Export/gross sales		11%	16%		2%	2%

Source: Compilation of authors using Statistics Estonia 2016c

Table 5. Public offices administered by governmental authorities

Type in English	Type in Estonian	Number	Examples
Governmental authority	Valitsusasutus	67	Ministries of Estonia, County Governments, Estonian Competition Authority, Statistics Estonia, Estonian Tax and Customs Board, Prisons etc.
State agency administered by government	Valitsuse hallatav riigiasutus	112	Vocational schools, Museums, State Agencies (The Agricultural Research Centre, Estonian Folk Culture Center),
Rural municipality office	Valla ametiasutus	190	Rural municipality administrations, rural municipality offices
City offices	Linna ametiasutus	65	City administrations, City offices
Agencies administered by rural municipality office	Linna ametiasutuse hallatav asutus	1407	Rural municipality libraries, nursing homes, kindergartens, schools
Militarily organised governmental authority	Sõjaväeliselt korraldatud valitsusasutus	1	Estonian Defense Force
Subnational structural unit of governmental authority	Valitsusasutuse piirkondlik struktuuriüksus	0	
Sub-office of governmental authorities	Valitsusasutuse kohalik asutus	15	Veterinary Centers of all 15 counties
Profit-making state agency	Riigitulundus-asutus	1	State Forest Management Centre
Legal person governed by public law	Avalik-õiguslik juriidiline isik	15	Estonian Bar Association, Universities (Tartu, Tallinn), Estonian Public Broadcasting, Funds (Töötukassa, Estonian Health Insurance, Estonian Development), Estonian Defence League, The Estonian Board of Auditors

Authority, which serves the constitutional institutions	Põhiseaduslikku institutsiooni teenindav asutus	2	Office of the President of the Republic of Estonia, The Office of the Chancellor of Justice
Other state institutions	Riigi muu institutsioon	3	National Electoral Committee, Estonian party finance supervisory committee, The Office of Gender Equality and Equal Treatment Commissioner
Court of Justice	Kohus	7	Regional Courts, Administrative Courts, Tartu Circuit Court
Constitutional institution	Põhiseaduslik institutsioon	5	National Audit Office, Chancellery of the Riigikogu, Bank of Estonia, Supreme Court of Estonia, Tallinn Circuit Court
Agencies administrated by city offices	Linna ametiasutuse hallatav asutus	705	City libraries, nursing homes, kindergartens, schools
Authority of legal person governed by public law	Avalik-õigusliku juriidilise isiku asutus	15	Estonian Academy Publishers, Institutes, libraries, museums and colleges of Tallinn University of Technology
Total		2611	

Source: Compilation of authors using the Register of State and Local Governments Offices 2016

3. Sector Activities and Problems Concerning Estonian Public Enterprises and Their Use for Influencing Foreign Economic Relations

The activities of central state government enterprises concern mainly transportation and storage. Electricity, gas, steam, and air conditioning supply follows. Also important are professional, scientific, and technical activities and state central government engagement in information and communication. Central state firms are also found in sectors like manufacturing, financial and insurance businesses and real estate management (see Table 1).

However, it is also important to look at the foundations and the organizational units not in a company form of private law. Moreover, there are more public units dealing with forestry, education, science, information, culture, and business promotion (see Table 5, see also Friedrich, Ramcke 2007). The central state public enterprises have grown in terms of assets, sales, profits, and capital stock per worker, etc. (see table

4). An example of a public state enterprise of public law is the State Forest Management Centre.

With the local government enterprises, most engagements deal with water supply, sewerage, waste management, and remediation activities. The number of local public enterprises has increased during the last 15 years. Nearly half of the local enterprises providing electricity, gas, steam, and air conditioning supply were lost during that period; however, they are still of importance. Real estate activities are also a domain of local public enterprises, although their number has diminished over the course of time. Local public enterprises are often used for social purposes (see Table 2) As Table 4 indicates, the average size in terms of employment has diminished, and the assets per employee and the equity per employee, as well as gross sales and profit, have increased. It seems that municipalities concentrate their public enterprises more towards profit-making activities. However, there are many organizational units like agencies of cities and rural municipalities which act similar to local public enterprises making no profit (see Table 5).

Public enterprises in Estonia had and have problems. They partly had been bothered by transformation effects, for example, in district heating, water provision, public housing, telecommunication, railways (in technical aspects such as the Russian gauge), airports, and energy (Friedrich, Ramcke 2007). Among the unfavourable effects of transformation were cost increases induced by governmental coalition formation or the blocking of investment decisions by powerful interest groups (Friedrich, Ramcke 2007), too many managers, insufficient management competition from abroad, management quality, and low orientation to public interests. Sometimes installations were not used because it seemed cheaper not to use the infrastructure (e.g. the stadium in Tallinn). A special problem was the theft of electrical lines and poles and energy as well as outdated production processes and wrongly dimensioned capacities. The energy and water prices were high and depended on import prices, exchange rate variations, and the need of public enterprises to finance public heating and water provision by debt because of the low purchase power of clients. Some public enterprises receive hidden subsidies, especially local government enterprises, with respect to salaries, pre-services, interest payments for debts, property assignments, fee policy, etc. (Friedrich, Ramcke 2007). Another problem concerns corruption (European Commission Justice 2014): sometimes high bonuses were paid to members of supervisory boards. With public enterprises there is some rigidity in the labour markets as workers in public enterprises are more organized than in the private sector and the release of employees has to be allowed by the board of directors (Friedrich, Ramcke 2007). Environmental problems from Soviet times continue to be relevant, including radioactive emissions, poor storage facilities, dust management, and resistance to dust management by part of the population and from difficulties in realizing EU environmental protection and energy policies (Friedrich, Ramcke 2007).

Meanwhile, the situation has improved and the legal structure of central state-owned enterprises is more specific and based on the Commercial Code, The State Asset

Act, and the foundation act of the public enterprise (OECD 2011; Raasuke, Raukas, Perli 2013).

The public undertakings have an assembly of owners, e.g. staffed by representatives of owners (central state, municipality). They show a supervisory board, whose members are appointed by the owner, and a management board of the company whose members are appointed by the supervisory board.

The following present problems are under discussion (National Audit Office 2013):

- There seems to be no participation policy showing the need to keep the enterprise public.
- Objectives and the hierarchy and relation of goals are not set for central government public enterprises. In particular, those concerning public service and financial goals are not determined and half of the firms have no approved strategy.
- Despite having a strategy, the central state has increased its capital by hundreds of millions of Euros, e.g. by investing in Eesti Energia and Estonian Air (National Audit Office 2016). There are no declarations why the capital is needed, owner supervision is not efficient, and the supervisory boards do not evaluate the firms' strategies
- The responsibilities and functions of supervisory boards are not clear.
- The Parliament has no say in steering the central state public enterprises. Supervisory board members who are members in Parliament do not have to report to the Parliament and do not perform their functions effectively.

There are still discussions about how to specify and separate state and owners' influence from that of the company management (Porgand et al. 2010; OECD 2011, National Audit Office 2013). On the one hand, there is a plea for more independence for the board of directors for the sake of the company. On the other hand, the National Audit Office and ministers of finance, the environment, the interior, economic affairs, and communication agreed partly to recommend stricter control of the company through the board of supervisors. The management board is not protected enough to operate the firm and its investment under its own power, and the supervisory board is not able to execute all the strategic and long-term management functions. The public enterprise operates under the threat that in times of fiscal crises the firm is used as a cash cow to create revenues by transfer of financial means to the central state to avoid big budget deficits (Friedrich, Nam, Reiljan 2010) and unfunded mandates with the municipalities (Friedrich, Reiljan 2015).

It follows the concept of assignment of management functions as is fixed in the State Asset Act illustrated in Figure 1. With respect to this management structures the:

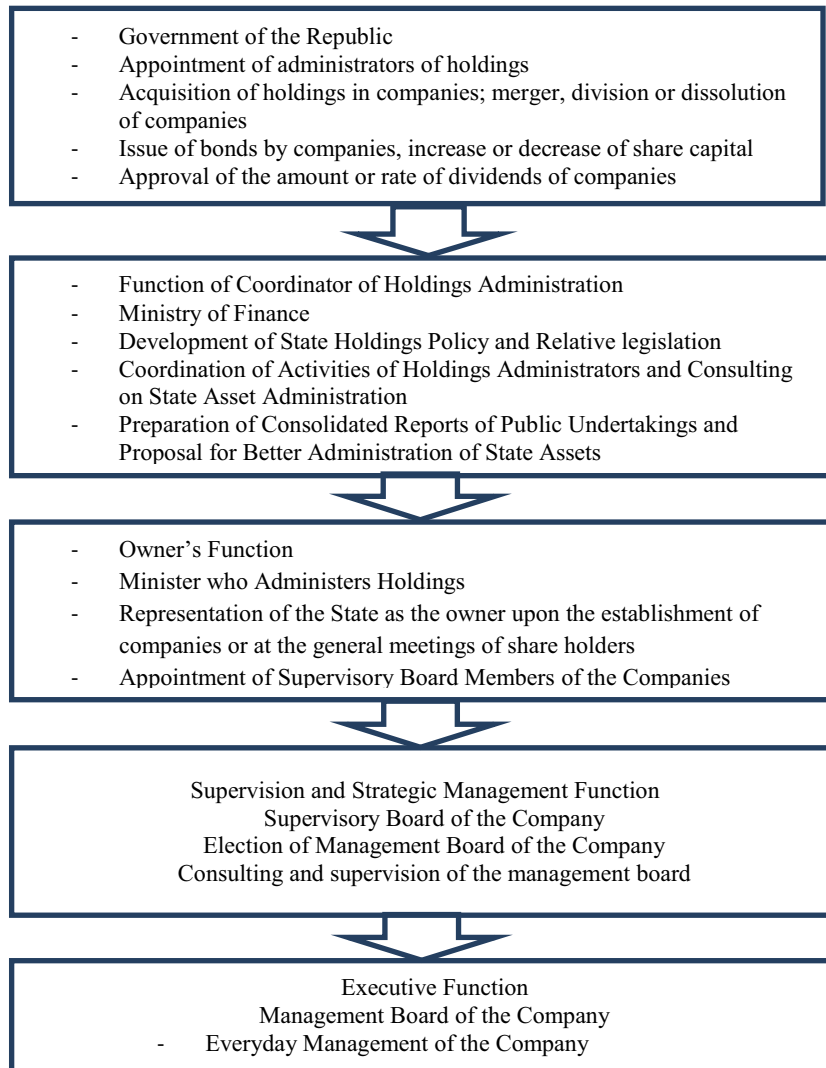


Figure 1. Management structure of companies owned by the State of Estonia
Source: National Audit Office 2013

The lack of strategies for public undertakings' development also implies that explicit applications of public enterprises for foreign economic policy as part of a development strategy is not foreseen, although the involvement of Estonian public enterprises in foreign relations is, for some of them, high. The central bank takes care of part of the currency reserves and deals with the policy and business of the European Central bank according to the rules concerning euro management. Some of the central state public enterprises are directly engaged in exports and imports like public enterprises in forestry, the railways, ports, the prisoner employment company, Eesti Post, infrastructure, road services, etc. The share of exports of their turnover is on average 16% (see Table 4). So-called public foreign trade companies are rare. To some extent this may be the case in forestry. The market power concerning foreign markets seem very restricted, as there are significant competitors. The direct exports of local public enterprises are small, about 2% (see Table 4). However, there might be many expenses for foreign tourists in local government agencies, e.g. fees for foreign visitors or expenditures for health, which are statistically not identified. However, it might be questioned whether they should be more used for foreign policy purposes.

4. The Goals of Public Enterprises as Instruments of Foreign Economic Policy

4.1. The Role of Public Interest in Estonian State Enterprises

State enterprises and public foundations have to act in the public interest (Republic of Estonia (2015). State Asset Act, §10). In the public interest are the purposes of exercising state authority, other public purposes determined by the administrator of public assets, the purpose of earning revenues, and the purpose of preservation of a reserve (Republic of Estonia (2015). State Asset Acts §10). The state enterprises, which should earn revenues, should ensure a reasonable profit (Republic of Estonia (2015). State Asset Acts §10). These amendments are interpreted by the ministry of finance in the way that the three main purposes for participation in state-owned enterprises are:

- The optimisation (rise) of income
- The existence of a big natural monopoly
- Performance of main public services.

(OECD 2011: 51)

In particular, the relations between earning function and other public functions have to be clarified (National Audit Office 2013, p.13). These interpretations of public interest partly coincide with the three main concepts of interpretation for the reasons public enterprises exist.

4.2. Public Enterprises as a Means to Maximise Welfare

The first concept is based on conventional welfare theory and attempts to answer the question of how public enterprises should behave in order to contribute to welfare maximisation (see Nordin 1947; Graaff 1963; Nelson 1964; Rees 1968, 1984, 2006; Rittig 1977; Friedrich 1978; Blankart 1980; Bös 1981, 1986; Brown, Sibley 2008; Frischmann, Hogendorn 2015). It leads to pricing rules like marginal cost pricing (Rees 2006) and investment rules (Friedrich 1969). Today discussion surrounds how welfare is influenced by privatization and pricing if foreign competition prevails (Harris, Wiens 1980; OECD 2001; Chao, Yu, 2006; Van Long, Sähler 2009; Ghosh, Mitra, 2010; Wang, Wany, Tang, Lee 2011; Matsumara, Ogawa 2012; Mc Corrison, Mc Laren 2013; Ghosh, Mainpushpak, Saha 2015). The welfare functions in use are mostly individualistic ones maximising consumer benefits. Seldom do other welfare functions get used, e.g. vote maximisation (Pelzman 1971, 1976; Ziemes 1992; Dehne, Friedrich, Nam 2004) or political restrictions to individual welfare (Bös 1986) introduced². In Estonia, the welfare approach, based on a Benefit Cost Approach,³ is not followed by the central government, ministry of finance, supervisory board members, or management boards. No welfare-based management tools are applied in business activities apart from some project judgements where evaluations by the European Union play a role. There is only the loose argument for intervention when necessary for the avoidance of market failures stemming from natural monopolies. An argumentation for also applying public firms for welfare purposes by influencing exports and imports—as mentioned in the newer welfare-oriented discussion—was not formulated.

4.3. Public Enterprises as Instruments For Attaining Social Sustainability

According to Ritschl (1925, 1970), the second argument refers to a dual economy in which the public sector has to safeguard the sustainability of society and the private sector organises production with rather limited external effects (Hirsch 1992). Here a pricing and investment policy in the public sector ought to be established to adequately accomplish this basic task. The difficulty is that there is no mathematically formulated socio-economic model for a sustainable society. There are approaches that deal with sustainability in the sense of preservation of nature and

² A different welfare function named public interest function is applied later in this article which shows a specific form of the third approach and refers to welfare as economic objectives, like employment, international traded outputs, and domestic outputs.

³ The Social net benefit can be interpreted as $NB(X) = \text{Consumer surplus}(X) + \text{Turnover}(X) + \text{Positive Value of External effects}(X) - \text{Producer surplus as factor price distortion}(x) - \text{Costs}(X) - \text{Negative Value of External Effects}$. The items are measured in money terms applying the willingness to pay approach. Differentiation gives: $\partial NB/\partial X = \partial X \text{ Consumer surplus}/\partial X + \partial \text{Turnover}/\partial X + \partial \text{Positive value of external effects}/\partial X - \partial \text{Producer surplus as factor price distortion}/\partial X - \partial \text{Costs}/\partial X - \partial \text{Negative Value of External effects}/\partial X = 0$. If the external effects and factor distortions do not exist, the price has to equal marginal costs (short term) to steer production and long-term marginal costs to guide investments. (Erma, Friedrich 2013).

environment and how to regulate economic activities to serve that purpose, e.g. to reduce emissions, but rules and regulations about the adequate share of public sector activities in operations and investments to safeguard society are missing. Appropriate recommendations are available only for some sectors. A formula about the optimal mix of private and public activities to determine a survival path for Estonia in times of steady decrease of population is not at hand. Therefore, the volume of export and import activities of state enterprises and their involvement in foreign economic relations also cannot be determined as a tool for guiding the activities of the ministry of finance or a supervisory board. The reasons for participation mentioned above can be based on fears that private enterprises, for example, those in the possession of foreign owners, do not act in favour of the population, such as banks owned by foreign owners in the case of European Union collapse. In the framework of this approach, public enterprises may serve to reduce conflicts between social interest groups such as professions, classes, income groups, sectors, ideologies in order to avoid dangers of unrest in society. Thus, public enterprises assist in safeguarding the survival of society.

4.4. Public Enterprises as Instruments for Achieving Public Policy Aims

A third group of experts consider public enterprises a means for public policy to accomplish specific objectives (Weiser 1960; Thiemeyer 1964; 1975; 1978; Oettle 1983; Thiemeyer, Chmielewicz, Eichhorn 1989, Thiemeyer, Cox 1990; Machura 1993; Theuvsen 2012; Papenfuß 2012). In other words, fees and investments should be primarily fixed to realise such public goals. This relates more to the interpretation of public interest provided by the ministry of finance and the stipulations in the state asset act mentioned above. The group of public enterprise goals comprise social, state, economic, business management, political, and sector-specific goals (Eichhorn, Friedrich 1976; Friedrich 1977; Krönes 1998). The goals of the ministry of finance deal with part of the economic goals concerning the fiscal goals and those goals dealing with natural monopolies and sector goals that need public services to be attained. So far, Estonian politicians have turned to the third interpretation of public enterprises as instruments for performing public goals⁴. This aim-oriented interpretation of tasks and goals of the Estonian public central government opens similar interpretation to the municipal ones. In principle, public enterprises can be instruments for influencing Estonian foreign economic relations if public enterprises affect goal achievement concerning external trade and services, capital flows abroad, and the distribution of wealth and property between domestic and non-residential inhabitants and firms, etc.

A small country like Estonia is surrounded by bigger and more powerful countries. It is embedded in networks, such as the common market, customs union, a currency union, and a military alliance with more powerful partners of other heritage, culture, and language. A small country may depend on traffic connections through other

⁴ However, the operationalisation of these goals as elements of management by objectives is lagging in practice.

countries and its military and security forces are small. Therefore, many instruments of public policy, such as monetary policy, might not be available. Fiscal policy is ineffective because demand and supply is dominated by economic units located in other countries.

For Estonia the presence of public enterprises seems particularly appropriate because:

- The integration processes lacks possibilities of application of some traditional instruments of foreign economic policy, such as tariffs, quota systems to practise monopolistic trade policy. Indirect trade policy measures like discriminations, administrative procedures, technical norming, licensing, security requirements, subsidies, promoting export finance, support of marketing, investment become difficult to handle.
- The integration processes of Estonia restrict the exchange rate policy and control of payment.
- Private Estonian firms are touched by governmental decisions in bigger countries or by EU regulation based on inner circumstances in the bigger countries, e.g. in banking.
- Domestic economic policy is hindered by foreign firms if the proportion of foreign firms is too high.
- Investment decisions and innovation activities are directed to the home country of foreign owners. The smaller country is kept as a resource and a cheap labour reserve.
- The economic units of the small country take the role of a price taker, and it sometimes has to bear the costs of adaptation to new economic situations.
- Small countries have to concentrate their economic forces to keep key industries alive and to ensure economic and political survival.

The small country should not completely follow the goals of governments of other countries, a supra-national government such as the European Union, or powerful international firms. Therefore, to achieve its own aims it needs to develop a vast set of instruments for public policy. There might be a two-level goal approach concerning the goals of government and the goals of public enterprises used as instruments to realise the goals by public enterprises. A utility and goal analysis of the central government, such as in Parliament, governmental bodies, ministries, etc., takes place where the general public interest for public firms are formulated (see above). The goal determination process for individual public enterprises follows in the decision organs of the public firm. In favour of using public firms, in particular for foreign trade policy, are the following arguments.

- To ensure small countries rests of monetary autonomy the central bank should be a public firm to be more independent of political constellation in big countries.

- Public firms may buy firms abroad to open new export relations and access to innovations. They may get access to transnational networks or become competitors against private or public foreign enterprises.
- Public firms open possibilities for performing functions continuously over legislative and governmental periods, and for establishing long-term engagements with foreign partners.
- Facilitation of the transfer of expertise.
- They sometimes allow direct public interventions abroad and the use of subsidiaries there.
- The visibility of external trade policies through public firms is less and resistance against domestic and international trade policy measures is reduced.
- Off-budget financing of foreign economic policy measures is easier, and greater flexibility for foreign economic policy actions is facilitated.
- For public firms it could be necessary to achieve financial support from the EU.
- Quick reaction and specialization opportunities can be used.
- Smooth cross-border cooperation by public-public partnerships (PPP).
- Better position to overcome trade barriers and difficulties caused by foreign currency policy.
- Organizing market power and influencing market forms in foreign trade by small countries' public firms.
- Extracting rent from foreign economic units through high prices, e.g. tolls, hospital prices, lift prices, railway, water, airfares, etc.
- A small country can prevent its environment and resources from being exploited by foreign enterprises through exporting public enterprises.
- By means of public participation, the small country prevents important industries from being sold to foreigners.

Arguments against applying public firms for economic foreign policy operations stem from:

- Goal conflicts between public firm policy and the needs of foreign economic policy.
- Necessities of self-financing and market developments may reduce the benefits from using public enterprises abroad.
- The politics of public enterprise to dominate the small country's foreign economic policy.
- Public firms becoming more independent from the government by creating power centres abroad through foreign capital, trade, etc.
- Public firms undertaking risky investments abroad, practicing tax avoidance policies, interrupting possible innovative contacts between clients and suppliers, and directing exports and imports into their own network.
- Difficulties in financial management and company steering because of legal company forms giving autonomy to firms and the lack of public experts in supervisory bodies.

Apart from small countries' central government enterprises, regional or municipal enterprises engage in foreign economic policy. They are involved in regional competition and business promotion to attract investors or they back the activities of exporting municipal enterprises such as hotels, fairs, zoos, museums, theatres, operas, universities, institutions of higher learning, hospitals, airports, ports, ferries, traffic companies, touristic infrastructure, regional banks, agricultural public firms like wineries, energy and water provision, etc. They also promote existing private firms and apply municipal firms for territorial, industrial, and population development and to support the local public sector itself to achieve higher efficiency in regional competition.

The public firms themselves may be interested in becoming involved in economic foreign relations:

- To gain a wider procurement basis, e.g. concerning energy, raw materials, knowledge.
- To widen their public functions or to create profit-making subsidiary firms used for internal subsidization, and to widen their financing.
- To enter new markets to gain advantages over competitors, to extend monopolistic privileges, or to grow in the big country.
- To receive more public support and try to attain more autonomy in relation to the public owner.
- To improve the career chances of their staff and managers

Compared to direct measures of foreign economic policies like tariffs and quotas, public enterprises offer adequate solutions as instruments only in limited cases. However, state and municipal firms can be used for foreign economic relation purposes. To evaluate practical cases, intensive inquiries are necessary to detect their comparative advantages.

5. A Two-region Model of Using Public Enterprises in Foreign Economic Relations

5.1. The Two-Country Case

In a two-country model (Friedrich 1987) the authors consider a small country 1 (e.g. Estonia) and a big country (the EU and/or rest of the world) called country 2, which is rather large in terms of employment opportunities there. There exist two international goods labelled X_{11} , X_{21} and X_{12} , X_{22} . They are produced by labour. In a first attempt all goods are international goods. Production functions exist for these goods. Output depends on input of labour L_{11} , L_{21} , and L_{21} , L_{22} . The total labour force equals L_1 in country 1 and L_2 in country 2. Unemployment is indicated as U_1 and U_2 . The demand in the two countries is N_{11} , N_{21} , N_{12} , N_{22} for the goods X_{11} , X_{12} , X_{21} , X_{22} . It depends on the sector production from the inland, which stems from the

labour force in a country, from the employment situation in the sectors of the country and from the other country depending on the real wage differences.

For the sake of simplicity, the authors assume that the real wage equals the marginal products of industries as industries offer goods according to the equivalence of marginal product and factor price. Factors are not mobile between the countries. The small country is a price taker. It can sell production surpluses to the big country and import from the big country. For the small country, high values of reaction of demand to real wage differences between the countries are not assumed as the trade is relatively small in volume. For these conditions the size of the resulting real wages w_{11} , w_{12} and w_{21} , w_{22} can be determined.

Further is supposed that the public interest of the small country with respect to application of public enterprises is formulized in the following way:

The government of the small country, e.g. the central government, positively values:

- The existence of international goods within its territories (e.g. to guarantee future technical capabilities, military purposes, safeguarding resources) (related to X_{11} , X_{21}).
- The provision with goods demanded in the small country (e.g. provision of public services, allocation and distribution goals) (related to N_{11} , N_{21})
- A high level of employment (e.g. stabilisation distribution, social goals) (related to $U_1 = L_1 - L_{12} - L_{21}$).

Such a public interest function may have the following form for the small country 1:

$$\text{Public Interest}_1 = ma_{11} * X_{11}(w_{11}(L_1, L_2)) + ma_{21} * X_{21}(w_{21}(L_1, L_2)) + mn_{11} * (N_{11}(L_1, L_{11}(w_{11}(L_1, L_2))), L_{21}(w_{21}(L_1, L_2))) + mn_{21} * (N_{21}(L_1, L_{11}(w_{11}(L_1, L_2))), L_{21}(w_{21}(L_1, L_2))) - \mu_1 * (L_1 - L_{11}(w_{11}(L_1, L_2)) - L_{21}(w_{21}(L_1, L_2)))$$

If the population L_1 of the small country changes (e.g. through more or less fertility) the change in public interest will be:

$$ma_{11} * \frac{\partial X_{11}}{\partial w_{11}} * \frac{\partial w_{11}}{\partial L_1} + ma_{21} * \frac{\partial X_{21}}{\partial w_{21}} * \frac{\partial w_{21}}{\partial L_1} + mn_{11} * (\frac{\partial N_{11}}{\partial L_1} + \frac{\partial N_{11}}{\partial L_{11}} * \frac{\partial L_{11}}{\partial w_{11}} * \frac{\partial w_{11}}{\partial L_1} + \frac{\partial N_{21}}{\partial L_{21}} * \frac{\partial L_{21}}{\partial w_{21}} * \frac{\partial w_{21}}{\partial L_1}) + mn_{21} * (\frac{\partial N_{21}}{\partial L_1} + \frac{\partial N_{21}}{\partial L_{11}} * \frac{\partial L_{11}}{\partial w_{11}} * \frac{\partial w_{11}}{\partial L_1} + \frac{\partial N_{21}}{\partial L_{21}} * \frac{\partial L_{21}}{\partial w_{21}} * \frac{\partial w_{21}}{\partial L_1}) - \mu_1 * (1 - \frac{\partial L_{11}}{\partial w_{11}} * \frac{\partial w_{11}}{\partial L_1} - \frac{\partial L_{21}}{\partial w_{21}} * \frac{\partial w_{21}}{\partial L_1})$$

If the population in the small country increases, the production in both sectors and the provision of goods also increase. This may lead to a higher degree of public interest. These effects are lessened by an increase in unemployment, even though employment in the individual sectors may increase. With a reduction in population as is occurring in Estonia, the signs in the expressions change. The public interest is served less if the negative production and provision effects dominate the

unemployment reductions. The sizes of the effects depend on the evaluation weights and on the parameter sizes and kinds of functions applied in the two-country model.⁵

An extended model (Friedrich 1987) can also tackle the existence of domestic sectors X_{31} , X_{32} , which produce non-traded goods. A reduction in population like in Estonia also reduces the production in the national sector and therefore additional negative production and provision effects exist. Unemployment is decreasing.

5.2. Results of the Small Country Using Efficient and Inefficient Public Enterprises

In times of population decrease, the small country could employ public enterprises to:

- Avoid drastic production cuts in branches under pressure
- Prevent a goods provision reduction
- Stabilize employment.

Within the model, the authors consider the existence of public enterprises in three ways.

- (1) In contrast to private enterprises maximising profit, efficient public enterprises maximize output under the conditions of covering full costs. Then the costs are covered, but the output, e.g. X_{21} , leads to negative marginal profits, which leads to a correction of the value of the marginal product (Friedrich 1987). The public enterprise acts as if the real wage level is lower and the output and demand increases. Employment of L_{21} increases and unemployment decreases.
- (2) In a second case, the authors assume that the public enterprise, through power or special subsidies to workers, could lower the wages, e.g. in sector X_{21} . This results in an increase of output⁶ in the higher provision of goods and in additional employment L_{21} .
- (3) Finally, the public enterprise can just stabilize employment L_{21} . As long as the production function does not change, the results under (1) are achieved.

If the public interest function is differentiated with respect to the marginal loss the change in public interest shows that the public enterprise (case 1) ensures a higher production level, an improvement in goods provision, and a decrease in unemployment. The situation improves compared to the case without public enterprises (Friedrich 1987). If real wages are lowered by public enterprise in the small country, e.g. in sector 21, the change in public interest turns out to be positive too (Friedrich 1987) in case (2). The consideration of case (3) leads to a positive change of public interest.

⁵ Additional effects can be considered which influence the real wages and change the terms. In this way changing conditions in the sectors and factor flows can be considered as well.

⁶ With the subsidy case a budget equations and taxes, etc. should be introduced. The power case can be tackled by the model.

The model comprising domestic goods can be considered as well. In addition, even in the domestic goods sector the public enterprises show similar effects. In the case of population reduction, public enterprises can reduce the implied losses of public interest because of their public interest-increasing effects. (Friedrich 1987)⁷.

So far, we have dealt with efficient output maximising public firms covering costs, which are sometimes called type II (Friedrich 1987, 1988; Dehne, Friedrich, Nam 2009). There are also public enterprises of type I whose management is interested in high output as well as in high employment (Friedrich 1987, 1988; Dehne, Friedrich, Nam 2009) in the framework of covering costs. Other public enterprises possessing management interested in maximising employment when covering costs are called type III. Public enterprises that cover costs but minimize efforts are categorized as type IV. Type V, particularly with private enterprises, maximises profit. Other management types, those of type VI, are interested in high profits but also in high employment. According to Leibenstein (1975), only type II public enterprises and type V firms produce efficiently.

The type I, type II, and type III produce more than a profit maximising firm does. They employ more labour and they show, as cost-covering public enterprises, a negative marginal profit. Type II and type III are inefficient in the sense that they do not minimize costs. Therefore, the results gained above hold as well. Their use is in the public interest according to the public interest function.

Type V, the “profit maximising firm”, does behave like a private enterprise and shows no favourable change concerning public interest. The inefficient type IV public enterprise produces even less than the profit maximising firm. When applied, such public enterprise reduces the degree of achieved public interest according to the authors’ public interest function. The type VI private enterprise produces a higher amount of output than the profit maximising firm does. Therefore, this firm could be

⁷ When autonomous and interest rate-dependent investment are introduced in the model and a given money supply is assumed, the real wages will shrink. Then the degree of public interest fulfilment is higher as employment and production increases. The employment increase brings about an increased money demand and an interest increase insofar as the money supply remains unchanged. The following investment reductions decrease the degree of public interest achieved. The total public interest effect depends on the parameter values supposed. Population decrease again lowers the public interest level, but the lower real wages stabilize employment, smoothing the loss of public interest. Introducing public enterprises results in higher production and stabilization of employment. Improvements of public interest can be expected. If migration is introduced and if the immigration parameter into the small country is very small, then unemployment in the small country can be reduced by migration, which leads to an increase in public interest. If L1 gets much reduced then there can be negative production effects, which are not in the public interests either. Which effect dominates depends on the parameter value and the weights in the public interest function.

forced by regulations to produce more than type III and can increase the degree of public interest achievement.

If the population shrinks, public enterprises of type II, type I, and type III can help to improve the situation in the public interest. However, a reduction of type IV public enterprises may benefit the small country. The existence of type IV public enterprises would make situation worse. Whether type VI private firms are more beneficial than type I and type III public firms has to be judged case by case. Undoubtedly, type II public enterprises offer the most favourable scale of operations to serve the public interest of a small country with a decreasing population.

However, the public management theory and literature offers only vague recommendations to ensure type II public enterprises, e.g. through moral suasion and education of management, regulations, constraints regarding the utility function of management, restrictions to labour input (like staff cones), etc. Many public enterprises are of type I. Moreover, it should be noted that the underlying model allows for unemployment.

6. Conclusions

The authors point to the importance of public enterprises for Estonia, which is experiencing a population decrease. There are public enterprises of the central state and of the municipalities' active in many sectors. In Estonia, there are actual discussions about their management problems and how public enterprises should be applied to increase the welfare of the country. The management problems are associated with the ideas of introducing management by objective concept to control the Estonian public enterprises. Some of the public enterprises are incorporated into the foreign economic relations of Estonia through their tasks, e.g. the central bank as part of the Euro Bank system, or through their export and import activities and their provision of services to promote sectors, firms, and foreigners, which are involved in foreign economic relations.

How public enterprises can be used for a small country to influence Estonian foreign economic relations is discussed. The discussion gives hints about the advantages of public enterprises in general and when engaged in foreign economic relations. In Estonia, central state public enterprises should increase income, govern natural monopolies, and perform public services. Three schools of thought dominate the general debate on the economic application. One considers public enterprises as instruments for maximising individual social welfare. The second one concentrates on guaranteeing the survival of society. The third one deals with the individual goals the public enterprises have to achieve. The authors mainly follow this last school of thought; however, they partially include the second school of thought, considering the tasks of public enterprises for society,

A combination of macroeconomic modelling, public interest analysis and microeconomic theory of a public firm serves well as a framework for analysis. A

rather simple two-country model is used to introduce public enterprises into international trade. There is a small country and a big one showing the production of internationally traded goods and national traded goods. In contrast to an individual social welfare approach, the small country shows a public interest function (non-individualistic welfare function) which positively values production, the provision of services demanded, and employment. Equilibrium with respect to real wages is looked for. Then the case of a shrinking population is introduced, which leads to a loss in public interest through a decrease in production and provision of goods, but the decrease in unemployment is in favour of higher public interest realization.

Small countries are able to increase public interest fulfilment by means of public firms because they create high output, high domestic demand and a high level of employment compared to profit-maximising firms which adapt to international market conditions at the expense of the public interest of the small country.

The cases of efficiently (type II, type V) and inefficiently producing firms are considered (type I, type IV, type VI). Sometimes even inefficiently producing public firms of type I and III allow the small country a higher degree of public interests fulfilment than with profit-maximising firms (type V) or private firms of type VI. Type IV public enterprises cannot be applied successfully; they are inferior to all other types of public and private enterprises.

The small country can apply public enterprises to reduce deterioration of public interest. The degree of public interest attainment depends greatly on the evaluation weights assigned by the small country to production, to levels of production, provision of goods, and employment.

These are only the first steps of analysis. The underlying production functions of the model should be extended to other forms and more production factors. The analyst should involve factor migration and a capital and money market. Moreover, the budgets of jurisdictions should be included and the subsidization issue touched. The contribution of the authors show that an approach based on Ritschl and the thoughts of colleagues dealing with public enterprises as instruments of economic and jurisdictions' policy points to possibilities to benefit small countries with shrinking population to improve.

References

1. **Ambrosius, G.** (1984). *Der Staat als Unternehmer*. Baden Baden: Nomos.
2. **Ambrosius, G.** (1987). *Merkantilismus, Kameralistik und öffentliche Wirtschaft – Überblick, Forschungsstand und forschungsrelevante Probleme*. *Zeitschrift für öffentliche und gemeinwirtschaftliche Unternehmen*, 10, 231-245.
3. **Blankart, Ch.** (1980). *Ökonomie der öffentlichen Unternehmen*. München: Vahlen.
4. **Bös, D.** (1981). *Economic Theory of Public Enterprise*. Berlin, New York: Springer.

5. **Bös, D.** (1985). Public Sector Pricing. Auerbach, J.A., Feldstein, M. (Ed.), Handbook of Public Economics, Vol.1, Amsterdam et al., 126-311: Elsevier.
6. **Bös, D.** (1986). Public Enterprise Economics: Theory and Application. Amsterdam New York: North Holland, Elsevier.
7. **Brede, H.** (2005). Grundzüge der öffentlichen Betriebswirtschaftslehre. München: De Gruyter Oldenbourg.
8. **Brown, S., Sibley, D.** (2008). The Theory of Public Utility Pricing. Cambridge, UK: Cambridge University Press.
9. **CEEP** (2006). Die Entwicklung der öffentlichen Unternehmen und der Unternehmen von allgemeinem wirtschaftlichem Interesse in Europa seit 1996. Ihr wirtschaftlicher Einfluss in der Europäischen Union. Statistische Jahrbücher des CEEP 2000. Website of the CEEP (20. December 2004), <http://www.ceep.org/statistics/StatEUsumDe.doc>.
10. **Chao, C.-Ch., Yu, Eden S.** (2006). Partial Privatization, Foreign competition and Optimum Tariff. Review of International Economics, 14, 87-92.
11. **Clifton, J., Diaz-Fuentes, D.** (2008). The New Public Service Transnationals. Work Organization, Labour and Globalization, 2, 23-39.
12. **Cox, H.** (1997). Strukturwandel und Paradigmenwechsel in der öffentlichen, sozialen und gemeinwirtschaftlichen Wirtschaft. Zeitschrift für Gemeinwirtschaft, 1997, 3, 50-61.
13. **Dehne, A., Friedrich, P., Nam, C.W.** (2009). Determination of Fees for Local Services under the Consideration of Public and Management Objectives. Zeitschrift für öffentliche und gemeinwirtschaftliche Unternehmen, 32, 1-18.
14. **Detig, S.** (2004). Die kommunale Anstalt des öffentlichen Rechts als Wirtschaftsförderungsinstitution. Baden Baden: Nomos.
15. **Eerma, D., Friedrich, P.** (2013). Social Accounting as an Innovative Approach to University Accounting. International Business: Innovations, Psychology, Economics, 3, 7-34.
16. **Eichhorn, P., Friedrich, P.** (1976). Verwaltungsökonomie I. Baden Baden 1976: Nomos.
17. **European Commission.** (2014). Estonia to the Anticorruption report, Annex 6. Brussels, COM (2014)38 final, [eu.europa.eu/dgs/home-affairs/what-we-do/policies/organized-crime-and-human-trafficking/anti-corruption-report/docs/2014_acrestonia_chapter_en.pdf](http://europa.eu/dgs/home-affairs/what-we-do/policies/organized-crime-and-human-trafficking/anti-corruption-report/docs/2014_acrestonia_chapter_en.pdf) (last access july 2016).
18. **Friedrich, P.** (1969). Volkswirtschaftliche Investitionskriterien für Gemeindeunternehmen. Tübingen: Mohr.
19. **Friedrich, P.** (1977). Die Operationalisierung der Unternehmensziele. Eichhorn, P. (Ed.), Auftrag und Führung öffentlicher Unternehmen, Berlin, 107-127: Duncker und Humblot.
20. **Friedrich, P.** (1978). Ausrichtung der Preisbildung öffentlicher Unternehmen am Grenzkostenpreisprinzip bei differierenden Marktformen. Gesellschaft für öffentliche Wirtschaft und Gemeinwirtschaft (Ed.). Kosten und Preise öffentlicher Unternehmen, Berlin, 90-129: Allgemeine Verlagsgesellschaft.
21. **Friedrich, P.** (1987). Ordnungspolitische Rahmenbedingungen und öffentliche Unternehmenstätigkeit. Thiemeyer, Th. (Ed.), Öffentliche Unternehmen und ökonomische Theorie, Schriftenreihe: Öffentliche Dienstleistungen, Vol. 28, Baden Baden, 15-51: Nomos.

22. **Friedrich P.** (1988). X-ineffizienz ein ausschlaggebendes Privatisierungsargument. Brede, H. (Eds.), *Privatisierung und die Zukunft der öffentlichen Wirtschaft*, Schriften der Gesellschaft für öffentliche Wirtschaft, Vol.29, Baden Baden, 235-236: Nomos.
23. **Friedrich, P., Ramcke, K.** (2007). Öffentliche Unternehmen in Estland. *Zeitschrift für öffentliche und gemeinnützige Unternehmen*, 30, 89-105.
24. **Friedrich P., Reiljan, J.** (2015). The Unfunded Mandates in Local Government Financing. *Estonian Discussion Economic Policy*, 28 (1), 29–61.
25. **Friedrich, P., Nam, W., Reiljan, J.** (2010). The Need of Municipal Fiscal Equalization Reform in Estonia. *Discussions on Economic Policy*, 18, 52-73.
26. **Friedrich, P., Timpmann, K., Ukrainski, K.** (2014). *Teaching Public Management: Between Academic Disciplines*, Tartu: Sihtasutus Archimedes.
27. **Friedrich, P., Ülper, A., Ukrainski, K.** (2014). *Shrinking Cities and Processes in Estonia*. Nam, C.W., Richardson, H. W. (Eds.), *Shrinking Cities A Global Perspective*, New York, 119-137: Taylor and Francis.
28. **Frischmann, B. M., Hogendorn, Ch.** (2015). Retrospectives, The Marginal Cost Controversy. *Journal of Economic Perspectives*, 29, 193-206.
29. **Ghosh, A., Mitra, M.** (2010). Comparing Bertrand and Cournot in Mixed Markets. *Economic Letters*, 109, 72-74.
30. **Ghosh, A., Mainpushpak, M., Saha. B.** (2015). Privatization, Underpricing and Welfare in the Presence of Foreign Competition, *Journal of Public Economic Theory*, 17, 433-460.
31. **Graaff, J. de V.** (1957). *Theoretical Welfare Economics*. Cambridge: United Press.
32. **Harris, G., Wiens, E.** (1980). Government Enterprise: An Instrument for Internal Regulation of Industry. *Canadian Journal of Economics*, 13, 125-132.
33. **Hirsch, H.** (1992). Hans Ritschls Theorie der öffentlichen Unternehmen als Element einer Theorie der Staatswirtschaft im Vergleich mit den von Dieter Bös und Charles Blankart vorgelegten Theorien. Friedrich, P. (Ed.). *Beiträge zur Theorie öffentlicher Unternehmen*, *Zeitschrift für öffentliche und gemeinnützige Unternehmen*, Beiheft 14, 20-44.
34. **Krönes, G.** (1998). Operationalisierung von Zielen öffentlicher Unternehmen. *Zeitschrift für öffentliche und gemeinnützige Unternehmen*, 21, 277-292.
35. **Laux, J. K.** (1984). *Public Enterprises and Canadian Foreign Policy*. Publius, 14, 61-80.
36. **Leibenstein, H.** (1975). Aspects of the X-Efficiency Theory of the Firm. *Bell Journal of Economics*, 6, 580-606.
37. **Mac Maken, R.** (2014). *Mercantilism Never Went Away*. Auburn, Alabama: <http://mises.org/block/mercantilism-never-went-away> (last access 8.5.2018).
38. **Machura, St.** (1993). *Die Kontrolle öffentlicher Unternehmen*. Wiesbaden: Deutscher Universitätsverlag.
39. **Matsumara, T., Ogawa, A.** (2012). Mixed Oligopoly and Free Entry Markets. *Journal of Economics*, 101, 213-230.
40. **Mc Corrison, Mc Laren** (2013). Redistribution, State Trading Enterprise and Politically Optimal Tariffs. *Canadian Journal of Economics*, 46, 1351-1379.
41. **Naarits, A.** (2016). *Eesti statistika aastaraamat. 2015. Statistical Yearbook of Estonia*, Tallinn: Statistical Office of Estonia.

42. **National Audit Office** (2013). Organisation of Management of Public Undertakings, Report of the National Audit Office to the Riigikogu, 11. 9. 2013. Tallinn: National Audit Office.
43. **National Audit Office** (2016). The Government Rushed its Decisions about Estonian Air and Gave the Airline Tens of Millions Without Giving the Matter Enough Consideration, press release from 24.5. 2016. Tallinn: National Audit Office.
44. **Nelson, J. R.** (1964). Marginal Cost Pricing in Practice. Englewood Cliffs, New York: Prentice-Hall.
45. **Nordin, I. A.** (1947). The Marginal Cost Controversy – A. Reply. *Economica*, New Series, 14, 134-149.
46. **OECD** (2001). State Trading Firms in Agriculture. Paris: OECD Publication.
47. **OECD** (2011). Corporate Governance in Estonia. Paris: OECD Publishing.
48. **Oettle, K.** (1983). Das öffentliche Unternehmen als Instrument staatlicher Politik. Sonderheft 4, Bonn, 5-34: Deutsche Sektion des internationalen Instituts für Verwaltungswissenschaften.
49. **Papenfuß, U.** (2012). Verantwortungsvolle Steuerung und Leitung öffentlicher Unternehmen. Wiesbaden: Springer Gabler.
50. **Peltzman, S.** (1971). Pricing in Public and Private Enterprises: Electric Utilities in the United States. *Journal of Law and Economics*, 14 (1), 109-147.
51. **Peltzman, S.** (1976). Toward a More General Theory of Regulation. *Journal of Law and Economics*, 19, no. 2, pp. 211-240.
52. **Porgand, T. et al** (2010). Corporate Governance, Accountability and Transparency, A Guide for State Ownership. OECD, Paris: OECD Publication.
53. **Raasuke, E., Raukas, R., Perli, A.** (2013). Ettepanekud Eesti Vabariigi äriühingute valitsemise korraldamiseks. Aruteludokument, Tallinn, https://www.mkm.ee/sites/default/files/content-editors/failid/Majandusareng/master_omandusukus_final_28082013.pdf
54. **Rees, R.** (1968). Second-Best Rules for Public Enterprise Pricing. *Economica*, 35, 260-273.
55. **Rees, R.** (1984). The Public Enterprise Economics. London: Weidenfeld and Nicholson.
56. **Rees, R.** (ed.) (2006). The Economics of Public Utilities. Cheltenham, Northampton: Edward Elgar.
57. **Reinermann, H., Roßkopf, CH.** (2000), Merkantilismus und Globalisierung. Baden Baden: Nomos.
58. **Reinert, E. S.** (1999). The Role of the State in Economic Growth. *Journal of Economic Studies*, 26, 268-326.
59. **Republic of Estonia** (2015). State Assets Act. Riigi Teataja, Tallin, http://riigiteataja.ee/en/compare_original?id=526015001.
60. **Ritschl, H.** (1925). Theorie der Staatswirtschaft und Besteuerung. Bonn: K. Schroeder.
61. **Ritschl, H.** (1970). Zur Theorie der Staatswirtschaft. Heinz Haller, et al. (Eds.), Theorie und Praxis des finanzpolitischen Interventionismus. Tübingen, 47–66: Mohr.

62. **Rittig, G.** (1977). *Gemeinwirtschaftsprinzip und Preisbildung bei öffentlichen Unternehmen unter volkswirtschaftlichen Gesichtspunkten*. Frankfurt a. M.: Europäische Verlagsanstalt.
63. **Sombart, W.** (1928). *Der modern Kapitalismus, Vol. 2, Das europäische Wirtschaftsleben im Zeitalter des Frühkapitalismus*. München, Leipzig: Duncker& Humblot.
64. **Statistics Estonia** (2016a). *Enterprises in the statistical profile by legal form and economic activity (EMTAK 2008)*. http://pub.stat.ee/px-web.2001/Dialog/varval.asp?ma=RE029&ti=enterprises+in+the+statistical+profile+by+legal+form+and+economic+activity+%28emtak+2008%29&path=../I_Databas/Economy/06Economic_units/04Entrepreneurs/&lang=1. 10.06.2016.
65. **Statistics Estonia** (2016b). *Enterprises in the statistical profile by type of owner and economic activity (EMTAK 2008)*. http://pub.stat.ee/px-web.2001/Dialog/varval.asp?ma=RE026&ti=ENTERPRISES+IN+THE+STATISTICAL+PROFILE+BY+TYPE+OF+OWNER+AND+ECONOMIC+ACTIVITY+%28EMTAK+2008%29&path=../I_Databas/Economy/06Economic_units/04Entrepreneurs/&lang=1. 10.06.2016
66. **Statistics Estonia Office** (2016). *State and local government offices types. Register of State and Local Governments Offices 2016*. <http://register.fin.ee/register/index.php?tunnus=kompleks>. 10.06.2016
67. **Statistics Estonia Office** (2016). *State and local government owned enterprises financial indicators 2013-2014, data received by inquiry from Statistics Estonia Office*. Statistics Estonia 2016c.
68. **Stavenhagen, G.** (1969). *Geschichte der Wirtschaftstheorie*, Göttingen: Van den Hoek and Ruprecht.
69. **Theuvsen, L.** (2012). *Instrumentalfunktion von Stadtwerken*. Bräuning, D, Gottschalk, W. (Eds.), *Stadtwerke, Baden Baden*, 101-121: Nomos.
70. **Thiemeyer Th.** (1964). *Grenzkostenpreise bei öffentlichen Unternehmen*. Köln, Opladen: Westdeutscher Verlag.
71. **Thiemeyer, Th.** (1975). *Wirtschaftslehre öffentlicher Betriebe*. Reinbek bei Hamburg: Rohwolt.
72. **Thiemeyer, Th.** (1978). *Apriorische versus empirisch-kasuistische Preistheorie*. Gesellschaft für öffentliche Wirtschaft und Gemeinwirtschaft (Ed.). *Kosten und Preise öffentlicher Unternehmen*. Berlin, 36–57: Allgemeine Verlagsgesellschaft.
73. **Thiemeyer, Th.** (1990). *Instrumentalfunktion öffentlicher Unternehmen*. Schriftenreihe der Gesellschaft für öffentliche Wirtschaft, Baden Baden: Nomos.
74. **Thiemeyer, Th., Cox, H.** (Eds.) (1990). *Instrumentalfunktion öffentlicher Unternehmen*. Baden-Baden: Nomos
75. **Thiemeyer, Th., Chmielewicz, K., Eichhorn P.** (1983). *Instrumentalfunktion öffentlicher Unternehmen*. *Handbuch der öffentlichen Betriebswirtschaft*, Stuttgart, 672-683: Schaeffer – Poeschel.
76. **Van Long, N., Stähler, F.** (2009). *Trade Policy and Mixed Enterprises*. *The Canadian Journal of Economics*, 42, 590-614.

77. **Wang, L. F. S., Wang, J., Tang, L., Yen, Y.** (2011). Tariffs Ranking in Mixed Oligopoly with Revenue Constraints. *Economic Research International*, 2011, 1-6.
78. **Weiser, G.** (1960). Die Morphologie der Betriebe. *Handbuch der öffentlichen Betriebswirtschaft*, Vol. 3, Stuttgart, Sp 4037: Poeschel.
79. **World Bank** (2016). Defining a Small Economy. Washington: web.worldbank.org/Website/External_projects/o_contentMDK:2152464-pagePK:41367~piPK:51533~theSitePK:40941,00. last access 25.7. 2016.
80. **Ziemes, G.** (1992). Politik-ökonomische Betrachtungen öffentlicher Unternehmen. P. Friedrich (Ed.), *Beiträge zur Theorie öffentlicher Unternehmen*. *Zeitschrift für öffentliche und gemeinwirtschaftliche Unternehmen*, Beiheft 14, 56-82.

ESTNISCHE ÖFFENTLICHE UNTERNEHMEN ALS INSTRUMENTE DER AUßENWIRTSCHAFTSPOLITIK¹

Peter Friedrich, Jaan Looga²
Universität Tartu

1. Problem

Obwohl der Einsatz öffentlicher Unternehmen als Instrumente der Außenwirtschaftspolitik gegenwärtig wenig Interesse findet, erlangen übernationale öffentliche Unternehmen mit ihren grenzübergreifenden Aktivitäten erhöhte außenwirtschaftliche Bedeutung. Davon sind insbesondere kleine Länder betroffen.

Im Zuge der europäischen Integration werden ausländische öffentliche Unternehmen vermehrt zu Konkurrenten inländischer öffentlicher Unternehmen und inländische öffentliche Unternehmen versuchen, Märkte im Ausland zu erschließen. Integrationsbedingt verlieren kleine Mitgliedsländer der Europäischen Union etliche außenwirtschaftliche Aktionsparameter. Dies betrifft die Zollpolitik, die Währungspolitik, die Geldpolitik, die Kapitalmarktpolitik, die Bankpolitik, die Wettbewerbspolitik, die Umweltpolitik und einige Sektorpolitiken wie die Agrarpolitik, die Verkehrspolitik.

Gemäß der Weltbankdefinition für kleine Länder besitzen sie – wie Estland – weniger als 1.5 Millionen Einwohner. Ferner sinkt die Bevölkerung Estlands. Sollten öffentliche Unternehmen auch außenwirtschaftlich eingesetzt werden, um dem Schrumpfungsprozess entgegen zu treten? Deshalb behandeln die Autoren folgende Fragestellungen:

- (1) Gibt es umfangreiche Aktivitäten öffentlicher Unternehmen in Estland?
- (2) Berücksichtigt die Theorie der öffentlichen Unternehmen die Rolle öffentlicher Unternehmen als außenwirtschaftliches Instrument?
- (3) Steigt das Wohlergehen eines kleinen Landes, wenn die dortigen öffentlichen Unternehmen sich verstärkt der Produktion international gehandelter und binnenwirtschaftlicher Güter zuwenden?
- (4) Geschieht dies auch bei sinkender Bevölkerung und falls die öffentlichen Unternehmen „ineffizient“ produzieren?

¹ Den vollständigen Text des Artikels "Public Enterprises in Estonia as Instruments of Foreign Trade Policy" findet der Leser auf der beigefügten CD.

² Peter Friedrich, Prof. Dr. Dr. h.c. (em.), University of Tartu, School of Economics and Business Administration, Narva Rd. 4, 51009 Tartu, Tel. +372/7376350; peter.friedrich@ut.ee
Jaan Looga, MA, PhD Student, University of Tartu, School of Economics and Business Administration, Narva Rd. 4, 51009 Tartu; jaan.looga@ut.ee

2. Entwicklung, Probleme und die Einbindung estnischer öffentlicher Unternehmen in den Außenhandel

Nach der Wiedererrichtung der Republik Estland wurden sozialistische Betriebe zügig umgewandelt, kommerzialisiert, geschlossen, privatisiert oder als öffentliche Unternehmen weitergeführt. Ferner wurden neue – auch öffentliche Unternehmen – gegründet. Öffentliche Unternehmen gehören dem Zentralstaat oder den Gemeinden. Sie umfassen etwa 23% des öffentlichen Vermögens und ihr Anteil an den Beschäftigten des öffentlichen Sektors weist einen ähnlichen Umfang wie in anderen westlichen Ländern auf. Ihre Anzahl ist im Verhältnis zu jener der privaten Unternehmen klein. Die Transformation öffentlicher Unternehmen ist weit fortgeschritten, aber man ringt immer noch um geeignete rechtliche Formen, um Managementformen, die Bestimmung ihrer Funktionen und Ziele und ihres Verhaltens auf Märkten.

Die meisten zentralstaatlichen Unternehmen sind als Aktiengesellschaften oder Gesellschaften mit beschränkter Haftung aktiv. Unternehmen des öffentlichen Rechts existieren bis auf eine Ausnahme nicht. Sie sind vor allem in den Sektoren: Elektrizitätsversorgung, Gasversorgung, Dampf- und Fernwärmebereitstellung sowie im Bereich von Forschung tätig. Bedeutungsvoll ist auch ihr Engagement im Transport- und Lagerwesen und in der Informationswirtschaft sowie in der Telekommunikation. Zentralstaatliche Unternehmen widmen sich auch der Industrie, dem Finanzwesen und der Immobilienwirtschaft. Allerdings gibt es recht selbständige, Agenturen und Institutionen des Zentralstaates, z.B. Universitäten, die unternehmensähnliche Formen und Aktivitäten aufweisen.

Kommunale Unternehmen dienen der Wasserversorgung und Abwasserwertung, der Abfallwirtschaft und dem Recycling. Sie sind ebenfalls in der Strom-, Gas- und Fernwärmeversorgung sowie sozialer Dienste und der Immobilienwirtschaft aktiv. Auch bei den Gemeinden existieren etliche Organisationen, die unternehmensähnliche Managementspielräume aufweisen.

Die Zahl der zentralstaatlichen und kommunalen Unternehmen nahm zunächst ab nun aber wieder zu. Für den gesamten öffentlichen Sektor werden in unterschiedlichen Statistiken zwischen 2600 und 2950 dieser öffentlichen Institutionen einschließlich der öffentlichen Unternehmen angegeben. Öffentliche Unternehmen produzieren kapitalintensiver, ihre Kapitalausstattung und Gewinne sind in den letzten 15 Jahren gestiegen.

Manche Probleme öffentlicher Unternehmen resultierten aus den Transformationsbedingungen, etwa bei der Fernwärmeversorgung, Wasserversorgung, der Energiewirtschaft, im Wohnungswesen, im Bereich der Telekommunikation, bei der Eisenbahn. Die Schwierigkeiten sind teilweise technisch bedingt, z.B. Spurweiten, Energietechnik, Fernwärmetechnik, veraltete Produktionstechniken, ungeeignete Kapazitätsauslegungen. Sie waren auch infolge umfangreicher Diebstähle aufgetreten. Hohe Kosten bewirkten kostentreibende Verhandlungsweisen, Investitionsblockaden, zu vieler Manager und deren Qualität, Korruption, und der zu geringe

Einsatz ausländischer Manager. Vermögenszuweisungsprobleme existierten und die Lohnfindung war für öffentliche Unternehmen inflexibler als im Privatsektor. Ihre Führungsaktivitäten waren zu wenig an öffentlichen Zielen orientiert. Die Importpreise für Vorprodukte waren hoch, die eigene estnische Währung war schwach und die Kaufkraft der inländischen Kunden gering. Die europäische Integration verlangte viele Anpassungen.

Inzwischen haben sich viele Probleme entschärft. Die institutionellen Bedingungen haben sich infolge gesetzgeberischer Aktivitäten geklärt. Allerdings fehlen immer noch spezielle öffentlich rechtliche Unternehmensformen für zentral staatliche und kommunale Unternehmen. Gegenwärtig werden Führungsprobleme öffentlicher Unternehmen diskutiert. Der Realisierung einer Führungskonzeption – management by objectives – mittels des Engagements von Aufsichtsräten und der Beschränkung der Vorstandsaufgaben auf die laufende Geschäftsführung stehen Planungsschwierigkeiten, die mangelnde Einbindung von Parlamenten, Regierungen und Aufsichtsratsmitgliedern und die Notwendigkeit flexibler Geschäftsführung und investiver Anpassung der Unternehmen an Marktentwicklungen entgegen. Es besteht auch in Estland die Gefahr, dass öffentliche Unternehmen zur Lösung von Haushaltsschwierigkeiten ihrer Träger herangezogen werden.

Da die öffentlichen Ziele öffentlicher Unternehmen in geringem Maße expliziert werden, sind auch ihre außenwirtschaftlichen Ziele nicht sehr gegenwärtig. Eine Ausnahme bildet die Notenbank, die an der europäischen Geld- und Währungspolitik mitwirkt, und die Estland verbliebenen Devisenreserven bewirtschaftet. Andere öffentliche Unternehmen sind in Export- und Importaktivitäten einbezogen, z.B. im Forstwesen, die Eisenbahnen, Häfen, Gefängnisse, die estnische Post, sowie Infrastrukturunternehmen des Transports. Der Anteil, der Exporte an den Unternehmensumsätzen beträgt bei zentralstaatlichen Unternehmen durchschnittlich 16% und bei kommunaler Unternehmen 2%. Allerdings gibt es viele öffentliche Institutionen, die wie öffentliche Unternehmen agierend Leistungen an Touristen, auswärtige Studenten und Wissenschaftler, und an Ausländer abgeben, die aber statistisch nicht als Exporte ausgewiesen werden. Die Marktmacht estnischer öffentlicher Unternehmen auf ausländischen Märkten ist recht begrenzt, allerdings spielen sie für die außenwirtschaftlichen Beziehungen durchaus eine Rolle.

3. Die Ziele öffentlicher Unternehmen

Offiziell sollen öffentliche Unternehmen gemäß dem estnischen Staatsvermögensgesetz dem öffentlichen Interesse dienen, das sich in einer Erhöhung des Einkommens, der Verhinderung des Missbrauchs von Monopolmacht und der Bereitstellung öffentlich produzierter Güter und Dienstleistungen manifestiert. Damit werden auch die verschiedenen Aufgaben angesprochen, die ihnen in der Lehre von den öffentlichen Unternehmen zugewiesen werden. Ihr Beitrag zur individuellen Wohlfahrtsmaximierung ist betroffen, der in der angelsächsischen wirtschaftstheoretischen Literatur als wesentlich angesehen wird. Diese Betrachtungsweise spielt für die Führung öffentlicher Unternehmen Estlands eine untergeordnete Rolle.

Eine andersartig ausgerichtete Lehre öffentlicher Unternehmen, die vor allen Dingen in den zwanziger Jahren des vorigen Jahrhunderts in Deutschland Beachtung fand, betont die Rolle des öffentlichen Sektors und der öffentlichen Unternehmen zur langfristigen Existenzsicherung,- „Sustainability“ – einer Nationalökonomie. In einer dualen Wirtschaft sollen öffentliche Unternehmen im Rahmen der Infrastruktur-, Regional-, der Sozial- und Gesellschaft-, der Außenwirtschaftspolitik, usw. die Existenz der Volkswirtschaft absichern. Der Brückenschlag zwischen gesellschaftlicher Aufgabenstellung und der Fixierung entsprechender Unternehmensziele fehlt jedoch weitgehend.

Die europäisch kontinental vorherrschende Betrachtungsweise öffentlicher Unternehmen interpretiert öffentliche Unternehmen als Instrumente der Wirtschaftspolitik, die ihnen zugewiesene Ziele erfüllen sollen. Dazu können auch außenwirtschaftliche Ziele zählen. Insbesondere die Einbindung estnischer öffentlicher Unternehmen in Integrationsprozesse und EU-Finanzierungen, die Einbindung die europäische Währungspolitik, die Abhängigkeit der estnischen Wirtschaftsentwicklung von Entscheidungen ausländischer größerer Unternehmen, die Außenmarktstellungen estnischer öffentlicher Unternehmen als Mengenanpasser, und die Notwendigkeit estnische Schlüsselindustrien am Leben zu erhalten, legen die Verfolgung außenwirtschaftlicher Ziele mittels estnischer öffentlicher Unternehmen nahe. Dies führt zur Absicherung der Restautonomie der Notenbank, zum Aufkaufen von Firmen im Ausland, um in Märkte einzudringen oder den Zugang zu Innovationen zu eröffnen. Außenwirtschaftsbeziehungen lassen sich mittels öffentlicher Unternehmen längerfristig und weniger publik gestalten. Die Partizipation an ausländischen Kapitalmärkten, z. B über PPP, und grenzüberschreitende Investitionen können erleichtert werden. Öffentliche Unternehmen dienen dem Erwirtschaften von Gewinnen im In- und Ausland. Öffentliche Unternehmen vermögen zur Sicherung der einheimischen Umwelt und der inländischen Ressourcen beitragen. Regionale öffentliche Unternehmen unterstützen mit ihren Aktivitäten die Wirtschaftsförderung der Kommunen und Regionen.

Über geeignete Managementvorkehrungen sind Gefahren außenwirtschaftlicher Aktivitäten öffentlicher Unternehmen einzuschränken. Sie betreffen Zielkonflikte zwischen den Unternehmensinteresse im Sinne des Managements und außenwirtschaftlicher Notwendigkeiten, denn öffentliche Unternehmen gewinnen über ihr auswärtiges Engagement teilweise an Unabhängigkeit gegenüber ihren Trägern. Sie gehen auswärtige Investitionsrisiken ein oder verfolgen Steuervermeidungsstrategien. Die Auswärtssteuerung öffentlicher Unternehmen erhöht die Managementanforderungen an den Träger.

Andererseits mögen außenwirtschaftliche Ziele öffentlicher Träger mit jenen öffentlicher Unternehmen harmonieren, etwa bei der Öffnung des Zugangs zu Rohstoffmärkten, zu Innovationen, zu Personalmärkten, bei erweiterten internen Subventionsmöglichkeiten und erhöhten Unternehmenswachstums. Sie schaffen interne Aufstiegsmöglichkeiten für ihr Management. Der Einsatz direkter Außenhandelsinstrumente, z.b von Zöllen und Mengenregulierungen, Steuersatz-

variationen, dürfte unmittelbarer wirken, ist aber kleinen Ländern wie Estland nur in bescheidenem Umfang möglich.

4. Ein Modell zur Analyse der Wirkungen öffentlicher Unternehmen auf die öffentlichen Interessen eines kleinen Landes

Der Wirkungsanalyse liegt ein sehr vereinfachtes zwei Länder Modell mit einem kleinen Land und einem großen Land zugrunde. Im kleinen Land werden zwei Güter erzeugt, die international gehandelt werden. Dafür existieren Produktionsfunktionen, die die Abhängigkeit der Produktionen von den Arbeitseinsätzen aufzeigen. Der Produktionsfaktor Arbeit ist zwischen den Ländern immobil. Ferner herrscht eine Nachfrage nach den Produkten. Sie ist im kleinen Land von der Größe der zur Verfügung stehenden Arbeit sowie der in der Produktion tatsächlich eingesetzten Arbeit und der Außennachfrage abhängig, die sich an dem Verhältnis der Reallöhne in beiden Ländern ausrichtet. Es kann Unterbeschäftigung existieren. Die Unternehmen im kleinen Land dehnen ihre Produktion soweit aus bis der Reallohn dem Grenzprodukt gleicht. Im großen Land herrschen ähnliche Beziehungen. Das kleine Land passt sich mit seinen Preisen an jene im großen Land an. Allerdings können die Lohnsätze variieren. Es pendeln sich Gleichgewichtsbeziehungen zwischen den Reallöhnen ein. Das Modell kann um Faktorwanderungen, Investitionen und um einen Geld- und Kapitalmarkt sowie um nicht international gehandelte Güter erweitert werden.

Ferner wird angenommen, dass das kleine Land schrumpft, d.h. seine Bevölkerung wird kleiner. Das kleine Land definiert sein öffentliches Interesse in folgender Weise: Es möchte eine bedeutende internationale Güterproduktion erhalten, die Nachfrage nach internationalen Gütern befriedigen und es möchte Arbeitslosigkeit reduzieren. Die entsprechende Funktion für das öffentliche Interesse des kleinen schrumpfenden Landes knüpft an den genannten Größen an und fügt Bewertungsgewichte hinzu.

Wenn die Bevölkerung des kleinen Landes wächst, steigt die Erfüllung des öffentlichen Interesses über die größere Bevölkerung, Produktion und die Nachfrage. Allerdings wird dieser Effekt gebremst über erhöhte Arbeitslosigkeit. Das Ergebnis hängt von den gewählten Bewertungsparametern und den Parametern ab, die die Wirkungen bestimmen. Bei einer Bevölkerungsschrumpfung stellt sich das gegenteilige Ergebnis ein.

Die Wirkungen, die von der Existenz öffentlicher Unternehmen im kleinen Land ausgehen lassen sich wie folgt berücksichtigen. Öffentliche Unternehmen besitzen ein Management, das seinen Nutzen maximiert, der von den Ausbringungsmengen und der Beschäftigungsgröße abhängt. Außerdem sollen sie kostendeckend produzieren. Im Extrem maximiert das Management die Ausbringungsmenge (Typ II) oder den Gewinn (Typ V). Dann findet effiziente Produktion statt. Allerdings ist die Ausbringungsmenge bei Mengenmaximierung größer. Sobald das Management Arbeit und Beschäftigung maximiert (Typ I), die Beschäftigung allein maximiert, die Ausbringungsmenge negativ aber die Beschäftigung positiv bewertet (Typ IV)

oder den Gewinn zu Gunsten erhörter Beschäftigung einschränkt, liegt eine ineffiziente Produktion vor. Bei den Typen I, III, und VI entsteht ein Grenzprodukt das kleiner ist als bei Typ V und geht somit mit einer höheren Ausbringungsmenge einher. Der Ausbringungsrückgang infolge einer Bevölkerungsverkleinerung wird abgebremst und die Beschäftigungswirkung ebenfalls. Öffentliche Unternehmen vom Typ IV hingegen verstärken jedoch unerwünschte Effekte.

5. Ergebnisse

In Estland hat sich ein bedeutender Sektor öffentlicher Unternehmen des Zentralstaates und der Kommunen entwickelt. Sie sind hauptsächlich Infrastruktursektoren anzutreffen. Viele von ihnen werden als Aktiengesellschaft oder GmbH geführt. Es fehlen noch Rechtsformen des öffentlichen Rechts für öffentliche Unternehmen. Allerdings gibt es Institutionen im öffentlichen Sektor die ähnlich wie öffentliche Unternehmen geführt werden. Ihre Zahl ist beträchtlich. Während die aus den Transformationsbedingten Schwierigkeiten herrührenden Probleme teilweise gelöst sind und in ihrer Intensität abnehmen, werden Managementprobleme zurzeit intensiv diskutiert. Die öffentlichen Trägerinstanzen formulieren nicht die geeigneten öffentlichen Zielvorgaben, die Aufsichtsratsmitglieder können nicht genügend mitplanen und die Vorstände dürfen nicht nur auf die laufende Geschäftsführung beschränkt werden, falls die Erfüllung öffentlicher Ziele auch von der Investitionstätigkeit öffentlicher Unternehmen abhängt. Zahlreiche Argumente sprechen für den außenwirtschaftlichen Einsatz öffentlicher Unternehmen, falls die Instrumentalfunktion öffentlicher Unternehmen im Mittelpunkt der Analyse öffentlicher Unternehmen steht.

Öffentliche Unternehmen sind einbezogen in die außenwirtschaftlichen Aktivitäten Estlands in dem sie steuern, z.B. Zentralbank, oder mit Ihren Produktionsaktivitäten, z.B. Exporte den Außenhandel beeinflussen.

Mit Hilfe eines zwei-Länder Modells wird untersucht, ob in einem kleinen Land, dessen Bevölkerung schrumpft, z.B. Estland, der Einsatz öffentlicher Unternehmen im öffentlichen Interesse liegt. Das große Land, z.B. der Rest der EU, wird ebenfalls mit Hilfe eines simplen Gleichungssystems beschrieben. Es stellen sich gleichgewichtige Reallöhne ein, wobei von Faktorwanderungen abgesehen wird. Das öffentliche Interesse spiegelt sich in dem Wunsch wider, bestimmte für Estland international bedeutende Produktionen zu erhalten, die Nachfrage nach entsprechenden Gütern zu befriedigen und die Unterbeschäftigung zu vermindern.

Die Funktion, die dieses öffentliche Interesse zum Ausdruck bringt, erfährt generell eine Steigerung bei einer Erhöhung der Bevölkerung in Abhängigkeit von den angesetzten Bewertungsgewichten und der Modellparameter. Eine Bevölkerungsverminderung beeinflusst das öffentliche Interesse meist gegenteilig. Die Einführung öffentlicher Unternehmen zeigt, dass die negativen Wirkungen des Bevölkerungsrückganges öfters abgeschwächt werden. Dies hängt bis auf einen extremen Typus öffentlicher Unternehmen damit zusammen, dass die Aus-

bringungsmengen öffentlicher Unternehmen meist größer ausfallen als jene gewinnmaximierender Unternehmen.

Die Untersuchungen weisen darauf hin, dass es sinnvolle Einsatzmöglichkeiten öffentlicher Unternehmen für außenwirtschaftliche Zwecke auch in einem kleinen Lande gibt, öffentliche Unternehmen dort außenwirtschaftliche Bedeutung besitzen und von Ihnen Beiträge zur Verringerung eines Bevölkerungsschrumpfungsprozesses erwartet werden können.

Die vorgestellten Ansätze und Modelle müssen zukünftig, um die Einführung verschiedener Marktformen, der Berücksichtigung von Faktorwanderungen, Geld-, Kapitalmärkten und Faktormärkten sowie der verstärkten Einbindung öffentlicher Unternehmen erweitert werden.