PROBLEMS AND OPPORTUNITIES OF THE PUBLIC ORGANISATION OF PASSENGER TRANSPORT ON THE EXAMPLE OF BUS TRANSPORT IN ESTONIA

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Abstract

The purpose of the article is to show the need and opportunities for the public organisation of bus transport in Estonia. In order to achieve this goal, it is necessary to investigate Estonian and international experience in the organisation of passenger transport, its theoretical background and the resulting special measures. If we look at a specific transport service, the exclusion of the consumption thereof for a non-payer is no problem either in principle or technically. Here, public goods and market failure are not as much related to a specific transport service, but to the general availability thereof to the majority of the population. This is exactly the circumstance that the market may not necessarily guarantee. Here, the economic policy theory offers two solutions, which application in Estonian case are analysed in this article:

1) the cross-subsidisation of some lines at the expense of others, which, of course, presumes the prevention of the so-called price skimming with the establishment of regional monopolies and granting of special rights for them;
2) if cross-subsidisation cannot ensure a wide enough access to passenger transport, subsidisation must be added.

Keywords: Bus transport, transport policy, regulation public transport, county lines, commercial lines, market regulation, universal service, state subsidies to bus lines

JEL Classification: L43, L91, L98, R48, R51, H44, H76

Introduction

The main task of a transport system and especially public transport is to provide all people and companies with access to the sites necessary for their everyday activities. In Estonia, bus transport is the main type of public transport. The purpose of the article is to show the need and opportunities for the public organisation of bus transport in Estonia. In order to achieve this goal, it is necessary to investigate Estonian and international experience in the organisation of passenger transport, its theoretical background and the resulting special measures. Other types of passenger transport (taxis, trains, planes, ferries) are only cursorily touched upon as a background.

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An efficient transport system is an important prerequisite for economic and social development, on the one hand implying roads that are in good shape and comply with international standards, safe traffic management without traffic jams, fast and efficient means of transport, consumer-friendly organisation of public transport, a safe traffic environment and much more. On the other hand, the efficient operation of the economy presumes not only the fast development of the output of the transport sector, but also the optimisation of transport expenses on every level. This presents the national transport policy with complicated complex tasks. In the Transport Development Plan (Transpordi 2009), one of the goals of the Estonian transport policy is the reduction of development differences between economically stronger and weaker regions of the state, providing the latter with fast connections and access to the capital and to international attraction centres. As a Member State of the European Union, Estonia has a chance to use the funds of the Cohesion Fund and the European Regional Development Fund for the development of transport infrastructure. In a situation in which such different goals and interests intertwine in one economic sector, it is definitely exciting and topical to study the legal and organisational arrangement of this field. Both theoretically and practically.

Here, one does not have to start at an empty spot at all. Over the past years, the legislation regulating public transport has been constantly updated in Estonia. It has been done for two reasons: first, to consolidate the directives and regulations of the European Union and second, to regulate passenger transport more accurately. The importance of the topic is added to by the fact that compared to developed countries, public transport is used relatively much in Estonia. In Estonia, the proportion of public transport in passenger turnover is about 1/3, in the European Union, it is less than a quarter.

1. International experience in the organisation of passenger transport

For a long time, partial or full exceptions have been made to the transport sector in the common European competition policy, incl. at the granting of state aid. Passenger transport, especially the part that is treated as public universal service\(^2\), was out of competition for a very long time. The position was held that the granting of a monopoly status to companies providing public transport services is the only way to solve the “the problem of the use of chaotic and even destructive competition methods between companies providing public transport service” (Eekhoff 2004: 143).

Most of the discussions in the field of public transport concern the problems occurring in urban areas. These are, for example, traffic jams, access, economic welfare and pollution. More than 75% of the people of the European Union live in towns. About 28% of greenhouse gases is produced by transport, of which 84% is made up by land transport (Better... 2010). The internalisation of negative external effects is still waiting for a solution.

\(^2\) The term “universal service” is mainly used in the field of post and telecommunications, but basically, it is the basis for public interest in public transport as well.
The lines between towns can be operated with lower expenses per bus as the average speed is higher and main roads are used. In such a case, the cost per passenger kilometre is relatively low due to greater passenger load, so the expenses are likely to be covered from ticket revenue. In the past, such lines used to compensate for the less profitable trips. The local, to us, county lines, are, however, characterised by smaller passenger load and higher expenses due to lower speed on the lower type roads. In case of these, support from local governments or the state is needed (White 2009: 164).

The mission of public transport is to ensure everyone the right to move from one place to another. It is a part of the social and regional policy of the country. The function of public transport is to make it possible for people to have a high-quality life (A Market 2005). However, it must be admitted that it is not always possible. The people of rural areas and small towns and people with limited movement capacity are, of course, entitled to the same availability of services as the people living in towns. However, in rural areas, the cost of living is higher, which is almost always caused by the factors relating to transport (price of driving to town, price of bringing goods and services to consumers).

According to Jonathan Miller, the main topics of the European transport policy are security and competition in passenger transport. Next, we will focus mainly on the latter. In his article on the openness of markets, Miller notes that in such a case, a potential entrant to a market can do it simply without the efficient resistance from other members of the market, with no extra costs and risks. A market is open when entry thereto is free: there are no significant entry or exit expenses (when exiting the market, gets their investments fully back), the existing participants compete with newcomers on the same grounds (Miller 2004: 212).

The common transport policy of the European Union is one of the bases for the operation of the common market. Thus, in the transport sector, attention is also paid to the development of fair and efficient price formation concepts, the improvement of traffic safety and the promotion of railway and short-distance maritime transport. In the European Union Member States, between 1970-2000, the proportion of passenger cars has increased from 73.8% to 78.3%, but the proportion of public transport has dropped by 8.7% or from 24.6% to 15.9%. The relative decrease in the number of people using public transport is the result of extensive social and economic policy changes. The increasing use of cars has strengthened the political decision in favour of private vehicles, which has led to the increase in the pressure exerted on national budgets and the deficit financing of public transport (Miks... 2010).

3 In Central and Eastern Europe, most of the infrastructure investments are made into roads; however, in the EU Member States, a shift from the construction of motorways to the development of railway traffic has taken place in the past ten years. Newer cars and fuels of higher quality have not solved the problems as the increase of traffic volumes has reduced the improvement to zero.
In some countries, public transport is left for the market to regulate. The subsidies given by the European Union to the public transport of large cities amount to an average of 55% of the cost of the service. By cities, the proportion of subsidies varies greatly. For example, in Rome, it is 90%, but in Dublin, only 4% of all expenses. In the Estonian local passenger transport (bus, trolley-bus, streetcar), it is 52-56% (2009). At the same time, it must be noted that in Estonia, the subsidies do not cover the depreciation costs of the buses and the low ticket revenue caused by the socioeconomic situation does not allow to invest in the renovation of buses. This is the main reason why there are buses that are a couple of decades old driving on Estonian roads.

Public transport in Ireland, Denmark and Great Britain is exempt from value added tax and an entrepreneur gets the excise duty paid on fuels back. In Greece and Italy, the ordinary value added tax rate applies on public transport services. In Finland, Sweden, France, Austria, Germany, the Netherlands, Luxembourg, Spain and Belgium, the lowered value added tax rate is applied (Ühistranspordi... 2009). Denmark has an administrative structure, area of the state, existence of islands, etc., which are similar to Estonia, which is why the author has chosen Denmark for a closer comparison with Estonia with regard to the organisation of public transport.

In Denmark, bus transport is organised on the basis of the public transport companies in municipal ownership, who are also responsible for the organisation of public transport service. The provision of bus service has been assigned to private companies. Companies are working on the basis of the contracts signed with the companies organising public transport or directly with a municipal institution. In Denmark, the subsidies to public bus transport are given by counties or local administrations. There are generally no state subsidies. In the Copenhagen area, buses and the railway close to the city have a common tariff system.4 Deficit is covered from subsidies and divided between the regional municipalities of Copenhagen according to income tax. In other parts of the country, deficit is similarly made good by the counties and local administrations that participate in the purchase of bus services (Ühtekuuuluvusfondi... 2009).

In Denmark, independent companies who organise public transport also decide upon the price of tickets for retired people as they are given no state aid. In some regions, retired people can use the so-called pensioner card the price of which is 15% of the cost of full card, but is only valid outside rush hours. The rate of supports in Denmark varies by regions from 8% to 55% of the total cost of public transport. In some counties, the subsidies have been rather stable for years. Generally, the regional bus service requires less support than the local service as the passenger load of regional buses is relatively high.

4 The largest railway company in Denmark is the national DSB. Passenger transport on railway and by buses is also organised by the British company Arriva.
The official position of the International Association of Public Transport (UITP)\(^5\) is that public transport needs to be adequately funded. But there are many potential funding sources. Central governments, regional governments and local governments can all participate in the funding of public transport. Every state has its specific subsidies and funds. In practice, the funding of public transport may mean the co-existence of several mechanisms (Ühistranspordi finantseerimisest 2010).

A well organised, incl. well funded public transport sector allows attracting investors. Similarly to every other type of public service, the availability of state funds depends on other competing sectors. As the resources are limited, alternative funds and innovative mechanisms must be sought, which would reconcile the risks of private investors and the need for guarantees, which proceed from the nature of public transport projects (Mezghani 2007). Just like driving a car, public transport is also for pay and the price shapes the behaviour of the people travelling and affects the choice of transport. Phil Goodwin, Professor Emeritus of London University College, is of the opinion that car transport could be decreased by 20-30% and the use of public transport increased accordingly only with the help of a political decision. (Mezghani 2010)

The funding of the public transport activity mainly comprises three components: ticket revenue, compensations received from other commercial sources, and additional subsidies. The operating costs of public transport cannot be covered with the share received from ticket revenue only as the revenue from the sale of tickets varies according to the situation. The costs of transport companies may also vary. Thus, there are great differences in the forms and needs of public funding. The state and local institutions allow the funding of public transport on economic, social and environmental considerations (The financing... 2003).

2. Structure and development of passenger transport in Estonia

Before discussing the organisational issues of bus transport in Estonia, we shall study the objective development of the sector. In Estonia, bus transport is the main type of public transport. Tallinn and its immediate surroundings are the only region where streetcars, trolley-buses and electric trains are used in addition to buses.

As the equipment of public transport in Estonia is old, it impairs the quality of the service, which is why passengers prefer private vehicles instead of the worn-out and uncomfortable public service vehicles. The maintenance costs of the bus lines in towns and counties have increased by 64.9% over the past nine years. The rise in the prices of transport is caused by the higher cost of fuel and the replacement of outdated buses.

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\(^5\) The International Association of Public Transport (UITP) has more than 3,100 members from more than 90 countries all over the world. Tallinn Bus Company has been a member of the organisation since 1993. (Public transport... 2010).
From 1990 to 2007, the number of people using public transport in Estonia has been constantly decreasing. If in 1990, the services of different types of public transport in Estonia were used by 432 million passengers, then in 2007, the estimated number of trips with public transport was 202.7 million. In 2007, the number of passengers dropped by 2% compared to the previous year, which means that in 2007, the services of transportation companies were used by 214.2 million passengers (Pukk 2009).

In Estonia as a whole, 2/3 of the public transport trips are made by bus, about 30% by the electric transport in the city and only 2% by train. In towns, the proportion of public transport is 30–40% of the total number of trips. Outside town borders, the number of kilometres travelled by private vehicles exceeds the public transport indicator twofold (Eesti... 2005). The small proportion of railway transport is caused by the constraint of the infrastructure. Passenger transport by types of transport in 1992-2006 is described in Table 1.

Table 1. Passenger transport by types of transport in 1992-2006 (million passengers)

<table>
<thead>
<tr>
<th>Year</th>
<th>Road transport (buses)</th>
<th>Railway transport</th>
<th>Maritime transport</th>
<th>Air transport</th>
<th>Streetcar and trolley-bus transport</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>344.7</td>
<td>15.8</td>
<td>2.1</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>1993</td>
<td>281.6</td>
<td>16.7</td>
<td>2.6</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>212.8</td>
<td>11.6</td>
<td>2.8</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>191</td>
<td>8.8</td>
<td>3.0</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>187.7</td>
<td>6.7</td>
<td>3.0</td>
<td>0.2</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>193</td>
<td>5.6</td>
<td>3.3</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>173.7</td>
<td>6.7</td>
<td>4.0</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>170.4</td>
<td>6.8</td>
<td>4.7</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>187.8</td>
<td>7.3</td>
<td>4.8</td>
<td>0.3</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>171.7</td>
<td>5.5</td>
<td>4.5</td>
<td>0.4</td>
<td>67.2</td>
</tr>
<tr>
<td>2002</td>
<td>171.1</td>
<td>5.2</td>
<td>4.8</td>
<td>0.4</td>
<td>70.8</td>
</tr>
<tr>
<td>2003</td>
<td>162.8</td>
<td>5.1</td>
<td>4.6</td>
<td>0.6</td>
<td>71.5</td>
</tr>
<tr>
<td>2004</td>
<td>149.5</td>
<td>5.3</td>
<td>5.4</td>
<td>1.5</td>
<td>63.7</td>
</tr>
<tr>
<td>2005</td>
<td>139.8</td>
<td>5.1</td>
<td>5.5</td>
<td>1.5</td>
<td>57.6</td>
</tr>
<tr>
<td>2006</td>
<td>141.6</td>
<td>5.3</td>
<td>5.8</td>
<td>1.5</td>
<td>57.6</td>
</tr>
</tbody>
</table>


Passenger transport by bus in Estonia is divided into several branches according to the nature of transport and funding principles. According to the nature of transport, bus transport is divided into occasional services and regular services (Sõitjate... 2009). Occasional services are transport of a group of passengers formed on the
initiative of an ordering party or carrier for the sake of a common goal, which is executed as a single order or on the basis of a contract between the ordering party and the carrier. Regular services are regular passenger transport organised on a fixed route and according to a time-schedule, where passengers can enter and exit the vehicle in the stops determined in the timetable. A carrier must have a line permit for arranging regular services. Regular services are divided into rural municipality lines, urban lines, county lines, long-distance lines and international lines (Ühistransportseadus 2007). Local regular services means the carriage of passengers by road traffic on rural municipality, urban or county lines the route and the starting and terminal points of which are located within the administrative territory of the same rural municipality, city or county. The service is provided in the amount and on the conditions ordered by the state or local government. Public service lines are serviced according to the timetable determined by the ordering party regardless of the number of passengers (Volt 2006). Long-distance regular services means the carriage of passengers by road traffic on lines the routes of which are located in different counties. International carriage of passengers means the carriage of passengers on a route which crosses state borders.

From 2000 to 2007, the number of passengers on county lines decreased by a moderate 2.5 million or by 10%. In 2008, county lines were used by a total of 20.9 million people. Compared to 2007, the number of passengers decreased by 5% (Pukk 2010). A serious downwards trend began in the first quarter of 2008 and lasted at least until the end of 2009.

On the long-distance bus lines, the number of passengers increased until 2002, when there were about a million or 16% more passengers than in the year 2000. In 2003, the number of passengers remained about the same as the year before, but after that, this field witnessed a new drop and by the end of 2005, the number of passengers had decreased by about 10% compared to the years 2002 and 2003. In 2008, the number of passengers on long-distance lines decreased by another 16% compared to the year before. However, the year 2009 brought along a new and noticeable rise. The passenger turnover of bus transport in 2008 was 2.4 billion passenger kilometres or 8% less than in 2007. (Pukk 2010)

6 In the third quarter of 2009, there were only 3.9 million passengers on county lines, which is as much as 23.7 per cent less than at the same time in 2008.
In 2005, there were 45 carriers on county lines; a year later, 43. The number of them by counties and performance indicators (Tables 2 and 3) differed significantly. If, for example, in Ida-Viru County, in 2005-2006, there were 10 different carriers servicing the lines and 9 in Lääne-Viru County, then only one in Hiiu and Tartu counties (Maakonnaliinide … 2007: 15). Table 2 show that state subsidy exceeded ticket revenue by 21% and made up 48.5% of the total cost of transport operations.7

Table 2. Total data of county lines (9 months of 2006)

<table>
<thead>
<tr>
<th>Years</th>
<th>Unit</th>
<th>9 months of 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance travelled on route</td>
<td>Mln km</td>
<td>24.7</td>
</tr>
<tr>
<td>Line time</td>
<td>Thou. hours</td>
<td>818.8</td>
</tr>
<tr>
<td>State subsidy</td>
<td>Mln EEK</td>
<td>126.5</td>
</tr>
<tr>
<td>Ticket revenue</td>
<td>Mln EEK</td>
<td>104.5</td>
</tr>
<tr>
<td>Cost</td>
<td>Mln EEK</td>
<td>261.0</td>
</tr>
<tr>
<td>Number of passengers</td>
<td>Mln</td>
<td>18.9</td>
</tr>
<tr>
<td>Passenger turnover</td>
<td>Mln passenger km</td>
<td>227.8</td>
</tr>
</tbody>
</table>

Source: Ministry of Economic Affairs and Communications.

Table 3 shows that by attendants, the indicators of the number of passengers and average trip length vary the most8, which is the main reason for the fluctuations in ticket revenue. As the variation coefficient of the latter is still smaller than the

7 In addition to state subsidy and ticket revenue, 11.5% of the funds were received from local budgets and other sources.

8 According to the Ministry of Economic Affairs and Communications, the average trip length was 12 km.
previous ones, it shows that the number of passengers and the length of the trip are in negative correlation.

Table 3. Performance indicators of county lines in 2005-2006

<table>
<thead>
<tr>
<th></th>
<th>Maximum</th>
<th>Minimum</th>
<th>Average</th>
<th>Variation coefficient (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance travelled on route</td>
<td>2638</td>
<td>10</td>
<td>541</td>
<td>-</td>
</tr>
<tr>
<td>(contractual volume) (thou. km)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic speed (km/h)</td>
<td>43.0</td>
<td>11.2</td>
<td>28.7</td>
<td>29.6</td>
</tr>
<tr>
<td>State subsidy (EEK/line km)</td>
<td>9.18</td>
<td>2.52</td>
<td>5.43</td>
<td>24.3</td>
</tr>
<tr>
<td>Ticket revenue (EEK/line km)</td>
<td>9.30</td>
<td>1.35</td>
<td>3.90</td>
<td>50.3</td>
</tr>
<tr>
<td>Number of passengers (distance</td>
<td>1.57</td>
<td>0.19</td>
<td>0.78</td>
<td>62.8</td>
</tr>
<tr>
<td>travelled on route per km)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average travel distance (km)</td>
<td>20.07</td>
<td>1.93</td>
<td>9.20</td>
<td>55.1</td>
</tr>
</tbody>
</table>

Source: Maakonnaliinide … 2007, calculations of authors.

One of the factors in the development of passenger transport is also the condition of infrastructure (roads and streets for bus transport). A significant fact is that local administrations own the road and street networks and repair and maintain these according to their income base. Investment decisions with regard to the local infrastructure are made on the local administration level. In rural areas, the maintenance of infrastructure is relatively costly, considering the large amount of users. The funds provided for the maintenance and development of the road network are used for preserving the current condition of the infrastructure, not for qualitative development. Sections of state roads also run on local administration territories and it is important that the country participate in the development and maintenance of these sections (Transpordi... 2009). In the period 2007-2013, the European Cohesion Fund and Regional Development Fund support the Estonian transport sector with 9.8 billion kroons. 2009. As of August 2009, decisions on satisfying the applications for domestic subsidy have already been made about 14 transport infrastructure development projects.

3. Theoretical bases for the organisation of passenger transport

The general basis for economic policy in market economy is the treatment of competition as an instrument for the maximisation of macroeconomic welfare. Of course, it is not always easy to ensure the operation of all competition functions. Market can be affected by various forces that hinder the efficient operation of the competition mechanism and make it impossible to achieve active competition. Such
forces are market failures that are systematically described by Jüri Sepp in the first article of the present collection.

The effects operating in bus transport are also more complex than on the so-called ordinary markets, where supply and demand for accurately defined private products meet. On the bus transport market, public interests also emerge in addition to private interests. Public goods are also produced in addition to private goods. As infrastructure is expensive and bus transport must be available for a wide public, government measures and a public law transport policy are needed (A Market 2005). Government interventions are frequent. The measures needed for the development of transport are guaranteed with laws, decisions of the Riigikogu, regulations of the government of the republic, transnational agreements for carriage by vehicles and international conventions and agreements that Estonia has joined, as well as any other legislation that has been taken into account when preparing a plan for a county.

The main task of public transport is the establishment of travelling opportunities for satisfying people’s need to move, but also the decrease of the traffic burden of roads and streets. With the wealth of the society increasing, the number of cars was also increasing fast and public transport became less popular. In areas with sparse population, the cost price of public transport is inevitably high, bringing about the need to use infrequent timetables in rural areas. The solvency of people does not allow to raise ticket prices and the restrictedness of the budgetary funds of the state and local administrations has not allowed to take public transport subsidies to such a level that public service vehicles could be compared with private vehicles for their frequency, speed and comfort (Transpordi... 2009).

In order to achieve social efficiency, passenger transport cannot be left only to the power of market regulation, but must be intervened administratively. This because public transport partially means the provision of public or common goods (Villemi 1996: 15). However, this common position needs further clarification. Public goods are goods characterised by two main features: non-rivalry and non-exclusion in consumption. Because of the first feature, it is not wise to sell these separately to private persons as consumption by one person does not decrease the amount left for others to consume (Säästva 2010). The main characteristic of public goods is still the non-exclusion of the consumption thereof, which is why no market price and accordingly also a private offer is formed on the market.

But if we look at a specific transport service, the exclusion of the consumption thereof for a non-payer is no problem either in principle or technically. Here, public goods and market failure are not as much related to a specific transport service, but to the general availability thereof to the majority of the population. This is exactly the circumstance that the market may not necessarily guarantee. Here, the situation is similar to the universal service, which is mainly talked about in relation to postal and telecommunications services.9

9 The EU Universal Services Directive (2002) defines universal service as the provision of a defined minimum set of services to all end-users at an affordable price. The Estonian
Levy (2009) recommends the adoption of the universal service concept into public transport as well. For him, universal service is a service with fixed quality and reasonable price, which is aimed at all users of transport services regardless of their geographic location. At the implementation of universal service, the target values of services and the funding thereof must be enforced. Basically, Eurostat states the same: universal service is a legal obligation to provide basic level service in each resident country. It is mainly used at the provision of important services in regulated industrial sectors (postal, telecommunications, public transport services, etc.).

A free market that is viewed as an alternative can here lead to a significant price differentiation and the understocking of certain market segments. It is understandable that the lines that join major centres will not have a shortage of supply and the price will also be relatively low in free competition. On the other hand, the provision of transport services on borderlands presumes, due to limited demand and additional expenses, higher prices that may turn out to be too expensive for consumers and cause the fading out of the market.

Here, the economic policy theory offers two solutions:
1) the cross-subsidisation of some lines at the expense of others, which, of course, presumes the prevention of the so-called nitpicking and price skimming with the establishment of regional monopolies and granting of special rights for them;
2) if cross-subsidisation cannot ensure a wide enough access to passenger transport, subsidisation must be added.10

If usually, at the granting of special rights, the organisation of an auction for assembling monopolistic profit ex ante to the hands of the community together with the later use thereof for the protection of risk groups, for example, is talked about, then in case of passenger transport, underbidding is more commonly used. A competition finds out which bus company would be ready to confine itself to minimum subsidy at the servicing of the agreed route network. In both cases, competition on the market is replaced with competition for the market (Sepp 2004: 33).

A subsidy should ensure the efficient and sufficient provision of the service. Of course, the need for a subsidy depends on the relation between commercial lines and subsidised lines (proportion). The more there are commercial lines, the fewer there

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10 According to the EU Universal Services Directive (2002), to certain end-users, certain services can be presumed to be provided for the price that differs from the price corresponding to ordinary market conditions. Optimistically, it is still noted that the payment of compensation to the entrepreneurs who must provide said services in such conditions may not bring about the distortion of competition if only the specific net cost is compensated to them and the burden accompanying the net expenses is covered in a neutral manner from the viewpoint of competition.
are opportunities for cross-subsidisation in the framework of monopolistic public line sets and the more direct subsidies are needed.

In a region with smaller population concentration, the key issue is the provision of minimum movement opportunities for people by the aid of subsidies; in densely populated areas, it is important to ensure optimum capacity with the combination of different transport types, commercial lines and subsidised lines, which at the moment is unsatisfactory. Due to the incoordination of the lines operating and subsidised on commercial grounds and the inexpediency of some subsidised lines, the need to increase subsidies at the existence of a dense commercial line network has increased. The extensive opening of commercial lines can bring about a significant loss in ticket revenues on the lines serviced on the basis of a public service contract, which will bring about an increased need for subsidies.

4. Organisation of bus transport on public lines in Estonia

Public regular services are provided on the basis of a fixed-term public service contract signed between the carrier and a competent authority, which is a local or regional administration or any other public sector structural unit (for example, public transport centre). A county government of local government signs a contract with the carrier that made the best offer in the competition. Pursuant to the contract, the carrier shall be obliged to provide public service, for which a targeted subsidy is stipulated from the budget of state or local government. This part is also called a subsidy or a grant and the lines are accordingly called subsidised lines. The allocation of subsidies to public transport should generally proceed from the principle that everyone should have an equal opportunity to reach the institutions that are important in their everyday life (shops, schools, medical aid) and their work by using public transport services.

In order to assess the specific need for subsidies, it is necessary to analyse the proportion of subsidised lines in different regions according to the peculiarity of the region, and the purposefulness of the use of the subsidies. However, the lack of a common income and expenditure method does not allow to adequately assess the differences in the cost of a line kilometre by counties. The significant differences in the highest and lowest cost of a line kilometre and the reasons for this between counties (Table 4) raise the most questions. Here, we can rely on the analysis conducted by the National Audit Office (Kontrolliaruanne 2004).

According to Table 4, it can be presumed that the subsidy for a line kilometre is affected by various factors ranging from the small size of the county (Hiiu) to wealth (Harju). The former makes the fixed costs of bus transport rather expensive, whereas the latter increases the workload of the lines and the relative importance of ticket revenue. The general amount of subsidy is in turn clearly affected by the geographical size of the county.
### Table 4. State subsidies to bus lines in counties in 2003

<table>
<thead>
<tr>
<th>County</th>
<th>Subsidy (mln EEK)</th>
<th>Subsidy for line kilometre (EEK)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harju</td>
<td>17</td>
<td>2.43</td>
</tr>
<tr>
<td>Saare</td>
<td>6.7</td>
<td>3.01</td>
</tr>
<tr>
<td>Viljandi</td>
<td>8.5</td>
<td>3.13</td>
</tr>
<tr>
<td>Lääne-Viru</td>
<td>7.8</td>
<td>3.19</td>
</tr>
<tr>
<td>Jõgeva</td>
<td>3.9</td>
<td>3.23</td>
</tr>
<tr>
<td>average</td>
<td>8.9</td>
<td>3.3</td>
</tr>
<tr>
<td>Rapla</td>
<td>4.1</td>
<td>3.32</td>
</tr>
<tr>
<td>Tartu</td>
<td>17.7</td>
<td>3.32</td>
</tr>
<tr>
<td>Järva</td>
<td>5.4</td>
<td>3.43</td>
</tr>
<tr>
<td>Ida-Viru</td>
<td>16.5</td>
<td>3.59</td>
</tr>
<tr>
<td>Pärnu</td>
<td>16.3</td>
<td>3.59</td>
</tr>
<tr>
<td>Lääne</td>
<td>5.3</td>
<td>3.61</td>
</tr>
<tr>
<td>Valga</td>
<td>7.5</td>
<td>3.91</td>
</tr>
<tr>
<td>Põlva</td>
<td>6.0</td>
<td>4.12</td>
</tr>
<tr>
<td>Võru</td>
<td>8.3</td>
<td>4.13</td>
</tr>
<tr>
<td>Hiiu</td>
<td>2.7</td>
<td>4.68</td>
</tr>
</tbody>
</table>

Source: National Audit Office.

The differences, although smaller, become obvious in ticket prices as well. For example, in 2008, the price of a line kilometre in Lääne-Viru County for a trip of up to 20 kilometres was 87 cents and for a trip of more than 21 kilometres, 74 cents. In Põlva County, 70 cents and 60 cents, respectively. The public transport subsidy system as a whole is mainly based on the amounts used in previous years and does not take into account the development needs, which is why it is rather inefficient. In 2007, the country spent about 140 million kroons for subsidising bus lines, to which about 50 million kroons was added by local administrations.

Organisation of public transport is more elaborate in Tallinn and in Järva County, where the transport department of the town or the public transport centre orders the transport and also collects ticket revenue. A subsidy is added to the ticket revenue and the amount received is used for paying for transport services. 2004. The public transport centre established in 2004 in Järva County as a non-profit association has succeeded in providing the people with a favourable and economically efficient public transport system. In four years of operation, significantly more favourable prices were offered to carriers without raising the ticket price. The establishment of the public transport centre has prevented the county government and local administrations from ordering parallel and logistically uncoordinated lines and using the taxpayers' money impractically for keeping overlapping lines in operation (Sarapuu: 2009). County bus transport is now mainly aimed at the most optimum satisfaction of the passengers’ needs. The public transport centre systematically
investigates the movement needs of people and the demand for public transport and develops a coordinated and elaborate route network and the required infrastructure.

The Ministry of Economic Affairs and Communications of the Republic of Estonia has proposed a method for the allocation of county subsidies, the implementation of which has two stages. In the first stage, indicators are calculated for a specific period, on the basis of which subsidies are allocated. In the second stage, the dynamics component is added, where additional subsidy is associated with the indicators. (Lambing 2005). The Ministry of Economic Affairs and Communications emphasises that the indicators are not used for punishment – no money is taken away from the counties if these improve.

The new method for allocating subsidies to public transport proceeds from the principle that the passengers would have equal opportunities for reaching the institutions they need in everyday life and their work by using public transport services. Equal opportunities mean both financial availability considering the income of the people and the existence and proximity of a sufficient route network. The indicators used are: distance to bus stop, closest suitable shop, closest school, closest town or rural municipality government.

The total index consists of four components:
1. Availability of bus transport – Index \( PT_{availability} \)
2. Financial availability of bus transport – Index \( PT_{share\_of\_expenses\_in\_income} \)
3. Additional income component – Index \( gravel\_roads \)
4. Quality of bus transport – Index \( age\_of\_buses \)

1. The index will improve if:
   • the geographical availability of a line network improves (for example, new lines with new stops are added)
   • the satisfaction of transport need improves, for example, a larger line network (geographical aspect), a more frequent timetable (time aspect), more favourable price (financial aspect)

2. The index will improve if:
   • the proportion of bus transport expenses in income increases slower than the Estonian average (for example, due to keeping the ticket price stable)

3. The index will improve if:
   • infrastructure improves (quality of roads).

4. The index will improve if:
   • the age of buses decreases.

Total index = \( \alpha_1 \times \text{Index } PT_{availability} + \alpha_2 \times \text{Index } PT_{share\_of\_expenses\_in\_income} + \alpha_3 \times \text{Index } gravel\_roads + \alpha_4 \times \text{Index } age\_of\_buses \)
\( \alpha_i \) – proportion of indices in the average; at the moment, all are equal, \( \alpha_i = 1/4 \).

It can only be hoped that the new methods will really be adopted and the allocation of state subsidies will get an objective basis. This would help significantly save on political transaction costs, which in the past few years have become too noticeable.
and have led to legal proceedings with corruption charges due to the strategic behaviour of the parties involved, both entrepreneurs and county leaders.

**Summary**

The transport sector is one of the most important branches of economy in Estonia. A high quality transport system is a significant part of the living and business environment that corresponds to the current needs. The existence of a proper transport system promotes local entrepreneurship, but also the increase of the competitiveness of Estonian economy in general. However, the optimisation of the relation between various types of transport, incl. at passenger transport, has not been sufficiently dealt with yet. According to the Public Transport Act, it is the task of the ministry, county government and local government to plan the lines accordingly in the republic, county or on the local administration territory.

One of the goals of the development of public transport in Estonia is to turn bus transport into an attractive and sustainable alternative for passenger cars for satisfying the need of people to move. The main problems that have arisen are the issues related to the organisation of the local and county line organisation of public transport, which arise from the fact that the private sector does not provide the universal service of public transport (general availability) as it is a public good that cannot be excluded.

Here, the economic policy theory offers two solutions:
1) the cross-subsidisation of some lines at the expense of others, which, of course, presumes the prevention of the so-called nitpicking and price skimming with the establishment of regional monopolies and granting of special rights for them;
2) if cross-subsidisation cannot ensure a wide enough access to passenger transport, subsidisation must be added.

The hindrance to the development of the public transport sector (incl. bus transport) has been the lack of resources. According to the Public Transport Act, the state does cover, at the request of the local government, the deficit of the subsidies to public regular services on a county bus line wholly or partly from the state budget if the income base of the budget of the local government is not sufficient. Unfortunately, the funds of the public sector are limited and this is why the state has not been able to sufficiently invest in the improvement of the situation of public transport.

**References**


29. Ühistranspordi finantseerimisest.
30. Ühistranspordi politika – toetused ühistranspordile.
Transpordisüsteemi ja eriti ühistranspordi esmane ülesanne on tagada kõikidele inimestele ja ettevõttele juurdepääs nende igapäevategevuseks vajalikele objektidele. Eestis on põhiliseks ühistranspordi liigiks bussitransport. Artikli eesmärgiks ongi näidata just bussitranspordi riikliku korraldamise vajadust ja võimalusi Eestis. Selle eesmärgi saavutamiseks on vajalik uurida reisijateveo korralduse rahvusvahelisi kogemusi ja Eesti arenguid, majandusteoreetilisi iseärasusi ning siit tulenevaid erimeetmeid.


Avaliku transpordi missioon on kindlustada igatihele õigus liikumisele ühest punktist teise, suurendades sellega elukvaliteeti. See on riigi sotsiaalpoliitika ja regionaalpoliitika osa. Osaliselt on era ühistransport jaotatud turu reguleerida, mistõttu erinevad institutsionaalsed mehhanismid siin kombineeruvad. Euroopa Liidu suurte liikluse ühistranspordi toetused ulatuvad keskmiselt 55%-ni teenuse maksumusest. Linnade lõikes on toetuste osatähtsus suuresti varieeruv.


Bussitransport on Taanis korraldatud munitsipalomandis ühistranspordi ettevõtete baasil, kes vastutavad ka ühistransporditeenuse korraldamise eest. Bussiteenuse osutamine on antud üle erafirmadele. Firmad töötavad lepingute alusel, mis on

1 Universaalteenuse kui üldiselt ja soodsalt ligipääsetava teenuse mõjut teatatakse küll valdavalt posti ja telekommunikatsiooni valdkonnas, kuid siis on see avaliku huvi aluseks ka ühistranspordis.

Eestis on bussitransport peamiselt ühistransporti liikiks. Tallinn koos lähipoolistest piirkondadest on ainus piirkond, kus busside kõrval on kasutusel ka trammid, trollid ja elektrirongid. Eestis tehakse bussig transport 2/3, ühistranspordis 1/3 ühistransporditeenuse teenindus.


Majanduspoliitika üldiseks aluseks turumajanduses on konkurentsi käsitlemine vahendina rahvamajandusliku heaolu maksimeerimiseks. Loomulikult pole seda lihtne tagada kõigi hüviste jaoks. Turgu võivad mõjutada erinevad jõud, mis takistavad konkurentsimehhanismi efektiivset toimimist ja teevad tegusa konkurentsini jõudmise võimalikuks. Sel juhul räägitakse turutõrgetest.

Ka bussitranspordile toimub on keerukam kui nn. tavaturgudel, kus kohtuvad täpselt defineeritud eratoodete pakkumine ja nõudlus. Bussitranspordile turul ilmnevad lisaks eravõimedeta ka avalikud huvitajad. Seal toodetakse rahvusvahelise korralduse kaupade. Infrastruktuur on kõiki ja bussitransport peab olema kättesaadav laiadele rahvahulkadele, on vajalikud valitutse meetmed ja avalik-õiguslik
Transportpoliitika. See tõttu on sagedased valitsuse interventsioonid. Transporti arenguks vajalikud meetmed tagatakse seadustega, riikigoku otsustega, vabariigi valitsuse määrustega, riikidevaheliste autoveo kokkulepetega ja rahvusvaheliste konventsioonide ja kokkulepetega, millega Eesti on ühinenud ning muude õigusaktidega, mida on maakonna planeeringu koostamisel arvestatud.


Kui me vaatame konkreetset transporditeenust, siis selle tarbimise välistamine mittemaksajatele pole ei põhimmõtteliselt ega tehniliselt mingi eriline probleem. Avalik hüvis ja turutõrge pole siin seega seotud mitte niivõrd konkreetse sõiduteenusega, vaid selle üldise kätesaadavusega valdavale osale elanikkonnast. Just seda asjaolu kui hüvist ei pruugi turg ise tagada. Olukord on siin analoogiline universaalteenusega posti- ja telekommunikatsiooniteenuste turul.


Majanduspoliitika teooria pakub siin kaks lahendust:
1) ühtede liinide ristsubsidideerimine teiste arvel, mis eeldab muidugi nn rosina-nokkümise või koeririisumise tõkestamist piirkondlike monopolide loomise ja neile eriõiguste väljaandmisega;
2) kui ristsubsidideerimine ei suuda tagada piisavalt laia juurdepääsu reisijateveole (universaalteenuse „mahtu”), tuleb lisada selle doteerimine.

Kui taivaliselt räägitakse eriõigeste väljaandmisele enampakkumise rakendamisest monopoolse kasumiki seaduslikumeks ex ante ühiskonna kätte koos selle hilisema kasutamisega näiteks riskigruppide kaitseks, siis reisijateveo puhul on pigem levinud nn vähempakkumine. Konkurssig selgitatakse, misguse bussifirma oleks valmis piirduma kokkulepitav liinivõrgu teenindamisel miniimaalse dotatsiooniga. Mölemal juhul asendatakse siiski konkurents turul konkurentsiga turu pärast.

Dotatsioon peaks kindlustama teenuse efektiivse ja piisava pakkumise. Loomulikult sõltub dotatsiooni vajadus ka kommerts- ja toetatavate liinide vahekorrast (proportsioonist). Ei tohiks unustada, et mida rohkem kommertsliine, seda vähem
jääb võimalusi ristsubsideerimiseks monopoolsete avalike liinikomplektide raames ning seda enam on vaja otseiseid subsidiidume.

Väiksema asustuhihedusega piirkonnas on võtmeküsimus toetuste abil elanikele võimalusi ristsubsideerimiseks monopoolsete avalike liinikomplektide tagamine, tõedalt asustatud piirkonnas on vajalik tagada optimaalne veomaht erinevate transpordiliikide, kommertsliinide ja toetatavate liinide koostisega, mis praegusel hetkel on puudulik Kommertsalustel töötava ja toetatavate liinide koordineerimatususe ning seda enam on vaja otseseid subsiidiume.


Avalikku liinivedu teostatakse Eestis vedaja ja pädeva ametiasutuse, kelleks on kohaliku või piirkondliku omavalitsuse üksus või muu avaliku sektori struktuurijuht. Avaliku liinivedu teostamise eesmärk on kohaliku või piirkondliku omavalitsuse liinikilomeetrit tagada normaalse veomaht erinevate transpordiliikide, ja toetatavate liinide koostisega.

Dotatsioonide konkreetse vajaduse hindamiseks on vaja analüüsida toetatavate liinide rolli erinevates piirkondades sõltuvalt piirkonna eripärsustest ja toetuste kasutamise sihijärgustest. Paraku ei luba ühtse tulu- ja puudumine seni adekvaatset hinnata erisusi liinikilomeetri maksumuste osas maakondade lõikes. Küsimusi tekivad eelkõige sihipärast ja väiksema liinikilomeetri maksumuse määrata erinevate liinide liinikilomeetri jaoks.


Kokkuvõttes on enamuse ühistranspordiliikide korral siiski tähendatav taandareng. Probleemiks on nii erinevate omandite- ja organisatsioonivormide sobitamine üheks tervikus kui ka erinevate transpordiliikide vahekorra optimeerimine, sh reisijate-
veol. Eesti ühistranspordi arendamise üks seni saavutamata eesmärk on kujundada bussitranspordist atraktiivne ja jätkusuutlik alternatiiv sõiduautodele inimeste liikumisvajaduste rahuldamisel. See teema jääb aga antud artikli vaateväljast kõrval ja vajab spetsiaalseid uuringuid. Samas võib öelda, et ühistranspordisektori (sh. bussitranspordi) arengu üheks piduriks on olnud muidugi ressursside vähesus. Ühistranspordiseaduse kohaselt peaks riik küll omavalitsusüksuse taotlusel katma riigieelarvest maakonna bussiliinil avaliku liini veo teenuse maksumuse puudujääva osa kas täielikult või osaliselt, kui omavalitsusüksuse eelarve tulubaas ei ole piisav. Kahjuks on avaliku sektori vahendid piiratud ja seetõttu ei ole riigil olnud võimalik seni piisavalt investeerida ühistranspordi olukorra parandamisse, mis kõige üldisemalt kajastub reisijateveo mahtude vähenemises, aga ka kasutatava bussipargi vananemises.