

# REVENUE BASE OF ESTONIAN LOCAL GOVERNMENTS, REGIONAL DISPARITIES AND ECONOMIC PROBLEMS IN THE MUNICIPALITIES OF THE CAPITAL CITY AREA

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## Introduction

The analysis of regional socio-economic development within our towns and cities has, until now, been generally treated in isolation, in other words, distinct units. In reality, an important trend in Estonian institutions, and primarily in the case of larger cities, is the period relating to the market economy in the aftermath of independence, (at least from the mid-1990's when the real estate market was formed), which has been connected to the origin of urban sprawl and urban areas. For that reason, numerous social, economic and environmental problems are evaluated independent of the status of the settlement and often independent of administrative boundaries and regions.

From statistics institutions of some countries, one can acquire data of cities only by sections of urban areas (*Principal Urban Area*). For example, according to the "City population" internet database, the population of Copenhagen (1,145.8 hundred thousand people) is solely taken from the urbanized area (*Principal Urban Area*). Similarly, it is known that within historical administrative boundaries, Copenhagen's population is half of that. In the case of Helsinki, the city's population is given as 564.5 thousand, and yet, the capital city area (*Principal Metropolitan Area*) population (1,027.3 thousand) is added. The aforementioned also applies to Stockholm where, within the city's administrative region, 782.9 thousand people live, whereas the capital city region is inhabited by 1,889.9 thousand people. It is significant to note that these complex urban areas play an increasingly important role in European Union (hereafter "the EU") regional politics.

It is commonly believed that the larger the city, the larger its area of influence. The concentration of the population is also a very important factor, including the percentage of the population of the city compared to that of the state, and its relation to the populations of other cities. In Estonia, 30% of its citizens live in the capital city. Within mainland Europe, this index is slightly larger only in Latvia, where one third of the country's citizens live in Riga. This circumstance confirms the need to study the socio-economic importance of the capital city area in Estonia.

This article analyzes the various joint economic problems of the capital city of Estonia, primarily the income base of the capital city and its surrounding towns and cities and the collaboration of service delivery of this region's municipalities. Furthermore, at the Union of Capitals of the European Union's (UCEU) 47th interna-

tional conference held in Tallinn in 2007, a declaration was passed which recognized that<sup>1</sup>: *“European Capital Cities are not only the seats of governments. They are the cultural and economic centres of Europe, vessels of identity, and places for tens of millions of the most productive and creative European citizens to live and work. The international competitiveness of the country as a whole depends upon the development of its capital, which is generally the country’s centre of innovation, the engine of its economic growth as well as the source of most of its revenues.”*

The authors of this article aim to analyze the following questions:

1. How can Tallinn as a capital city be defined and what characterizes its “golden circle” economy, primarily in connection to the income base of the municipalities?
2. How is economic growth influenced by income diversity of the municipalities, particularly in the context of personal income tax?
3. Is the city of Tallinn, for many distant regions (as one occasionally hears or reads), a “vampire” or rather a “donor”?
4. How does collaboration of services occur in Tallinn and its municipalities and what solutions can be utilized in developing the capital city area’s administrative model?

An essential part of the empirical database used in this article was gathered in 2007 at the request of Tallinn’s Municipality and Tallinn University of Technology regional political chair’s research article “Understanding the Capital City Area and Fundamental Urban Politics and Basic Developmental Directions”.

### **Determining the Capital City Area Boundaries and Certain Socio-political Indicators**

Based on Champion’s (2001) assessment, the urban area consists of the core city and its surrounding heartland, which forms the core city’s administrative region and whose inhabitants predominantly work in the core city. Different studies have given this amount as 15%, but also 25%. (Jauhiainen 2002) The well-known Estonian urban geographer, University of Tartu Professor Jussi J. Jauhiainen has noticed that Tallinn’s urban sprawl area extends 40 to 60 km from its administrative boundaries. This means that the capital city area’s eastern and south-eastern border extends to Loksa and Aegviidu (70 km from Tallinn), to Rapla on the south and to Paldiski, 50 km to the west. (Jauhiainen 2002; Tallinn and surrounding ... 2007) From a public administrative standpoint, the urban area can be defined as originating from the construction of a rational administrative model. In any case, defining the capital city area is debatable and depends on what is being studied (oscillating migration, collaboration of service delivery in the municipalities, national administrative structure, etc) and which problems need to be addressed.

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<sup>1</sup> Available at: [http://www.uceu.org/PDF/PDF\\_UCEU\\_Decl\\_EN.pdf](http://www.uceu.org/PDF/PDF_UCEU_Decl_EN.pdf).

For the purposes of this article, Tallinn can be defined chiefly by the capital city area and its nine surrounding municipalities (Jõelähtme, Harku, Kiili, Saku, Saue, Rae and Viimsi town and Maardu and Saue city). In general, these towns and cities are called Tallinn's 'golden circle municipalities' and are the main urban sprawl area of Tallinn. The municipalities have at least three common characteristics – rapid current account growth in recent years, a large percentage of people working in Tallinn and above average income tax accrual per capita (Table 1).

**Table 1.** Population and personal income tax accrual of Tallinn and its surrounding municipalities

		Population 01.01.2007	Share, %	Income tax in 2007, 1000 EEK	Share, %
1.	TALLINN city	398,599	83.3	3,562,420	80.6
2.	Maardu town	16,486	3.4	123,257	2.8
3.	Saue town	5,754	1.2	63,588	1.4
4.	Harku rural municipality	9,501	2.0	116,349	2.6
5.	Jõelähtme rural municipality	5,456	1.1	54,324	1.2
6.	Kiili rural municipality	3,615	0.8	38,899	0.9
7.	Rae rural municipality	9,161	1.9	97,040	2.2
8.	Saku rural municipality	8,194	1.7	91,825	2.1
9.	Saue rural municipality	8,013	1.7	88,120	2.0
10.	Viimsi rural municipality	13,527	2.8	181,417	4.1
	Region total	478,306	100.0	4,417,237	100.0

Source: Population registry, authors' calculations.

The urban area of Tallinn is similar to that of Estonian southern neighbour Latvia. This similarity lies in the increased population of the capital city and its adjoining municipalities versus the decrease of the general population, just as the capital city dominates over the rest of the country. This aspect distinguishes the urban areas of both Tallinn and Riga from that of Helsinki, where Helsinki, Espoo and Vantaa are more or less on par.

**Table 2.** The population of Riga City and its surrounding municipalities

		01.01.2007	Share, %
1.	Riga pils	722,485	88.73
2.	Balozi pils	4,565	0.56
3.	Salaspils novads	21,595	2.65
4.	Adazu novads	8,496	1.04
5.	Babite pagasts	6,746	0.83
6.	Carnikava novads	5,825	0.72
7.	Garkalne novads	5,781	0.71
8.	Kekava pagasts	12,825	1.57
9.	Marupe pagasts	11,017	1.35
10.	Olaine pagasts	6,387	0.78
11.	Stopini novads	8,567	1.05
		814,289	100.00

Source: The Latvian Office of Statistics (LV Centralas Statistika Parvalde).

It should also be pointed out, that the analysis of capital city areas of other countries in the EU shows the weightiness of the country's economy even when the capital city's share of the country's population is smaller, even under 10% (e.g. Belgium, Poland, Sweden). The GDP *per capita* of municipalities are, in general, higher than in the remaining regions of the country (Table 3).

**Table 3.** Economic activity in the capital city region (2004)

State	State, GDP/capita	Region	Region, GDP/capita
EU-27	21,502.9		
Estonia	6,914.0	North-Estonian region	10,810.4
Latvia	4,823.8	Riga region	8,843.7
Lithuania	5,275.3	Vilnius region	7,568.0
Poland	5,341.8	Mazowieckie region	8,091.4
		Warsawa city	15,050.0
Finland	29,065.7	Uusimaa region	39,577.3
Sweden	31,256.8	Stockholm region	43,045.8
Hungary	8,143.0	Budapest region	16,717.8
Belgium	27,792.1	Brussels region	55,441.8
Bulgaria	2,518.3	Sofia region	3,724.2
Czech Republic	8,543.7	Prague region	17,849.0
Slovakia	6,291.5	Bratislava region	14,341.6

Source: Eurostat.

It is relevant to note that 75% of Tallinn's citizens live in Harju County. Of the remaining counties, the only county centre with a share over 50% of the county's population is Tartu County; however, no one is greater than two-thirds.

### **Personal income tax as a source of revenue for Tallinn's urban area municipalities and regional income diversity**

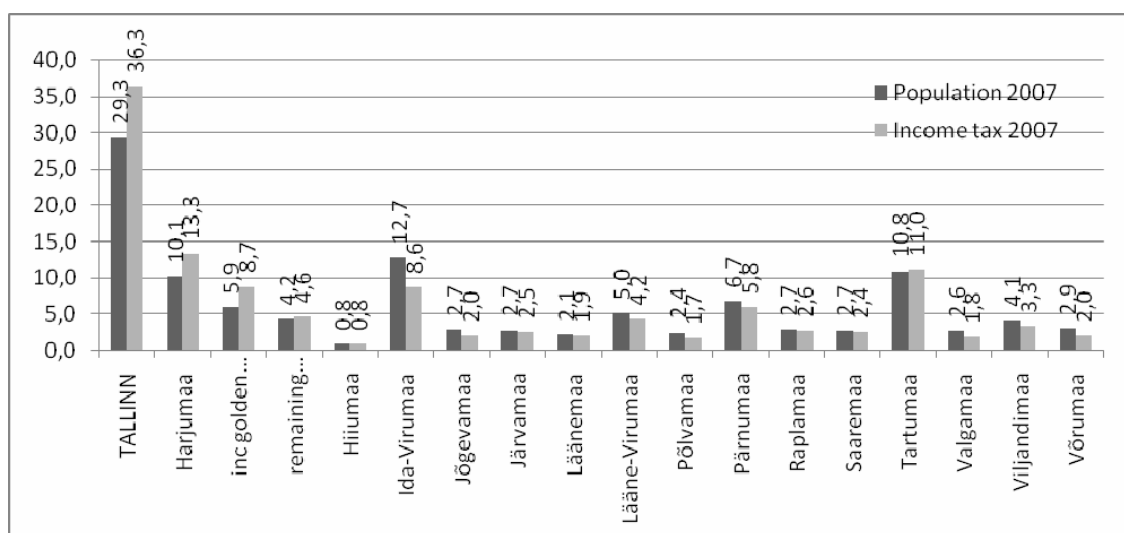
According to Estonian Constitution the state budget and local governments budgets are separated and local authorities have their own independent budget. The main sources of Estonian municipal revenue are as follows (see Table 4).

An interesting economic-political problem in recent years is the way economic growth has occurred and how the resulting rise in prosperity of the populace has affected regional income diversity throughout Estonia. Analysis of income tax contributions shows the persistence and further deepening of income diversity. To make the analysis significant, Harju County was distinguished from Tallinn's municipalities.

**Table 4.** Local Government budget 2004 and 2007, 1000 €

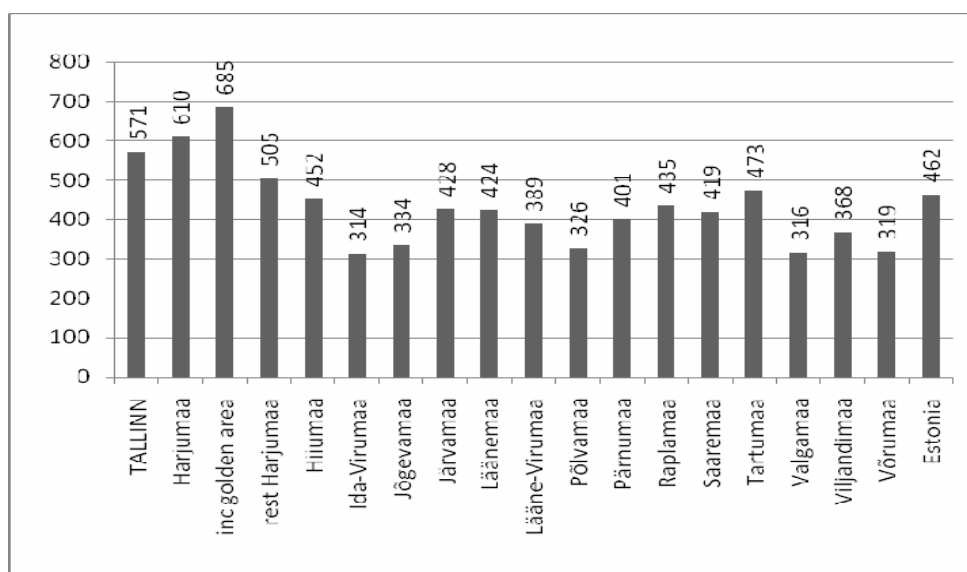
	2004	%	2007	%
Taxes	390,808	47.57	675,961	52.49
- personal income tax	354,356	43.13	629,772	48.91
- land tax	30,414	3.70	35,304.1	2.74
- local taxes	6,038	0.73	10,885.8	0.85
Income from economical activities and property	89,839	10.94	114,426	8.89
Equalization fund	59,667	7.26	93,313	7.25
Block grant from State Budget	152,635	18.58	206,084	16.00
Earmarked grants for current expenditures from State Budget	31,426	3.83	32,596.9	2.53
Investment grants from State Budget	33,581	4.09	61,016.7	4.74
Transfers from foundations and NGO-s	9,801	1.19	23,386	1.82
Sale of property	33,201	4.04	36,860.7	2.86
Other revenues	20,586	2.51	44,093.1	3.42
<b>Revenues</b>	<b>821,545</b>	<b>100.00</b>	<b>1,287.738</b>	<b>100.00</b>

Source: Ministry of Finance of Estonia, author's calculations.



**Figure 1.** Population and personal income tax accrual rate in 2007. (Ministry of Finance, Income tax 2002–2007; population registry, authors' opinions)

Until the year 2007, Harju County (and Tallinn) was the only county, where the income tax accrual share exceeded the population share. According to results based on the year 2007, Tartu County also barely exceeded this margin (thanks to the accruals of Tartu city) and Hiiumaa reached the margin.

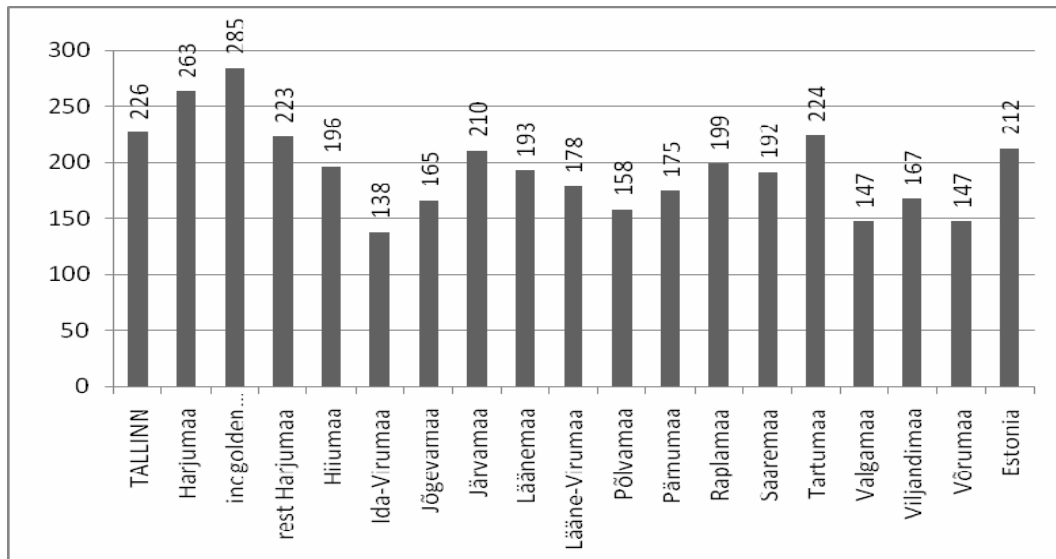


**Figure 2.** Income tax contributions per capita in 2007, €. (Ministry of Finance, Income tax 2002–2007; population registry, authors' opinions)

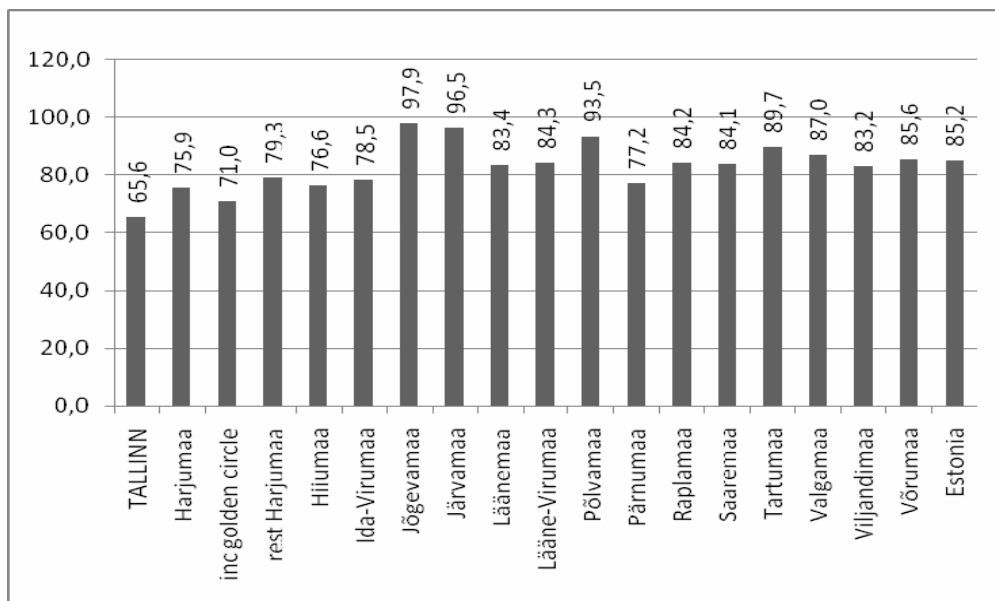
Income tax *per capita* shows that the regional income diversity that has occurred over the years, continues to endure. (Trasberg 2000; Ulst 2000) It is evident that accruals in Tallinn and the segment of Harju county known as the 'golden circle', are distinctly higher. At the same time, it should also be recognised that the remaining Harju County average, although lower than in Tallinn and the 'golden circle', exceeds that of other counties. Considerably lower tax revenue is in Ida-Viru, Jõgeva, Põlva, Võru and Valga counties. On average, these same counties had the lowest income tax revenues as well in 2000, according to a study from the University of Tartu's Institute of National Economy. (Ulst 2000)

As well, income tax absolute growth characterised in Figure 3 confirms the persistence and deepening of income diversity. This is particularly vivid in the growth of accruals in Harju County and primarily, the 'golden circle' (excluding Tallinn). Evidently it is conditional upon ongoing urban sprawl and the convergence of the more affluent populace within the boroughs and outlying towns of Tallinn. Although the remaining Harju County growth exceeds the average contribution of Estonia, it is nevertheless smaller than Tallinn and Tartu counties corresponding indices.

The relative growth of income tax accruals *per capita* was greater than average in the counties where the absolute income tax accrual was, on average, lower (Figure 4). This can be explained on the one hand, that in the case of lower absolute accrual, even a small absolute rise gives a larger growth percentage. On the other hand, it can presume the income growth of those counties inhabitants, tax culture improvement and economic recovery.

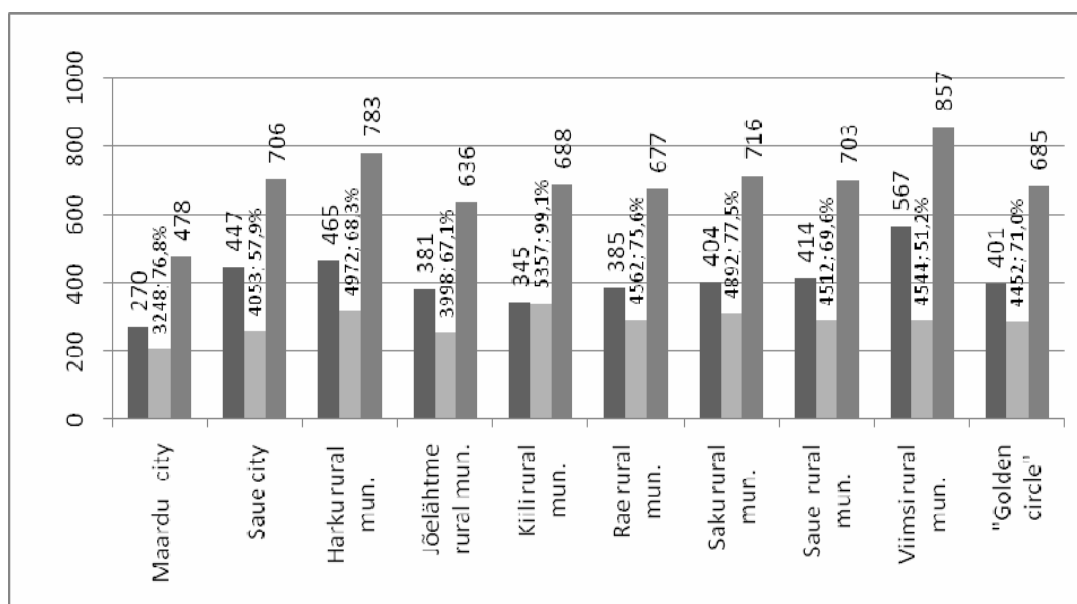


**Figure 3.** Absolute income tax growth *per capita*, € (2004–2007). (Ministry of Finance, Income tax 2002–2007; population registry, authors’ calculations)



**Figure 4.** Income tax accrual relative growth *per capita*, % (2004–2007). (Ministry of Finance, income tax 2002–2007; population registry, authors’ calculations)

The preceding analysis looked at Estonia as a whole and confirmed that income diversity between Tallinn’s urban areas and the rest of Estonia has increased, in spite of the relatively fast growth rate of the counties. Subsequently, income tax accrual dynamics of Tallinn’s ‘golden circle’ municipalities from the years 2004 to 2007 is analyzed (Figure 5).



**Figure 5.** *Per capita* income tax of Tallinn's 'golden circle' municipalities, € (2004–2007) and the absolute and relative growth. (Ministry of Finance, Income tax 2002–2007; population registry, authors' calculations)

The capacity of income tax accrual confirms that the 'golden circle' municipalities of Tallinn can be distinguished as many jointly distinctive groups. General conclusions are as follows:

- The city of Saue and the rural municipalities of Harku and Viimsi represent background indicators, the so-called early stages of urban sprawl. Although Viimsi can still be characterized by rapid population growth and concurrent income tax accrual absolute growth, the relative growth is on a decline since average accruals per capita are already so high. According to the authors' assessment, the rural municipality of Harku is approaching this same margin. The average income tax accrual in the city of Saue, in the authors' opinion, will not increase as a consequence of migration, due to a lack of further opportunities for residential construction.
- The rural municipality of Kiili is an example of a rapid urban sprawl target area. Whereas the initial population of this borough was small compared to other urban area municipalities, one can conclude that the greater than middle income populace that has settled in this municipality has determined both the absolute and relative growth of income tax accruals.
- The rural municipalities of Rae, Saku and Saue characterize the group of boroughs which, differing from Kiili, had initially a greater population and, therefore, the effect of the average wealthy migrant on the relative growth of accruals was smaller. A greater rate of population growth in these boroughs has occurred since 2004, the so-called second stage of urban sprawl.
- Active urban sprawl of the rural municipality of Jõelähtme has been discarded, supposedly thanks to its location and the unsuitability of residential construction in Tallinn's surrounding neighbourhoods.



## **The effect of income tax calculation methods on the municipalities and the state's revenue base**

Over the last dozen years, income tax calculation methods and rates in the cities and boroughs have changed many times. Income tax law (RT I 1993, 79, 1184, par. 8) which came into effect on January 1, 1994, gave a 26% rate held back from a natural person's income, from which 52% was accrued to the local government. In 1998, the law was changed (RT I 1998, 61, 679) and the local government received 56% of income tax, or 14.56% of gross income excluding deductions. This same relationship was continued in the 1999 adopted income tax law (RT I 1999, 101, 903), while important changes in income tax calculation took place in 2004. The old system's principal drawback was the municipalities' dependence on basic tax exemptions. Chapter four of the Income Tax Act proceeds from a resident natural person's right to make income tax deductions. The annual basic tax exemption beginning in 2006 is 24,000 kroner's (1554 €) per years, or 2000 kroner's (128 €) per month. (RT I 2003, 88, 587) This exemption is available to everyone who receives any kind of income, without exception. In addition to this, a resident person is allowed certain deductions during a taxation year, such as homeownership loan interest payments, education expenses, donations and professional association dues. Every change to allowed deductions has directly influenced the revenue base of the municipalities.

The parliamentary coalition formed after the 2003 election began to decrease the income tax rate and to gradually increase the annual basic exemption minimum. The continuation of the former system would have meant the automatic decrease in the revenue base of the municipalities and possible corruption to European municipal charters and constitutions enacted for municipal fiscal autonomy. For that reason, a principal change in income tax calculation methodology was made for municipal government and accruals were no longer calculated as a percentage of total income, but rather a percentage of a natural person's taxable income (without deductions). As of 2003, (RT I 2003, 88, 587) 11.4% of a person's taxable income was accrued to the municipalities. Henceforth, this rate was increased on a yearly basis, in 2007 it was 11.9% (RT I 2004, 89, 604 – 11.6%; RT I 2005, 36, 227 – 11, 8%; RT I 2006, 55, 406 – 11.9%).

The new methodology left all risks arising from deductions and income tax rates to be carried by the state. Tax evaders should know that Latvia's income tax law was used in Estonia until the 1994 established system. Act 26, page 4 stipulates that if changes in the law are made to the annual basic exemption minimum or deduction rate, the accompanying effects on the municipal government's revenue base and the corresponding compensation should be foreseen in the state budget.

The equalization fund apportioned from the state budget is meant for the economically weaker municipalities of Estonia but is not based on classic redistribution principles. Even though the formula for distribution of the equalization fund is based on objective criteria, it is dependent on the input amount of annual political agreements. (Trasberg 2002) Even so, one can raise the premise that sums accrued from income tax to the state can be used for the formation of the equalization fund and

thus, a larger portion of the state income tax accrual should come from economically wealthier municipalities.

In situations where the state has allowed for deductions and the richer populace has taken deductions in a large capacity is different by county, and requires a separate answer to the question, does the municipal government’s revenue base, independent of deductions, not cause a situation where the wealthiest municipalities (including Tallinn and its ‘golden circle’) accrue a smaller percentage to the budget than the poorest counties?

In 2006, on the basis of data from the Tax and Customs Board, a total of 21,507 billion kroner (1,374 billion €) in deductions were declared and applied (incl. the basic income tax exemption). Included in this, Tallinn declared (and applied) 6.95 billion kroner (0,44 billion €), or 32% of Estonia’s gross amount and Harju County 2.36 billion kroner (0,15 billion €), or 10.9% of Estonia’s gross amount.

Taking into account the percentage of the municipal governments accrued gross income by corresponding year and the state’s accrued income tax rate, Table 5 ventures a theoretical income tax share divided between the state and municipalities.

**Table 5.** Theoretical distribution of personal income tax between state and municipalities, %

	State budget	KOV
2004	56.1	43.9
2005	51.7	48.3
2006	48.7	51.3

Source: Ministry of Finance, income tax 2002–2007 (03.01.08), author’s calculations.

The local governments theoretical share has successively increased and, in addition to the aforementioned point, the reason for the increase in the municipalities’ accrued income tax rates is because of income tax rate lowering (in 2004 the income tax rate was 26%, 2005, 24% and in 2006, 23%). The income distribution presented in the above table is still purely theoretical, since presumably, no deductions can be made on taxable income. In actuality, the situation is otherwise and, as previously noted, all risks connected to deductions and income tax rate cuts are carried by the state budget.

Unfortunately, the Ministry of Finance and the Tax and Customs Board statistics does not permit individual municipality sections to ascertain how the corresponding city or borough should divide accrued income tax between the national and local budgets. Existing data allows for statistics exclusively by county, whereas only data from the city of Tallinn can be separately brought forth. Data from the Ministry of Finance’s municipal districts income tax accrual from 2004 to 2006, as well as the Tax and Customs Board 2004, 2005 and 2006 filed income tax returns were used to carry out the analysis. It should be noted, that the methodology used is deficient because it takes into account deductions that are made on filed income tax returns.

Those individuals, who are not required to file income tax returns, do not reflect the aforementioned data, although deductions in the form of annual basic exemptions are nevertheless used. Based on statistics from the Tax and Customs Board, this kind of deduction by county is impossible to differentiate.

Originating from previously mentioned restrictions, it is possible to calculate the state accrued portion maximum share by county. This means that the actual accrued portion to the state remains somewhat smaller than the calculations mentioned (Table 6).

**Table 6.** Income tax return held back portion *per capita* in 2004 and 2006

	County	2004	2006		County	2004	2006
1.	Tallinn	41,6	46,5	9.	Põlva	37,8	42,3
2.	Harju	41,8	49,8	10.	Pärnu	42,2	46,8
3.	Hiiu	48,2	50,8	11.	Rapla	40,6	45,5
4.	Ida-Viru	36,3	39,4	12.	Saare	44,2	49,5
5.	Jõgeva	37,2	42,2	13.	Tartu	39,9	44,4
6.	Järva	43,9	50,0	14.	Valga	35,0	40,1
7.	Lääne	42,3	47,4	15.	Viljandi	38,7	43,0
8.	Lääne-Viru	38,8	43,5	16.	Võru	36,2	41,3
<b>Total for Estonia</b>		<b>40,5</b>	<b>45,4</b>				

Source: Tax and Customs Board, income tax return summaries 2004, 2006, author's calculations.

**Table 7.** State budget and taxpayer's budgetary accrued income tax rate by county section on the basis of income tax return data summary from 2004–2006

	2004		2005		2006	
	State budget	KOV	State budget	KOV	State budget	KOV
Tallinn	42,7	57,3	33,8	66,2	28,9	71,1
Harju	43,7	56,3	35,1	64,9	29,5	70,5
Hiiu	38,5	61,5	26,4	73,6	20,6	79,4
Ida-Viru	34,3	65,7	21,9	78,1	12,5	87,5
Jõgeva	34,0	66,0	19,5	80,5	12,5	87,5
Järva	36,0	64,0	24,1	75,9	18,2	81,8
Lääne	38,2	61,8	26,4	73,6	20,4	79,6
Lääne-Viru	39,0	61,0	28,9	71,1	22,2	77,8
Põlva	32,8	67,2	19,1	80,9	13,2	86,8
Pärnu	36,4	63,6	24,3	75,7	18,5	81,5
Rapla	39,5	60,5	28,6	71,4	22,5	77,5
Saare	36,8	63,2	24,0	76,0	19,3	80,7
Tartu	39,3	60,7	29,3	70,7	23,1	76,9
Valga	36,1	63,9	22,4	77,6	15,5	84,5
Viljandi	37,0	63,0	24,2	75,8	18,1	81,9
Võru	35,0	65,0	20,4	79,6	15,1	84,9
<b>Total</b>	<b>40,1</b>	<b>59,9</b>	<b>30,0</b>	<b>70,0</b>	<b>24,3</b>	<b>75,7</b>

Source: Ministry of Finance, income tax 2002–2007 (03.01.08), Tax and Customs Board, income tax return summaries 2004, 2005, 2006, author's calculations.

On the basis of Table 7, it may be concluded that the income tax accrued by Tallinn and its urban area municipalities accrues a larger percentage of income to the state budget than other municipalities, even taking exemptions into account. In the opinion of the authors, this is because incomes in Tallinn and Harju County are so high that the corresponding balance of deductions is still small (see Table 5). One needs to take into account that the basic part of deductions comes from the annual basic exemption and that benefit is used without exception by all income earners. Likewise, this effect is smaller, the larger the taxpayers absolute income. As shown in table 6, the state's accrued portion is smallest in those counties where *per capita* contribution was the lowest average in Estonia. The given index correlation coefficient is  $-0.94$ .

### **The development of the urban areas of Tallinn presumes collaboration**

In the summer of 2007, the municipality of Tallinn requested a study to be carried out by the chair of regional politics at Tallinn University of Technology. The purpose of this study was to question the capital city's surrounding counties and cities leaders and gather information on the mutual collaboration of service delivery, primarily the shortcomings and future possibilities. The study's main object was Tallinn's urban sprawl-affected area.

To date, urban sprawl in Estonia has been studied primarily by its self-organizing aspect. This is also the case in the capital city area. For example, the University of Tartu's geography department's study tracking the location and migration of people, using mobile telephones. These valid studies give an overview of the flow of movement of the populace within a region, etc. The problem for social experts is, to what extent is urban sprawl and all that is connected to it, ruled by societal self-organization and market economy (real estate prices, automobile and public transportation costs, etc.).

The municipalities of Tallinn saw opportunities for collaboration in universal education, public transportation, waste economy and joint planning actions. In addition to these areas, were denoted the development of public waterworks and sewage, planning and construction of road networks, and the planning of cemeteries and recreation areas.

The answer to the question "what is hindering improved collaboration between the municipalities of the capital city area?" is, among other things:

1. Collaboration does not occur because the income base of the municipalities allows them to manage independently.
2. Collaboration occurs when necessary and as little as possible.
3. The politicians from each town and city wishes to see its own municipality at an advantage.
4. Collaboration should be longer term than one municipal council electoral period (4 years).
5. Collaboration is feared by municipal council members who represent the interests of the inhabitants (electorate) of a smaller district and so, choose to be

uncooperative not only with neighbouring towns or cities but also with their own hometown centre.

6. Especially with the location of educational institutions (beginning with pre-school institutions), politicians have given permission for the development of their own village, hamlet or other inner town section, whereby a rational inter-town educational network is difficult to imagine, not to mention that area's collaboration with other municipalities.
7. Legal obstacles hinder cooperation between towns and cities, for example the organization of public transportation.
8. The present margin of authority seems to favour competition between municipalities and this inhibits collaboration, since the principle "collaboration through competition" is not understood.
9. The situation in Tallinn's regional waste economy, where the final deposit is in private hands and is the cause of excess expenditures for waste management.

In a democratic society, public administration, including local bodies, is there to help direct societal processes in the public's best interest. According to local government organization law (3: 7), their one assignment is to deliver a public service under the most favourable conditions. Actually the concept "service delivery" should have a broader treatment. The mission of the municipalities is to guarantee the delivery of services for the inhabitants of its towns or cities, regardless of whether they are rendered for their own agencies or undertakings or in partnership with business organizations or non-governmental organizations; or purchasing services from private enterprises or some other municipality's agencies or undertaking institution or partnership with business or non-governmental organisations. This raises the fundamental question: should services be delivered only to the inhabitants of one's own town or city or should this be more widespread? This problem became reality a few years ago in connection with the public transportation system of Tallinn, where the towns and cities surrounding the capital city did not feel it necessary to contribute to its financing, and were serviced exclusively from the budget of the capital city's subsidized public transport. The authors believe that every town and city should have an independent budget, whereby they can observe the principle to deliver public services to its inhabitants under optimum conditions. Reputedly, from the results of this argument, Harju County's Public Transport Centre was formed as a collaborative institutional format.

Of fundamental importance is the question which we refer to as the collaboration between municipalities. Is studying in the school of another town or city still collaboration? Or is it rather a bookkeeping operation, wherein occurs a balanced account. In the authors' opinion, the municipal districts can speak of collaboration only then, when self-organized operations for the consumption of services attempt to direct and coordinate on the part of public administrative institutions, in a lawful and organized manner.

An important task for public administration is, in accordance with regulations, to create a legal and economic space that answers to the needs and opportunities of society (at any given stage) and allows for the rise in the well-being of its inhabi-

tants. In certain cases, the creation of a legal space may demand the acceptance of respective by-laws, although the municipal body's regulations will often suffice. For the creation of both legal and economic spaces (including respective administrative structures) it is practical to become acquainted with the experiences of the collaborative units of capital cities in other countries (first and foremost Helsinki).

The building of a management model for the capital city area urban sprawl presents a serious challenge for public administration and municipal experts. In the capital city area, administrative organizational regulations can be isolated into three different models (Barlow 1993, 1994): the unitary city model, the two-tier city model and the polycentric model. The city of Tallinn presents a polycentric model: the capital city area is divided between many independent and equal status municipalities and lacks a so-called higher level of regional municipalities, collaboration is voluntary and self-organized. It should be emphasized that the legal system of Estonia does not allow for a different version of capital city area collaboration. This raises the question as to whether the development of the urban sprawl region should be exclusively in the authority of society's self-organized and market economy (real estate prices, car and public transportation costs, etc). The voluntary collaborative model generally works in the democratic and administrative culture in western and northern Europe.

Already in 1956, Charles Tiebout brought forth a hypothesis which later was named the Tiebout hypothesis. (Tiebout 1956) The idea behind this hypothesis is that the wealthier and, therefore, higher income municipalities can afford supplementary public services which entice new inhabitants to the administrative territory. Even though a reasonable competition between municipalities is necessary for development, it is in the public interest for the regions to progress in a healthy and balanced way and this includes the capital city area. The municipal district legal by-laws of Estonia promotes a competition between the municipalities, whether that be in reference to the residency registration question, various subsidies, kindergarten spots, etc. As previously pointed out in the study carried out by Tallinn University of Technology competition is one of the most important factors which impede collaboration. (Capital City area ... 2007)

Taking into account the domineering function of Tallinn's capital city area (Table 2) an administrative order model based on a two-tier municipal model does not suit this area. And in the framework of Estonia's unitary municipal system, it is pointless to establish a two-tier system state in one part. Presumably this would give rise to many legal problems. A considered alternative could be a so-called mandatory collaborative model, worked out and applied in a similar way to Helsinki's collaborative formation established by the Helsinki Urban area Collaborative Region or Latvia's regional developmental act established for planning areas. (Vanags, Vilka 2006) According to the authors, the Helsinki model would suit the municipalities of Estonia's capital city collaborative organization and, in certain domains (public transportation, waste management, planning, etc) authorize equivalent collaboration similar to Finland.

## Summary

The economic growth in Estonia in recent years has impacted the income base of municipalities and foremost, income tax accrual. For the municipalities of Tallinn's 'golden circle', this has meant the profitable growth of income tax accrual. In comparison, economically weak counties, regardless of rapid development, have not lost regional income. Large and deepening regional income disparities hint at the need for reforms in the municipal equalization fund. Separate from income taxes, the state budget equalization fund is not in its present form dependent on economic growth and, therefore, does not answer to the actual needs of the municipalities. The utilized support system mechanism does occur, although not on the principal of solidarity, i.e. at the expense of the wealthy. Similarly, the equalization fund's input amounts are not dependent on income tax accruals but rather on the question of political agreements. Large regional income disparities are not a problem specific to Estonia, it is also known in the other Baltic States. (see also Vanags, Vilka 2006)

In the complicated economic climate of 2008, it is more difficult to predict the forward dynamics of Tallinn's 'golden circle' municipalities' income tax accrual. It should be taken into consideration that in 2008, income tax accruals are dependent on the number of inhabitants of a town or city as of December 31, 2007. Hence, one can predict the income tax revenue absolute growth in 2007 by the number of additional inhabitants. Similar growth depends primarily on a healthy economy, although a slowdown in economic growth affects all regions of Estonia.

The authors demonstrated that Tallinn and its urban area 'golden circle' municipalities accrue a larger amount of income tax in terms of both percentage and estimation into the state budget than economically weaker regions and thus, redistribution of income occurs, although circuitously. Secondly, the author's analysis revealed that, due to the methodology used for income tax calculation and distribution, the state's accrued income tax share continues to decrease. The gradual lowering of the income tax rate and the overall increase of the annual basic exemption assumes the need to carry out adequate calculations and substantiated solutions to assure the ongoing capability of the municipalities' income base. In the coming years the income tax rate will continue to decrease by one percentage point per year (in 2008 it is 21%, by 2011, 18%), basic annual tax exemption increase and the establishment of additional tax exemptions from the first child onwards (as of 2008). In principal, it is possible to use the gross income of an individual exclusively as a standard component of income base.

To improve service delivery to the inhabitants of the urban area of Tallinn, it would be practical to legalize the collaboration of the capital city area's municipalities and alter the present voluntary collaboration within certain counties, into mandatory collaboration.

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