

THE NECESSITY OF AN ADMINISTRATIVE-TERRITORIAL REFORM IN A COUNTRY: THE CASE OF ESTONIA

Janno Reiljan, Aivo Ülper
University of Tartu

Abstract

The goal of this paper is to analyze the theoretical, political and organizational bases of the territorial division of the country into municipalities as well as empirical data of Estonian municipalities and offer a research direction for identifying conceptual solutions to the development problems in Estonian municipalities. The analysis of the theoretical approaches to municipal size pointed out that they are fragmented and incompatible. Some authors support small municipalities, and others large. The theoretical reasoning of both those directions is often strongly simplified and biased and a unified metatheoretical approach has not been established. The empirical analysis revealed that there is no empirical evidence to confirm either the presence of significant size related advantages among municipalities or the existence of an optimal municipal size considering current municipal functions and financing. The lack of theoretical and empirical evidence on the necessity for administrative-territorial reform means that merging municipalities alone cannot significantly improve the public service delivery capacities and economic and democratic development of Estonian municipalities and that future studies should focus on analyzing public services from the perspective of their economic efficiency, quality and accessibility, and in doing so, determine the optimal size of regions for providing the various public services.

Keywords: optimal size of municipalities, local governments' financial potential, local political development, amalgamation, local government reform, local government efficiency

JEL Classification: H11, H70

1. Introduction

The disputes over the administrative-territorial organization (division) of Estonia have run into a dead end. The established municipal system is being criticized by almost everyone for different reasons and purposes. It seems that the solution to Estonian regional imbalances and problems in rural areas would be to increase the size of the municipalities. There are some political forces recommending these problems be resolved by the central government enacting radical reform resulting in large municipalities; that means nullifying a substantial aspect of the communities people live in using raw command force. A thorough analysis of the benefits and costs of such a reform has, however, not been published. Fortunately there has not yet been a majority in favour of that political decision. This article tries to show that it is more sensible to examine the causes of the administrative and services problems in municipalities and seek solutions by eliminating these causes.

Administrative reform can be associated with everything to do with reforming the public administration. Administrative-territorial reform, however, means changes to the public administration resulting from territorial changes (Teeväli 2009: 27). Administrative-territorial organization therefore represents the structural dimension of public administration, and must be compatible with the functional, organizational, decision-making and other dimensions of public administration (Kjellberg 1988: 8-13).

A solution to the different problems in the administrative system cannot therefore be achieved by changing only one dimension (e.g. the territorial division). Instead a coordinated reorganization of the various dimensions of the public administration is necessary. This paper focuses on the territorial organization of administrative issues, looking at the remaining administrative aspects only insofar as they relate to the territorial organization of public administration and services. By doing so, it is possible to analyze, how rational and effective it would be to focus solely on the territorial reform of public administration in Estonia.

The goal of this paper is to analyze the theoretical, political and organizational bases of the territorial division of the country into municipalities and offer a research direction for identifying conceptual solutions to the development problems in Estonian municipalities. We tackle the following research tasks to accomplish this goal:

- systematize theories concerning the territorial division of the country into municipalities and analyze the possibilities and limitations for their application;
- discuss administrative-territorial reforms in Nordic countries, their causes and consequences;
- describe the development, nature and indicators of the administrative-territorial division of Estonia;
- empirically analyze the relationship between municipal size and capability and development indicators.

The article consists of four parts. In the first part we investigate the theoretical bases of the administrative-territorial division of countries. In the second part we examine the experience of the Nordic countries in shaping their administrative-territorial division. The third part is devoted to problems associated with the administrative-territorial division of Estonia, highlighting indicators of municipal capability and development. In the fourth part we analyze empirically the relationship between the size of the Estonian municipalities and their capability and development indicators.

2. The theoretical foundations of a country's administrative-territorial division

There exist contradicting opinions about the optimal administrative-territorial division of a country, where some favour large municipalities and others small. There are four main arguments used by those who favour large municipalities (Relationship...2001: 6):

- large municipalities are economically more efficient;

- in large municipalities the political processes are more democratic;
- large municipalities have more possibilities for promoting economic development;
- large municipalities will provide a better and fairer distribution of services, tasks and tax burdens.

The most widely used statement is that economic efficiency is dependent on the size of the municipality. Large municipalities are thought to be more efficient because of alleged economies of scale and scope.

Economies of scale refer to the reduction of unit costs that occurs as a result of increasing the production volume. This occurs when the long-term marginal costs of production are smaller than the long-term average cost (Bailey 1999: 25). If economies of scale occur, larger municipalities are able to provide more public services at the same level of expenditures or reduce the level of expenditures while retaining the volume and quality of public services. Economies of scale occur when there are fixed costs (associated with providing a service), when an increase in supply will promote workforce specialization and better division of labour or when discounts or other reductions of costs can be achieved through buying in large quantities.

The merging of municipalities and the possible spatial centralization resulting from this also has a negative side, in particular the reversion of rural areas. Moreover, it is more than doubtful whether the theoretical positions of economies of scale can be used to predict the efficiency of public service provision in municipalities, because according to Bailey (1999: 27), public services are not very standardized, the outputs are not clearly identifiable and quantifiable and unit costs are not measurable with sufficient accuracy due to the high proportion of fixed costs.

Consequently, economies of scale can occur only in a few public services. For some public services a larger municipality may instead lead to unit cost growth or in other words diseconomies of scale (Dollery, Crase 2004: 269). Byrnes and Dollery (2002: 393) conducted a meta-analysis of various studies carried out in the United States and United Kingdom from 1951 to 2001 and found that 39 percent of the research papers showed no statistically reliable relationship between per capita expenditure and municipality size, and that diseconomies of scale characterized larger municipalities in 24 percent of the research papers.

Due to the diversity of public services, the economies of scale argument is not adequate to justify the merging of municipalities. To achieve economies of scale when providing a diversity of public services it is much more reasonable for municipalities to cooperate with each other in this field instead of merging (Friedrich, Reiljan 2010). In addition, services (or products) with the potential for economies of scale could be bought in from private companies or the rights to provide those services could be privatized. Alternative options (cooperation, buying-

in services and products and privatization) make economic efficiency as a justification for large municipalities even more dubious.

The possible presence of **economies of scope** is a second major argument in favour of the alleged economic efficiency of large municipalities. As Dollery and Crase (2004: 269) write: “Economies of scope, refer to the economic advantages that occur by providing a broad range of goods and services in a single organization, like a municipality. In particular, economies of scope arise when the cost of producing a given set of services in a single organization is lower than the cost of those services being produced by a number of specialized organizations”.

Dollery and Fleming (2006: 276-279) conclude that there are three main sources of scope economies: jointness in inputs – one input can be used in the production of more than one output and thus inputs could be fully exploited; jointness in outputs – more than one output is produced from the same set of inputs (typically a main product and one or more by-products); and interactions between service provision and goods production processes – outputs from one process are inputs into the second process.

The economies of scope argument for justifying the need for large municipalities is also one-sided. For example, the diversity of services might lead to their management becoming overly complicated resulting in a deterioration of management quality. The centralization of service delivery can also increase the cost of receiving the services (e.g. higher transport costs for residents); therefore, the costs to society as a whole could increase in large municipalities rather than decline.

The economic efficiency of municipalities is not the most important aspect in a country’s administrative-territorial division, and therefore, economies of scale and scope should not be overstated. It should be remembered that a municipality is not a business focused on economic efficiency, but a government agency that has to ensure public administration and the development of a democratic society. Total costs and cost-effectiveness can only be a topic for discussion when the presence of public administration and democratic development are guaranteed (Reiljan, Timpann 2001: 433). A similar view is stated by Sootla *et al.* (2008: 21), who found that achieving scale and scope economies in diffusely populated Estonian municipalities is problematic, and that mergers would make sense only if a qualitative change in governance and relations between the local authorities and citizens, as well as local authorities and central government authorities would be achieved.

Another argument in favour of large municipalities is that political processes are more democratic. Linking the development of democracy to larger municipalities might seem like a contradiction because usually small municipalities are thought to be more democratic than large (Aalbu *et al.* 2008: 34). Reiljan and Timpann (2001: 434) emphasize that to develop democracy, it is important that the lowest level of public administration is situated closest to the citizen. The optimal distance between the people and the lowest level of public power depends on the level of democratic thinking among citizens and on the length of their democratic experience. The less

people have an awareness and experience of democracy, the closer to the lowest level of public power they should be and the smaller the optimal size of a municipality should be. In Estonia, where the direct experience of participation in democratic processes is only twenty years old, municipalities should not be large, because the institutions of large municipalities are further from the people.

According to Sootla *et al.* (2008: 19), one vote from a citizen living in a large municipality counts relatively less in political decision processes than one vote from a citizen living in a small municipality. Therefore, increasing the size of municipalities decreases the influence of each vote and reduces each citizen's potential for influencing municipal decisions and their interest in participating in political processes. People living together in a certain area also tend to have common interests and a strong territorial identity, which is why they jointly select the representatives of the municipality (Aalbu *et al.* 2008: 35). It is feared that increasing the size of the municipality will result in people losing their territorial identity and their feeling of being involved in the decision-making, and therefore their interest in the activities of their municipality.

However, pairing greater awareness of democracy with small municipalities also has its problems. First of all, the suppression of political debate and dissidents is more effective in smaller municipalities, because it can be justified in terms of social and community-based unity (Newton 1982: 203; Sootla *et al.* 2008: 19; Relationship ...2001: 14). The suppression of dissent and the resulting stifling of ones opinions may occur especially in municipalities where political leaders are also economic leaders (i.e. the largest employers). In this situation a political difference of opinion may lead to a direct economic threat (e.g. job loss). In larger municipalities political and social structures are generally more diverse, and thus, the opposition has a greater chance to express their ideas more freely and safely. According to Sootla *et al.* (2008: 18), larger municipalities in Estonia may increase the diversity of political parties and reduce regional particularism. Larger municipalities may also have more citizens associations and community groups (Newton 1982: 200), which are often an indirect means of expressing personal opinions and getting involved in the community. Another reason why smaller municipalities could have lower citizen participation is the limited scope of activities they are able to pursue. According to Netwon (1982: 202), the less a municipality is able to do, the less its citizens will bother themselves about its affairs.

The third major justification for large municipalities emphasizes that larger municipalities have more opportunities to support economic development on their territories through larger investments and other policy measures (Aalbu *et al.* 2008: 41). For example, a bigger budget will ensure lower interest rates, so more and cheaper money can be invested in improving the standard of living for local citizens. A larger municipality could also deepen the specialization of its officials, which would lead to more professional management of government functions (Aalbu *et al.* 2008: 36). Of course, the implementation of highly skilled professionals depends on their existence in the labour market and on the competitiveness of the working conditions offered by the municipality. Estonia's problems include the lack of policy

independent professional public officers and the resulting high dependence of public officers on policy fluctuations.

The fourth and last major justification for large municipalities says that larger municipalities are better able to ensure a fair and efficient allocation of public services and taxes. However, it does not actually matter how big the municipality is, but how the production of public services is divided between the central government and municipalities, and how effectively the intergovernmental financial transfer system functions.

In contrast to the one-sided and controversial justifications for larger municipalities there are approaches that emphasize the benefits of small municipalities. The theory most used for justifying the rationality of small municipalities is the theory of local expenditures created by Charles M. Tiebout (1956). This theory is based on competition among municipalities in designing the volume and structure of municipal revenues (charges, taxes) and expenses (services). People are thought to move to the municipality that best satisfies their personal preferences. The greater the number of municipality units (i.e. the smaller they are), and the more they differ from each other, the better the preferences of the people are satisfied (Tiebout 1956: 418). At the same time, the assumptions in the theory (Tiebout 1956: 419-420) clearly ignore the real situation:

- Consumer-voters are fully mobile and will move to the municipality where their preference patterns are best satisfied;
- Consumer-voters are assumed to have full knowledge of the differences between revenue and expenditure patterns and to react to these differences;
- There are a large number of municipalities in which the consumer-voters may choose to live;
- Restrictions due to employment opportunities are not considered;
- The public services supplied exhibit no external economies or diseconomies between municipalities;
- For every pattern of municipal services there is an optimal municipal size;
- Municipalities below the optimal size seek to attract new residents to lower average costs. Those above optimum size try to get rid of some residents. Those at the optimum try to keep their population constant.

If these assumptions were valid, municipalities would be like companies that compete with each other – the country would be the market, the revenue and cost structure of municipalities (taxes and public services offered) would be the product and the residents would be the consumers. As in a normal market, the supply of and demand for public services would determine the basis of the prices and volumes, which ultimately would determine the number of municipal residents. Unfortunately, full mobility of people does not exist in reality, people do not have full knowledge of the differences between revenue and expenditure patterns and there is not enough diversity among municipalities to fully satisfy the people's preferences. However, competition between municipalities can be found (Oates 1981: 93-94). For example, people searching for a place to live consider different

aspects which can be influenced by the municipality (e.g. the existence of kindergartens, schools, the crime rate, etc.).

Administrative decentralization and competition between municipalities, however, may lead to negative co-phenomena. Too much autonomy in municipalities and the lack of adequate coordination between the central and local governments allows municipalities to be inefficient in their spending and live beyond their revenues, leading to budget deficits and the appreciation of municipal borrowing because of the risk premium (de Mello 2000: 366). These financial imbalances could jeopardize macroeconomic stability throughout the country.

The problems in proving the rationality of small municipalities are similar to the problems proving the expediency of large municipalities. Because they are conflicting concepts, it is often possible to criticize the weaknesses of one concept with the strengths of the other and vice versa. The situation cannot be resolved with empirical studies either, because the theories are based on formal, unrealistic assumptions.

One way to overcome this situation is to recognize that according to geographical, historical, demographic, cultural, social, legal and economic circumstances, a certain optimal size of municipality can be found. It is sometimes believed that Club Theory can be used to find the optimal size of a municipality, because of the similarities clubs and municipalities have. According to Sandler and Tschirhart (1997: 335), a club is a voluntary group deriving mutual benefits from sharing one or more of the following: production costs, member characteristics, or a good characterized by excludable benefits. The club offers services that are financed through taxes that are paid by its members. It is relatively easy to see the similarities between clubs and municipalities in light of such explanations. Club theory must answer two questions: how much of the desired benefits should be produced and how many members should there be in the club (Rosen 1995: 528). The optimal size of the club is found when the marginal benefits that a member secures from having an additional member are just equal to the marginal costs that the member incurs from adding a member (Buchanan 1965: 5). Unfortunately, Club Theory cannot be used to find the best administrative-territorial division either, because there is no straightforward relationship between the public services offered by the municipality and the tax burden that the residents could adjust according to their preferences.

The analysis of different theoretical approaches shows that both large and small municipalities have their own advantages and disadvantages. A meta-theory that would synthesize these contradicting approaches and help to determine the best size of a municipality has not been developed yet. What is clear, however, is that an optimal size of municipality can exist only if municipalities provide public services with similar cost curves. In reality, the cost curves of public services are different, and therefore, the optimal production of various public services needs different sizes of municipalities. This means that a municipality of a certain size can be too small from the perspective of one public service and too big from the perspective of another public service. Thus, theoretically, there is no optimal size of municipality

and, consequently, the search for an optimal administrative-territorial division of a country is an unsolvable pseudo-task. Changing the territorial division can improve the supply of some public services, but will inevitably worsen the supply of other services.

3. Nordic experience in shaping administrative-territorial division

The above has shown that a theoretically justified best solution for a country's administrative-territorial division does not exist. In this case, investigating the experience of other countries may provide valuable information about a better administrative-territorial division. This approach relies on the assumption that the functioning administrative-territorial solutions of one country can be transferred to another country. Randma and Annus (2000) have written that such an assumption comes from the fact that the main administrative goals of municipalities in different countries are similar. However, this assumption ignores the fact that, in addition to the formal goals, the administrative organization of a country and its efficiency is impacted by cultural, geographical, historical, demographic, social and legal factors etc. Thus, the investigation of foreign experience must focus primarily on the study of different approaches, rather than copying solutions.

Next, an investigation of the administrative-territorial divisions and reform experiences of Nordic countries – Finland, Sweden, Norway, Denmark and Iceland – will be carried out. The investigation points out the characteristics and factors that could be useful when solving the problems of administrative-territorial division in Estonia.

Finland, like Estonia, has two levels of government – central government and municipalities. The municipalities in Finland are relatively small. Therefore, they have created special co-operative organizations for the joint provision of specific services. Participation in those joint municipal authorities is mostly voluntary. However, there are some areas where membership is compulsory – services such as health care (21 regions) or regional development and planning (19 regions). (Aalbu *et al.* 2008: 19) In addition to the joint municipal authorities, there are six Regional State Administrative Agencies and 15 Centres for Economic Development, Transport and the Environment that started operating on 1 January 2010. These agencies and centres are engaged in the provision of “national” public services at the regional level (the Reform Project for ... 2010).

Despite the orientation towards promoting cooperation between municipalities, the number of municipalities in Finland has decreased by more than one third since World War II: in 1955, Finland had a total of 547 municipalities, in 1977 the figure stood at 464 and dropped to 455 by 1996, in 2007 the number of municipalities had decreased to 416 and as of January 2011 the number of remaining municipalities is 336 (Trends in the number of municipalities 2010; Local Authorities 2011). These mergers have not been the outcome of administrative-territorial reforms. Economic hardships, on the one hand, and the central government's support on the other hand,

have led small municipalities to voluntarily join the larger and richer municipalities (Oitmaa, Rõigas 1998, 88-89).

In February 2007, a law was adopted in Finland that set two thresholds for the restructuring of municipalities and local services: a municipality must have at least 20 000 inhabitants to provide basic health services and 50 000 inhabitants to ensure vocational education. The impact of this law on the administrative-territorial division of Finland is not yet clear.

Sweden has two levels of sub-national government – municipalities and counties. Most local public services are offered by municipalities except health care services, which are mainly the responsibility of the county. The central government is represented at the regional level by the county administrative board and by the administrative authorities in various sector and regional organizations (Aalbu *et al.* 2008: 23). Swedish legislation places municipalities and counties on an equal footing, even though counties cover a larger geographical area than municipalities. Therefore, county councils are not superior authorities to municipal institutions (Local government in Sweden 2005: 4). According to Montin (2000: 3), the expansion of Swedish welfare state services can be reconceptualised as municipal welfare expansion.

Since the 1950s two administrative-territorial reforms have been carried out in Sweden. In 1946, the Swedish Parliament set 2000 inhabitants as the lowest limit for the size of a municipality (Gustafsson 1983: 28). As a result the number of municipalities fell from 2496 to 1037 by 1952 (Oitmaa, Rõigas 1998, 82). In 1964, the Swedish Parliament raised the minimum size of a municipality to 8000 inhabitants (Sandalow 1971: 773). The municipalities were given the right to decide for themselves whether or not a merger was necessary. As a result the number of municipalities decreased from 821 to 675 (Oitmaa, Rõigas 1998: 83). In 1969, the voluntary principle was cancelled because, despite the mergers, there were still municipalities whose population did not meet the required minimum (Oitmaa, Rõigas 1998: 83; Sandalow 1971: 773). Compulsory mergers reduced the number of municipalities to 278 by 1974 (Oitmaa, Rõigas 1998: 83).

Sweden is a useful example of how command mergers of municipalities carried out by the central government can lead to problems. During the last ten to fifteen years a number of municipalities have been partitioned into two or more units (Montin 2000: 3). One argument outlined for these separations was the need to develop democracy at local level, and it has been argued that the political activity of citizens is higher in smaller municipalities (Oitmaa, Rõigas 1998: 83). Therefore, the number of municipalities has increased to 290 (Municipalities, county councils and regions 2009).

Another problem with the Swedish administrative-territorial reforms was the sharp decrease in the number of elected political representatives. In 1951, there were about 200 thousand elected political representatives, but by 1974 the corresponding figure had dropped to 50 thousand. The decrease in the number of elected political

representatives reduced representation for various interest groups and the number of meetings with voters per representative also dropped. Different political measures had to be taken to increase the number of elected political representatives to 70 thousand by 1980. However, the reforms also improved the coherence of local policy with national policy (through intra-party relations and democracy), increased and deepened political debate over local issues and improved political awareness among citizens (Gustafsson 1983: 30-31).

Denmark, like Sweden, has two sub-national government levels – municipalities and regions. The regions are mainly responsible for the provision of health care services. Municipalities are responsible for basic education and other local services, and land planning (Aalbu *et al.* 2008: 16). There is no system of subordination between the regions and the municipalities, as they possess different tasks and responsibilities (The Danish Local Government System 2009: 4).

Denmark's central government has conducted two major administrative-territorial reforms since World War II. The administrative-territorial reform of 1970 decreased the number of municipalities from 1389 to 275 and the number of regions from 24 to 14 (The Danish Local Government System 2009: 3). With the second administrative-territorial reform, which ran from 2001–2006, municipalities were given more responsibilities and the number of municipalities was reduced from 271 to 98. At the same time the number of regions was reduced from 14 to 5 (Aalbu *et al.* 2008: 17-18). As a result the municipalities in Denmark are now significantly larger than in other Nordic countries.

Norway also has two local government levels – municipalities and counties. There are 430 municipalities and 19 counties and both have the same administrative status (Local Government in Norway 2008: 7). The Norwegian local and regional administrative-territorial division is characterized by stability, although there have been a few municipal mergers since 2000 (Aalbu *et al.* 2008: 21-22). Small changes at the regional level took place 1 January 2010, when the responsibility of the counties was increased. The largest single new task ascribed to the county authorities is responsibility for the national highways and the appurtenant ferry crossings (The county authorities... 2010).

Iceland has only one sub-national government level like Estonia and Finland. The population of Iceland's municipalities is often very small. The smallest municipalities are agricultural communities, whose population is in some cases within just 50 people. At the same time, Iceland is an urbanized country where the population of the capital region makes up nearly 75% of the entire population of Iceland (Aalbu *et al.* 2008: 25).

Iceland's government has repeatedly encouraged municipalities to merge. In 1950 there were 229 municipalities in Iceland, but by 1990 there were still 204. Currently there are 78 municipalities in Iceland, 14 of which have a population below 200 (Aalbu *et al.* 2008: 25-26).

The investigation of the developments of administrative-territorial divisions in the Nordic countries showed that experiences in shaping the national administrative-territorial division vary greatly. Denmark and Sweden have carried out compulsory mergers led by the central government, but the mergers in Finland, Norway and Iceland have taken place on a voluntary basis. The differences in the shaping of the administrative-territorial division may result from the different national visions for the role of the municipal sector in these countries. Sweden and Denmark had a strong central government and administrative systems long before the ideas of nationality began to spread. The municipalities in these countries are primarily aimed at achieving economic efficiency in public service provision and they should be viewed as extensions of the central government. Finland, Norway and Iceland, however, acknowledged themselves as nationalities long before they could be declared independent states and the municipalities are therefore strongly related to local identity and carry with them the values of self-determination (Aalbu *et al.* 2008: 8).

Similarly to Norwegians, Icelanders and in particular Finns Estonians acknowledged themselves as a nation earlier than they were able to declare themselves as an independent state. Also, Estonia's central government has not been able to carry out a compulsory administrative-territorial reform and so far the mergers have been carried out on a voluntary basis. Opposition to the administrative-territorial reform in Estonia can therefore result from strong national and communal identity, and still relatively weak state identity (Ruutsoo 2002).

In addition to investigating the development of administrative-territorial divisions in the Nordic countries, it is reasonable to compare data describing their current administrative-territorial divisions (see Table 1).

The data shows that the most populous municipalities are in Denmark and at the same time Denmark has the smallest municipalities by area. This is due to the high population density in Denmark, where it is more than six times higher than in Sweden and seems even higher compared to the other countries. Low population density may be one of the main reasons why the population of the municipalities in other countries is lower than in Denmark. With low population density, larger population would mean larger municipalities in terms of area. Areas that are too large could make the management of municipalities more difficult and the provision of public services economically less effective or more difficult to use. Sweden and Norway are trying to balance the existence of less populous municipalities with larger regions, which are able to achieve economies of scale in the provision of their services. In Finland, municipalities try to achieve economies of scale through cooperation. In Iceland, where population density is extremely low and the population small, creating regions does not make sense and there the central government provides services that in other countries fall often within the competence of municipalities or regions.

Table 1. Indicators of administrative-territorial division in Nordic countries

	Finland	Sweden	Norway	Denmark	Iceland
Population (people)	5 351 427	9 340 682	4 858 199	5 534 738	317 630
Area (km ²)	338 145	450 295	323 802	43 094	103 000
Population density (people per km ²)	16	21	15	128	3
Number of municipalities	336	290	430	98	78
Average population of municipalities (people)	15 927	32 209	11 298	56 477	4 072
Average area of municipalities (km ²)	989	1 553	753	440	1 321
Number of regions	- ¹	21	19	5	-
Average population of regions (people)	-	444 794	255 695	1 106 948	-
Average area of regions (km ²)	-	21 443	17 042	8 619	-

Source: Total population 2011; Europe 2011, Aalbu *et al.* 2008: 16-26, Finnish local government 2010; authors' calculations.

The population of Estonia is 1 340 021 in 2010 (Enim...2010) and the surface area 45 227 km², which makes Estonian population density 30 people/km². Estonia has 226 municipalities which means, that in 2010 the average number of inhabitants per municipality was 5 929 and the average area of a municipality was 200 km². The average population of the Estonian municipalities and the average area is therefore significantly lower than in Nordic countries (except Iceland). Therefore, there could be room for municipal mergers in Estonia's administrative-territorial division.

When comparing the sizes (especially the average populations) of municipalities, the tasks assigned to them have to be taken into account. A large number of tasks require an adequate municipal size to cope with the challenges, but few tasks enable the existence of small municipalities. In this aspect Estonia is better suited for an administrative-territorial division with smaller municipalities, where joint municipal authorities should be established for some services (following the example of Finland).

4. The development of Estonia's administrative-territorial division after regaining independence

The transition of Estonia's municipalities to the current arrangement began on the 8 August 1989, when the Supreme Soviet of the Estonian SSR endorsed the principles

¹ Finland operates on a regional level through various institutions, e.g. joint municipal authorities, Centres for Economic Development, Transport and the Environment, Regional State Administrative Agencies. Because their numbers, sizes and functions are different, general indicators for the regional level can't be given.

of administrative reform with the goal of restoring a democratic society. At that time, under Moscow, this was possible mainly at the local and regional level. Sections of the 1938 Constitution of the Republic of Estonia concerning municipalities were taken as the basis for the new municipalities. The principles of the European Charter of Local Self-Governments were also taken into account. On 6 December 1989, the Supreme Soviet of the Estonian SSR adopted the decree for the creation of a self-governing administrative system, in which the Soviet administrative units were changed to municipal units without any territorial changes. During the period 1990–1993, 242 towns and parishes received municipal status (Uuet 2002: 231).

On 28 June 1992, the new Constitution of the Republic of Estonia was adopted by a referendum (RT 1992, 26, 349), which stipulated the nature of Estonian municipalities. The Constitution created a legal basis for the development of Estonia's municipal structure to its modern form. On 12 May 1993, the Parliament adopted the Local Government Organization Act. Under this Act, Estonia's local government adopted a single-level system. The introduction of a single-level local government system was made so that administrative authority would be as close as possible to individuals to ensure the democratic development of society (Reiljan, Timpmann 2001: 424).

In 1995, the Territory of Estonia Administrative Division Act (RT I 1995, 29, 356) was adopted, which established the regulations for changing the number, size and names of municipalities. That Act regulated the merger of municipalities until 24 July 2004. Since the Act did not provide specific information on the issue of modifying the administrative-territorial division, the Estonian Parliament (*Riigikogu*) adopted the Promotion of Local Government Merger Act on 28 June 2004, which substantially modified the Territory of Estonia Administrative Division Act and the Local Government Organization Act. Since 1996, there have been 22 municipal mergers in Estonia, in which 51 municipalities have merged (Ligema 2007; Haldusterritoriaalse korralduse...2009).

When Estonia regained its independence, sudden changes in the administrative-territorial division were avoided. The deepening of regional inequalities has increased, despite the political discontent in this regard. Despite several administrative-territorial reform projects by the central government, the administrative-territorial division of Estonia has not changed significantly because of strong political and social opposition. Here we see the analogy with Finland that local identity is worth preservation in the eyes of the people.

The problem of regional inequalities, however, still needs to be dealt with. Since the main focus in Estonia has so far been on creating larger municipalities, it is reasonable to analyze, whether the size of Estonian municipalities causes their current problems. To do that, indicators that characterize the situation of Estonian municipalities have to be found.

Municipalities have to organize and manage local life based on the needs and interests of the population, and taking into account the specific development of the municipality. On the one hand, this requires a good knowledge of local conditions, which in theory should offer an advantage to small municipalities. At the same time, the needs and interests of the population may require such financial and administrative capacities that in theory are inherent to large municipalities. From the perspective of administrative division it is therefore important to identify which is the best size for municipalities to be able to organize and manage local issues.

The first group of indicators used in this study therefore will characterize the public service delivery capabilities and dynamics of Estonian municipalities:

- the position of the municipality in the Estonian municipality capability index (EMCI) ranking (Sepp *et al.* 2009: 13-16) – reflects the capability of a municipality to deliver public services;
- the position of the municipality in the territorial development index (TDI) ranking (Sõstra 2009: 53-57) – shows the development potential of a municipality;
- the municipality's score according to the development index of Enterprise Estonia (DIEE) (KOV finantsraport 2009) – shows the development dynamics of a municipality compared to previous years.

An analysis of the relationships between the indicators listed above and the parameters describing the size of a municipality will show whether the size of a municipality affects its capability to provide public services and its pace of development and further development potential. The analysis should also reveal whether it is possible to find the best administrative-territorial division from the perspective of capabilities and development.

The second group of indicators consists of financial performance and capability indicators, as adequate financial potential is needed to ensure the provision of public services and the development of the municipality. The group consists of the following indicators:

- the municipality's score according to the financial index of Enterprise Estonia (FIEE) (KOV finantsraport 2009),
- the debt reserve of the municipality (Kohalike omavalitsuste võlakooormus 2009) and,
- the free to use revenue² and gross revenue ratio of the municipality (Kuuaruanne 2009).

These indicators help to investigate the claim that larger municipalities have greater financial opportunities and better economic management. The analysis of the relations between the indicators listed above and the parameters describing the size of a municipality will show whether the size of the municipality has an impact on

² The free to use revenue consists of the following types of revenues: tax revenues, revenues from selling goods and services, and other revenues.

the quality of financial management in the municipality, the borrowing opportunities of the municipality, the financial autonomy of the municipality, and which kind of administrative-territorial division would be economically most efficient if significant relationships exist.

The study of different theories and approaches pointed out that the democracy argument can be used simultaneously for justifying the rationality of both large and small municipalities. The third group of indicators therefore consists of indicators characterizing the development of democracy in the municipality. The indicators are taken from the municipal council elections which took place in October 2009. The indicators used in this study are as follows:

- voter turnout,
- the number of candidate lists for election,
- the number of mandates and the number mandates per inhabitant,
- the total number of candidates and the number of candidates per inhabitant.

The total number of candidates shows the number of election options the inhabitants have and the number per inhabitant characterizes how active inhabitants are in running for election. The number of mandates shows the possibility for various interest groups to represent themselves in the council, the number of mandates per inhabitant indicates the ability of residents to participate in municipal governance, and the number of candidate lists can be considered as an indicator of political diversification in the community.

As pointed out earlier, increased cost-effectiveness is one of the most commonly used arguments for justifying the rationality of large municipalities. The fourth indicator group is intended to analyze this claim. However, overall cost-effectiveness cannot be proven because the content and quality of public services differ among municipalities. The only comparable costs among municipalities are the (general administrative) costs of governance for the municipality per capita.

The population size and the area of the municipality together with population density are indicators that are used to characterize the size of the municipality.

5. Empirical analysis of the impact of municipal size

The empirical analysis covered all the municipalities of Estonia. Data used in the analysis was taken from the years 2005 to 2010 from the following sources:

- Financial indicators from the summaries of the Ministry of Finance of the Republic of Estonia on annual budgets for Estonian municipalities from the years 2005 to 2010 (Kohalike omavalitsuste kuuaruanded 2005–2010);
- Municipal size indicators from the years 2005 to 2010 and municipal debt burdens from the years 2006 to 2009 from the database of Statistics Estonia (Population, area...2011; Debt burden of local governments...2011);
- EMCI and TDI ranks from the Statistics Estonia publication “Cities and rural municipalities in figures 2009” (Sepp *et al.* 2009: 13-16; Söstra 2009: 53-57);

- Developmental Index of Enterprise Estonia (DIEE) and Financial Index of Enterprise Estonia (FIEE) (KOV finantsraport 2009);
- Results from the Local Government Council Elections in 2009 from the Estonian National Electoral Committee (Valimistulemus...2011).

Towns and rural parishes provide different qualitative life and public service conditions for their inhabitants and we have to assume that the relationship between municipal size and economic success and democratic development is qualitatively different in different groups of municipal units (towns, rural parishes within town regions, rural parishes outside town regions). Qualitative differences can also be assumed between larger cities and small towns. Therefore, the relationships are analysed separately in qualitatively different subgroups of municipal units (see Table 2). The number of municipalities in different subgroups is outlined in the same table.

Table 2. Number of municipalities in different subgroups during the analysis period

Subgroup	Year					
	2005	2006	2007	2008	2009	2010
All towns	45	39	39	39	39	39
Small towns	40	34	34	34	34	34
All rural parishes	189	181	181	181	181	180
Rural parishes located in town regions	63	63	63	63	63	63
Pure rural parishes	126	118	118	118	118	117

Source: Kuuaruanne 2005; Kuuaruanne 2006; Kuuaruanne 2007; Kuuaruanne 2008; Kuuaruanne 2009; Kuuaruanne 2010; authors' calculations.

The relationship between the size of municipalities and their development level and dynamics was analysed in two groups of towns: the first group consisted of all the towns in Estonia, but five larger cities (Tallinn, Tartu, Narva, Pärnu, Kohtla-Järve) were eliminated from the second group (small towns). The comparison of the analysis results for these two groups should reveal whether the inclusion of larger cities significantly changes the results of the analysis or not.

The aforementioned relationship was also analysed in three subgroups of rural parishes. The first subgroup consisted of all the rural parishes except those whose population is less than 500. The second subgroup consisted of those rural parishes located either in the twelve city regions of Estonia (Eesti linnaregioonide...2002) or surround the largest town in each county. The third subgroup consisted of pure rural parishes – parishes that do not belong to the second subgroup of parishes. The division of rural parishes into different subgroups was carried out with the intention of finding out whether proximity to a town region changes the relationship between the size of parishes and their development level and dynamics.

The relationships between municipal size and municipal capability were analysed quantitatively in all the subgroups based on the following assumptions about qualitative similarity:

- population needs and interests do not differ significantly among municipalities;
- the provision of public services is guaranteed in all municipalities by law at least to a minimal quantity and acceptable level of quality;
- the democratic election mechanism ensures that the needs and interests of residents are met, and the laws are respected, otherwise citizens would choose other people to run the municipality.

The strength of the relationships was determined using correlation analysis. Both overall and partial correlations were analysed. The strength will be evaluated on the basis of the following classification:

- the correlation coefficient $r < 0.3$ – weak relationship;
- $0.3 < r < 0.7$ – moderate relationship;
- $r > 0.7$ – strong relationship.

It has to be noted that the smaller the EMCI and TDI ranking, the more successful the municipality. Therefore, positive correlations mean a negative relationship between municipal size and municipal performance whilst negative correlations mean a positive relationship between municipal size and municipal performance. Conversely, DIEE and FIEE are not rank but score based and, therefore, positive correlations indicate a positive relationship between municipal size and municipal development dynamics and municipal financial dynamics whilst negative correlations mean a negative relationship between municipal size and municipal development dynamics and municipal financial dynamics.

Table 3 presents the correlations between the indicators describing municipal size and those describing public service delivery capabilities; development levels and dynamics; financial capabilities; development of democracy; and expenditure on general governance in municipalities (hereafter municipal success indicators). The asterisks (*) at the correlation coefficients show the p-value of these coefficients (*** $p = 0.00$; ** $0.00 < p \leq 0.01$; * $0.01 < p \leq 0.05$).

As seen from Table 3, one subgroup has been left out of further analysis. After collecting the data, the subgroup consisting of all Estonian towns was left out because it was too heterogeneous. The largest city in Estonia, Tallinn, has nearly 400 000 inhabitants, Tartu, Pärnu, Narva and Kohtla-Järve each have more than 40 000 inhabitants, while 75% of Estonian towns have under 15 000 inhabitants and 50% have under 5 200 inhabitants. Therefore the largest cities were excluded from the analysis.

Table 3. Correlations between municipal size indicators and municipal performance indicators in different groups of municipalities

Correlation between		Small towns	All rural parishes	Rural parishes in town regions	Pure rural parishes
Municipal size indicator	Municipal performance indicators				
Population size	EMCI rank	-0.62***	-0.66***	-0.70***	-0.55***
Area size	EMCI rank	-0.30**	-0.29***		-0.43***
Population density	EMCI rank	-0.57***	-0.39***	-0.52***	-0.16**
Population size	TDI rank		-0.39***	-0.32*	-0.26**
Area size	TDI rank			0.29*	-0.23*
Population density	TDI rank	-0.36*	-0.33***	-0.34**	-0.18*
Population size	DIEE score		0.24***		
Area size	DIEE score			-0.26**	
Population density	DIEE score		0.31***	0.30**	0.14*
Population size	FIEE score		0.27***	0.22*	0.18**
Area size	FIEE score				0.13*
Population density	FIEE score		0.23***	0.23*	
Population size	Ratio of free-to-use revenue to gross revenue	0.22**	0.31***	0.28***	0.11**
Area size	Ratio of free-to-use revenue to gross revenue	0.22**	0.09**		0.21***
Population density	Ratio of free-to-use revenue to gross revenue	0.21**	0.29***	0.37***	
Population size	Voter turnout				-0.28**
Area size	Voter turnout		-0.26**	-0.31*	-0.26**
Population density	Voter turnout			0.40**	
Population size	Expenditure on governance per inhabitant	-0.38***	-0.31***	-0.24***	-0.34***
Area size	Expenditure on governance per inhabitant	0.27**		0.12*	
Population density	Expenditure on governance per inhabitant	-0.40***	-0.17***		-0.23***

Source: Calculated and completed by authors.

As seen from Table 3, some municipal success indicators have also been left out of further analysis. These are indicators whose correlations to the municipal size indicators were clear and as expected. For example, both the number of candidates and the number of mandates at the elections had strong positive correlations with the number of inhabitants in the municipality, but when calculated per inhabitant they had moderate or strong negative correlations with population size. The strong positive correlations mean that people living in larger municipalities have more election options and various interest groups should have better opportunities to represent themselves. On the other hand, the negative correlation of candidates and mandates per inhabitant with the population size of the municipalities shows that both the activity of people participating in the elections as a candidate and the opportunity of inhabitants to participate in municipal governance are lower in larger municipalities.

The correlations between the municipal size indicators and the number of candidate lists in a municipality were also left out of any further analysis because, as could be expected, the municipal size indicators had mostly moderate positive correlations with the number of candidate lists in a municipality. This means that larger municipalities tend to have more candidate lists in their elections and can therefore be considered politically more diverse than small municipalities.

The correlations between the debt reserve of a municipality and the municipal size indicators were also left out of any further analysis because, as expected, the debt reserve had a moderate positive correlation with population size and moderate or weak positive correlations with area size and population density in the municipality. This means that larger municipalities have better borrowing opportunities and should therefore be in a better condition to make large investments.

The remaining correlations between municipal size indicators and municipal performance indicators were analysed by comparing them with different subgroups. This helped to understand whether and how the effect of municipal size on the performance of a municipality differs among municipality groups.

Partial correlations were also calculated because the partial correlation coefficient represents the relationship of one municipal size indicator with a municipal performance indicator while the effects of the other municipal size indicators are removed. Consequently, the effects of different municipal size indicators on a municipality's performance could be better understood. Table 4 presents the partial correlation results.

Table 4. Partial correlations between municipal size indicators and municipal performance indicators

Partial correlation between		Small towns	All rural parishes	Rural parishes in town regions	Pure rural parishes
Municipal size indicator	Municipal performance indicators				
Population size	EMCI rank		-0.43***	-0.46***	-0.28***
Area size	EMCI rank	-0.39***	-0.07*		-0.15***
Population density	EMCI rank	-0.45***			
Population size	TDI rank		-0.21**	-0.33**	
Area size	TDI rank			0.36**	-0.19*
Population density	TDI rank				-0.19*
Population size	DIEE score		0.10*		
Area size	DIEE score				
Population density	DIEE score		0.10*		0.16*
Population size	FIEE score				
Area size	FIEE score				
Population density	FIEE score		0.11*		
Population size	Ratio of free-to-use revenue to gross revenue				-0.14**
Area size	Ratio of free-to-use revenue to gross revenue	0.26**	0.09**		0.25***
Population density	Ratio of free-to-use revenue to gross revenue	0.22**	0.16***	0.23***	0.17***
Population size	Voter turnout	-0.41*			
Area size	Voter turnout	0.44*	-0.16*		
Population density	Voter turnout			0.26*	
Population size	Expenditure on governance per inhabitant	-0.37***	-0.29***	-0.50***	-0.28***
Area size	Expenditure on governance per inhabitant	0.39***	0.15***	0.42***	0.13**
Population density	Expenditure on governance per inhabitant		0.12***	0.44***	

Source: Calculated and completed by authors.

When analysing the correlation coefficients presented in Table 3 alongside the partial correlation coefficients presented in Table 4, the following observations and conclusions can be made:

- Population size, area size and population density for a municipality each have a moderate positive correlation with the municipality service delivery capability assessed via the EMCI rank in most of the subgroups. However, the partial correlation coefficients show that size affects the municipality performance in the analysed subgroups differently. In the small town group the area size and population density of a municipality (assessed on the basis of the EMCI rank) have a positive correlation with municipality performance, but population size has no statistically significant relationship. Partial correlations for all three rural parish subgroups conversely show a strong relationship between population size of a municipality and municipality performance (assessed through the EMCI rank). Overall, it can be argued that larger municipalities tend to have a better ability for delivering public services.
- On the basis of correlations with the TDI ranking of municipalities, it is expected that population size and population density have a moderate or weak positive relationship with the territorial development level of municipalities in almost all of the municipality subgroups. Area size in different subgroups shows both positive and negative relationships with the territorial development level of the municipalities. The partial correlation coefficients also show that municipal size affects territorial development in different subgroups of municipalities differently. For example, in the small town subgroup no statistically significant partial correlations of municipal size indicators with the TDI rank are found. At the same time, in the subgroup of rural parishes belonging to town regions, both the population size and the area size have similarly strong correlations with the TDI rank, but in different directions. These results are, in turn, completely different in the subgroup of pure rural parishes, where population size has no statistically significant partial correlation with the territorial development of the municipalities, whilst area size and population density have weak positive correlations (negative partial correlations). These results show that no overall conclusion can be drawn about whether and how municipal size affects the development potential of a municipality.
- In some of the subgroups the population size and population density indicators of a municipality have a moderate or weak positive correlation with the development index of Enterprise Estonia (DIEE) (assessing the dynamics of municipal performance in comparison with 2003). Area size has a weak negative relationship with DIEE in one subgroup. Examination of the partial correlation coefficients shows the DIEE score for small towns and rural parishes belonging to town regions has no statistically significant partial correlations with any of the municipal size indicators, and the DIEE score for pure rural parishes has a weak positive partial correlation only with population density. Because the normal correlation analysis did reveal some statistically significant relationships, the claim that municipal size can affect the development dynamics of that municipality cannot be completely ignored. However, because the correlations opposed each other, a general effect cannot be found. Further, because the correlations were weak, it can be argued that the effect can be considered relatively minor and unimportant.

- Population size, area size and population density have some weak positive relations with the financial index of Enterprise Estonia (FIEE) in the rural parish subgroups. However, the partial correlation coefficients show almost no statistically significant relations between the municipal size indicators and the FIEE score. Because the normal correlation analysis did reveal some statistically significant relations, the claim that municipal size can affect the quality of financial management in the municipality cannot be completely ignored, but it can be considered relatively minor and unimportant.
- Population size, area size and population density each has a weak positive relationship with the ratio of free-to-use revenue to gross revenue of a municipality in most or all of the subgroups. However, the partial correlation coefficients show that the municipal size indicators affect the subgroups slightly differently: the most important difference is that population size has a significant partial correlation only with the ratio of free-to-use revenue to gross revenue in pure rural parishes and this correlation is weak and negative. The partial correlation coefficients of area size and population density are relatively similar to their correlation coefficients, being weak and positive. Despite the weakness of all the correlations, it can still be argued that larger municipalities tend to have a higher ratio of free-to-use revenue to gross revenue, and therefore, more financial autonomy.
- Population size has a weak negative correlation with voter turnout only in pure rural parishes. Area size has weak negative correlations with voter turnout in all rural parish subgroups. Population density has a moderate positive correlation with voter turnout in rural parishes belonging to the town. The partial correlation coefficients show different results: according to these, voter turnout in small towns is almost equally strong, but oppositely correlated with population size and area size. Voter turnout in rural parishes belonging to the town is still positively correlated only with the population density of the municipalities, and voter turnout in pure rural parishes does not correlate with any of the municipal size indicators. Overall, two arguments can be made. First, the effects of population size and area size seem to balance each other out in the small town subgroup, and thus, there is no overall relationship between municipal size and voter turnout. The second argument is that, despite the weakness of the relationships between municipal size and voter turnout in the rural parish subgroups, it can still be argued that larger rural parishes tend to have lower voter turnouts, mostly resulting from larger area sizes.
- Population size and population density have moderate or weak negative correlations with the governance expenditure of the municipalities per inhabitant. At the same time, area size has weak positive correlations with governance expenditure level (per inhabitant) for the municipalities. The partial correlation coefficients also reveal such opposite relationships. Accordingly, governance expenditure per inhabitant is often almost equally strong, but oppositely correlated with population size and area size. On the one hand, larger municipalities have lower governance expenditures per inhabitant because of their larger population size, but on the other hand, they have a higher governance expenditure level because of their larger area size. This means that

an overall relationship between municipal size and the governance expenditure per inhabitant cannot be established.

Table 5. Overall relationships between size and performance of the municipalities

Municipal performance indicator	In favour of large municipalities	No overall relationship with municipal size	In favour of small municipalities
EMCI rank	X		
TDI rank		X	
DIEE score		X	
FIEE score		X	
Municipal debt reserve	X		
Ratio of free-to-use revenue to gross revenue	X		
Voter turnout		X	X
Number of candidate lists	X		
Number of candidates	X		
Number of candidates per inhabitant			X
Number of mandates	X		
Number of mandates per inhabitants			X
Expenditure on governance per inhabitant		X	

Source: Completed by authors.

The conclusion of the empirical analysis is that most of the indicators analyzed have no statistically significant correlation with the size of the municipality and the ones that statistically significant correlations contradict each other. Therefore, the use of those indicators to argue in favour of the necessity of an administrative-territorial reform cannot be justified.

The obtained results coincide with the conclusion made in the theoretical part: it is not possible to define what the best administrative-territorial division is, since both large and small municipalities have their own advantages and disadvantages.

6. Conclusion

The analysis of the theoretical approaches to municipal size pointed out that they are fragmented and incompatible. Some authors support small municipalities, and others large. The theoretical reasoning of both those directions is often strongly simplified and biased and a unified metatheoretical approach has not been established.

To get an overview of practical experiences, the administrative-territorial division of the Nordic countries and the administrative-territorial reforms carried out in these countries were analyzed. The analysis revealed that both the current division, as well as the reform experience is varies. In Sweden and Denmark, the central government carried out a number of statutory municipal mergers, but in Finland, Norway and Iceland, the municipal mergers have taken place on a voluntary basis. The differences may be caused by differences in the historical evolution of the countries and in the different vision of the municipal sector's role in society.

The comparison of the administrative-territorial division of the Nordic countries with the administrative-territorial division of Estonia pointed out that Estonian municipalities have a considerably lower average population than the municipalities in the Nordic countries (except Iceland), and the area of Estonian municipalities is also much smaller. Therefore, it was concluded that there could be room in Estonia for municipal mergers. More interest, however, should be given to the experience of Finland, where instead of merging the municipalities (making them bigger) they have focused on the promotion of cooperation (sometimes organized by the central government) among municipalities.

In the empirical part we at first described the evolution of the Estonian administrative-territorial division during the last twenty years and then reveal the indicators by which the impact of the size of municipality on economic, financial and democratic development could be analyzed. The indicators used in this paper can be divided into four groups:

- indicators describing the public service delivery capacities, but also development level and dynamics of municipalities;
- indicators describing the financial capacities of municipalities;
- indicators describing the development of democracy in municipalities;
- indicators describing the economic efficiency of municipalities.

Correlation analysis was used to analyze the relationships between these indicators and the municipal size indicators (population, area and population density). The analysis revealed that there is no empirical evidence to confirm either the presence of significant size related advantages among municipalities or the existence of an optimal municipal size considering current municipal functions and financing. The lack of size advantages also means that with the current municipal functions and financing system an optimal municipal size cannot be found.

The lack of theoretical and empirical evidence on the necessity for administrative-territorial reform means that merging municipalities alone cannot significantly improve the public service delivery capacities and economic and democratic development of Estonian municipalities. This means that future studies should focus on analyzing public services from the perspective of their economic efficiency, quality and accessibility, and in doing so, determine the optimal size of regions for providing the various public services. Knowing the optimal size of regions would make it possible to reform the current provision of public services, either by creating

joint municipal authorities³ for services that require larger populations to be produced efficiently, or by creating smaller public service areas within current municipalities for services that need to be provided as close to the people as possible. The merging of municipalities, however, should be left for the municipalities themselves to decide.

Finding the best administrative-territorial division for a country is not a problem that can be solved with simple and quick municipal mergers. Forced merging of municipalities can be considered unconstitutional in Estonia, but the central government does have the possibility to intervene in the shaping of public services provision without undermining the autonomy of municipalities. Improving the situation, however, requires adequate analysis, not the application of force or intimidation.

References

1. **Aalbu, H., Böhme, K., Uhlin, Å.** Haldusreform. Argumendid ja väärtused. Nordregio, 2008.
[http://www.siseministerium.ee/public/Haldusreform._Argumendid_ja_v_rtused_Nordregio_2008.pdf]. 15.01.2010.
2. **Arumäe, U., Männiko, M., Kutman, P.** Avaliku halduse ülesannete ja -funktsioonide täitmise võimalikkusest Eesti eraõiguslike isikute ja/või välisriikide eraõiguslike isikute ja/või -avaliku halduse kandjate poolt. Raport. Tallinn: jaanuar 2010.
[<http://www.riigikantselei.ee/arhiiv/ahb/toogrupid/arumae1.htm>]. 13.04.2010.
3. **Bailey, S. J.** Local Government Economics: Principles and Practice. London: Macmillan Press, 1999, 359 p.
4. **Buchanan, J. M.** An Economic Theory of Clubs. – *Economica*, New Series, Vol. 32, No. 125, pp. 1-14.
5. **Byrnes, J., Dollery, B.** Do Economies of Scale Exist in Australian Local Government? A Review of the Research Evidence. – *Urban Policy and Research*, 2002, Vol. 20, No. 4, pp. 391-414.
6. **Dollery, B., Crase, L.** Is Bigger Local Government Better? An Evaluation of the Case for Australian Municipal Amalgamation Programs. – *Urban Policy and Research*, 2004, Vol.22, No.3, pp. 265-275.
7. **Dollery, B., Fleming, E.** A Conceptual Note on Scale Economies, Size Economies and Scope Economies in Australian Local Government. – *Urban Policy and Research*, 2006, Vol.24, No.2, pp. 271-282.
8. Eesti Vabariigi Põhiseadus. Vastu võetud rahvahääletusel 28. juunil 1992. a. – *Riigi Teataja*, 1992, nr. 26, art. 349.
9. Enim nõutud statistika. Eesti Statistikaameti kodulehekülj, 9. aprill 2010.
[<http://www.stat.ee/pohinaitajad>]. 08.04.2010.

³ The theoretical bases for designing collaborative public service areas have already been investigated in the field of Estonian general education (Friedrich, Reiljan 2010).

10. Europe. The World Factbook. CIA homepage.
[https://www.cia.gov/library/publications/the-world-factbook/wfbExt/region_eur.html]. 03.02.2011.
11. **Friedrich, P., Reiljan, J.** Strategies in the Fiscal Reform of Estonian General Education. – University of Tartu - Faculty of Economics and Business Administration Working Paper Series, No. 73, 2010.
12. **Gustafsson, A.** Local Government in Sweden. Uddevalla: The Swedish Institute, 1983, 138 p.
13. Haldusterritoriaalse korralduse muutmised aastatel 1992–2009. EV Siseministeerium, 18. jaanuar 2009. [<http://portaal.ell.ee/6755>]. 13.04.2010.
14. **Kjellberg, F.** Local Government Reforms and the Welfare State: Reorganization in Scandinavia. – The Dynamics of Institutional Change: Local Government Reorganization in Western Democracies. Edited by Dente, B., Kjellberg, F. London: Sage Modern Politics Series, 1988, Vol. 19., pp. 39-69.
15. Kohalike omavalitsuste võlakoorumus piirkonna/haldusüksuse järgi. Eesti Statistikaameti kodulehekülg, 30.juuni 2009.[http://pub.stat.ee/px-web.2001/Dialog/varval.asp?ma=RR40&ti=KOHALIKE+OMAVALITSUSTE+V%D5LAKOORMUS+PIIRKONNA%2FHALDUS%DCKSUSE+%C4RGI%2C+31%2E+DETSEMBER&path=../Database/Majandus_regionaalne/14Rahandus/08Valitsemissektori_rahandus/02Kohalike_omavalitsuste_eelarve/&lang=2]. 15.04.2010.
16. Kohaliku omavalitsuse korralduse seadus. Vastu võetud Riigikogus 2. juunil 1993. a. – Riigi Teataja I osa, 1993, nr. 37, art. 558.
17. KOV finantsraport 2009. Ettevõtluse Arendamise Sihtasutus, 15. aprill 2010.
[http://www.eas.ee/images/doc/Avalikule_ja_mittetulundussektorile/Kulastuskeskkond/kov-finantsraport.xls]. 11.04.2010.
18. Kuuaruanne 2009. EV Rahandusministeerium.
[<http://www.fin.ee/index.php?id=11182>]. 16.04.2010.
19. Local Authorities. Association of Finnish Local and Regional Authorities.
[<http://www.kunnat.net/EN/AUTHORITIES/Pages/default.aspx>]. 04.02.2011.
20. Local Government in Norway. Norwegian Ministry of Local Government and Regional Development. 2008: 32 p.
[<http://www.regjeringen.no/upload/KRD/Vedlegg/KOMM/internasjonalt/H-2224.pdf>]. 03.02.2010.
21. Local government in Sweden – organisation, activities and finance. Swedish Ministry of Finance, 10 January 2005, 23 p.
[<http://www.regeringen.se/content/1/c6/03/86/64/58543c32.pdf>]. 14.02.2010.
22. **Montin, S.** Between fragmentation and co-ordination: The changing role of local government in Sweden. – Public Management, 2000, Vol. 2, No. 1, pp. 1-23.
23. Municipalities, county councils and regions. The Swedish Association of Local Authorities and Regions. Page published 1 Oct 2009.
[http://www.skl.se/web/Municipalities_county_councils_and_regions.aspx]. 18.02.2010.
24. **Newton, K.** Is small really so beautiful? Is big really so ugly? Size, effectiveness and democracy in local government. – Political Studies, 1982, Vol. 30 Issue 2, pp. 190-206.

25. **Noorkõiv, R., Sepp, V.** Eesti kohaliku omavalitsuse üksuste võimekuse indeks – Metoodika ja tulemused 2005-2008. Geomedia. Ettekanne EV Siseministeeriumis, 22. september 2009. [http://www.siseministeerium.ee/public/KOV_v_imekuse_indeks_SM_Press_22_09.pdf]. 16.12.2009.
26. **Oates, W. E.** On Local Finance and the Tiebout Model. – The American Economic Review, Vol. 71, No. 2, pp. 93-98.
27. **Oitmaa, K., Rõigas, A.** Territoorium ja administratsioon Euroopas. – Vald ja linn tahavad ühineda: Ajalugu ja kogemusi. Koostanud K.-A.Lainurm. Tallinn: Jaan Tõnissoni Instituut, 1998, lk. 53-92.
28. Rahvaarv, pindala ja asustustihedus haldusüksuse või asustusüksuse liigi järgi. Eesti Statistikaameti kodulehekül, 12.mai 2009. [http://pub.stat.ee/px-web.2001/Dialog/varval.asp?ma=RV0291&ti=RAHVAARV%2C+PINDALA+J+A+ASUSTUSTIHEDUS+HALDUS%DCKSUSE+V%D5I+ASUSTUS%DCKSUSE+LIIGI+J%C4RGI%2C+1%2E+JAANUAR&path=../Database/Rahvastik_regionaalne/01Rahvastikunaitajad_ka_koosseis/04Rahvaarv_ja_rahvastiku_koosseis/&lang=2]. 10.04.2010.
29. **Randma, T., Annus, T.** Haldusreformi müüdid. Riigikogu Toimetised 2, 2000. [<http://www.riigikogu.ee/rito/index.php?id=11649&highlight=randma&op=archiv2>]. 01.02.2010.
30. Reform Project for Regional Administration. The Finnish Ministry of Finance. [http://www.vm.fi/vm/en/05_projects/03_alku/index.jsp]. 26.01.2010.
31. **Reiljan, J., Timpmann, K.** Eesti halduskorralduse arengu sõlmprobleemid. – Harmoniseerimine ja vabadus Eesti Vabariigi majanduspoliitikas integreerumisel Euroopa Liiduga. IX teadus- ja koolituskonverentsi ettekanded – artiklid. Tallinn: Mattimar, 2001, lk. 423-439. [http://www-1.mtk.ut.ee/varska/2001/Str_ettevotluspol/ReiljanJ_Timpmann.pdf]. 08.02.2010.
32. Relationship between the size of local and regional authorities and their effectiveness and economy of their action. Steering Committee on Local and Regional Democracy. December 2001, 25 p.
33. **Rosen, H. S.** Public finance. 4th ed. Chicago: IRWIN, 1995, 623 p.
34. **Ruutsoo, R.** Rahvusriik, identiteet ja Euroopa Liit. – Eesti ja Euroopa Liit, No. 16, oktoober 2000. [<http://www.riigikantselei.ee/failid/rahvusriik.pdf>]. 07.04.2010.
35. **Sandalow, T.** Local Government in Sweden. – The American Journal of Comparative Law, 1971, Vol. 19, No. 4, pp. 766-785.
36. **Sandler, T., Tschirhart, J.** Club theory: Thirty years later. – Public Choice, Vol. 93, pp. 335-355.
37. **Sepp, V., Noorkõiv, R., Loodla, K.** Eesti kohaliku omavalitsuse üksuste võimekuse indeks: metoodika ja tulemused, 2005–2008. – Linnad ja vallad arvudes 2009. Tallinn: Statistikaamet, 2009, lk. 10-31.
38. **Sepp, V., Noorkõiv, R., Loodla, K.** Kohaliku omavalitsuse üksuse haldusvõimekuse hindamine: indeks ja analüüs. Tartu: 2009, 17 lk. [http://www.siseministeerium.ee/public/KOV_indeksi_seletuskiri_2009P.pdf]. 20.01.2010.
39. **Sootla, G., Kattai, K., Viks, A.** Kohalike omavalitsuste 2005 a. ühinemiste ja selle tagajärgede analüüs. Uurimisaruanne. Tallinn: 2008, 93 lk.

- [http://www.siseministeerium.ee/public/Valdade__hinemine_L_ppfail_09_01_09.doc]. 08.01.2010.
40. **Sõstra, K.** Omavalitsusüksuse territoriaalarengu indeks. – Linnad ja vallad arvudes. Tallinn: Statistikaamet, 2009, lk. 43-57.
 41. **Teeväli, A.** Kohalike omavalitsuste sotsiaalmajandusliku arengu seos haldusterritoriaalse reformiga – aastatel 1999–2005 ühinenud omavalitsusüksuste sotsiaalmajanduslike muutuste analüüs. TÜ riigiteaduste instituut, 2009, 141 lk. (magistritöö)
 42. The county authorities as regional developers. Norwegian Ministry of Local Government and Regional Development. [<http://www.regjeringen.no/en/dep/krd/Subjects/rural-and-regional-policy/organisering-roller-og-ansvar/the-county-authorities-as-regional-devel.html?id=528754>]. 10.02.2010.
 43. The Danish Local Government System. Local Government Denmark, February 2009, 21 p. [http://www.kl.dk/ImageVault/Images/id_38221/ImageVaultHandler.aspx]. 18.02.2010.
 44. **Tiebout, C. M.** A Pure Theory of Local Expenditures. – The Journal of Political Economy, Vol. 64, No. 5, pp. 416-424.
 45. Total population. Eurostat. [<http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&language=en&pcode=tps00001&tableSelection=1&footnotes=yes&labeling=labels&plugin=1>]. 03.02.2011.
 46. Trends in the number of municipalities. The Finnish Ministry of Finance. [http://www.vm.fi/vm/en/15_municipal_affairs/025_municipal_boundaries/04_trends/index.jsp]. 26.01.2010.
 47. **Uuet, L.** Eesti haldusjaotus 20. sajandil. Teatmik. Tallinn: Eesti Omavalitsusliitude Ühendus, 2002, 311 lk.
 48. Valimistulemus valdades ja linnades. Vabariigi Valimiskomisjoni koduleht, 2010. [<http://www.vvk.ee/varasemad/kov09/detailed.html>]. 11.04.2010.