

Determination of Socio-Economic Development Level of Regions by Territorial Development Indexes

Dr.habil.oec., Professor Edvins Vanags
Director of the Latvian Statistical Institute
e-mail: [lsi\[at\]latnet.lv](mailto:lsi[at]latnet.lv)

Dr.habil.oec., Professor Oļģerts Krastiņš
Main researcher of the Latvian Statistical Institute
e-mail: [lsi\[at\]latnet.lv](mailto:lsi[at]latnet.lv)

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Territorial differences among Latvia's towns and areas in 2004

Indicator	Municipality and numeral meanings of indicators		Difference, times
	best	worst	
Unemployment level to working age population, %	Ikšķile area 2.3	Zilupe area 21.2	9.2
Personal income tax per capita, in LVL	Balozi town 194.0	Subate town 45.7	4.2
Demographic burden per 1,000 working age population	Balozi town 409.9	Līgatne town 788.9	1.9
Change in the number of population, % (2000.01.01. – 2005.01.01)	Ikšķile area 11.3	Strenci town -10,6	-

Regional policy and territorial statistics

- ◆ After the re-establishment of independence and especially after Latvia's accession to the EU the role of regional and local governments as well as of regional policy is increasing
- ◆ In this situation the importance of territorial statistics is also rising
- ◆ The Central Statistical Bureau of the Republic of Latvia publishes a yearbook "Latvia's Regions in Figures", which contains information on each district, the planning and statistical regions for recent years
- ◆ In the first years after the restoration of the independent Republic of Latvia no special attention was paid to regional policy
- ◆ Only in 1997 the law on assisted regions was passed
- ◆ In 1997 the assisted regions were determined using the main statistical indicators and ranking methods
- ◆ In 2000 the new method of identification of the assisted territories was worked out by the Latvian Statistical Institute
- ◆ This method uses standardisation of statistical indicators and sequential calculation of the territorial development index for each territorial unit

Calculation of the territorial development index

- ◆ The level of socio-economic development is determined by means of the territorial development index
- ◆ It is calculated using the standardisation of the main statistical indicators
- ◆ Standardisation is necessary to make all indicators comparable and united with the general indicator
- ◆ As a result of standardisation the initial measuring units of indicators disappear, so the different indicators become mutually comparable
- ◆ The difference between the concrete value of an indicator for a specified territory and the mean value of the indicator within the group is divided by standard deviation
- ◆ The standard values are multiplied by the difference weights of the importance of the indicator (from 0.05 to 0.3) and results are then summed up
- ◆ The final sum is the territorial development index
- ◆ The ranked territorial development index shows the place of a specified territorial unit

Indicators and their weights used for determining the assisted regions

Indicator	Districts and regions		Rural municipalities		Cities and towns	
	+ or - ^{x)}	weight	+ or -	weight	+ or -	weight
Gross domestic product per capita	+	0.3	-	-	-	-
Unemployment level to working age population, %	+	0.15	+	0.25	+	0.3
Personal income tax per capita	+	0.1	+	0.25	+	0.3
Non-financial investment per capita	+	0.1	-	-	-	-
Level of demographic burden	+	0.1	+	0.15	+	0.2
Number of economically active enterprises per 1000 population	+	0.1	-	-	-	-
Population density per km ²	+	0.05	+	0.1	-	-
Average cadastral value of land	-	-	+	0.1	-	-
Change in the number of population	+	0.1	+	0.15	+	0.2
<i>Sum of weights</i>	-	1.0	-	1.0	-	1.0

^{x)} "+" means that the indicator is used, but "-" means that the indicator is not used.

Main indicators and the development index of Balozi town in 2004

Indicators	Balozi town x	Average for all towns		Calculated values		Weight v	Develop-ment index and its components tv
		average \bar{x}	standard deviation S	deviation from average $x - \bar{x}$	standard value $t = \frac{x - \bar{x}}{S}$		
Unemployment level to working age population, %	3.3	5.5	2.8	-2.2	-0.786	0.3	0.236
Personal income tax per capita, LVL	194	156	35.6	38	1.067	0.3	0.320
Level of demographic burden per 1,000 of working age population	410	547	39.4	-137	-3.477	0.2	0.695
Change in the number of population, % (2000.1.01. – 2005.1.01.)	3.1	-3.2	3.4	6.3	1.853	0.2	0.371
Total (development index)	X	X	X	X	X	1	1.622

Remark: A low unemployment level and a low level of demographic burden indicate a good development level so the algebraic signs of these components are therefore changed to opposite before summing up.

The main indicators and development index of Viresu rural municipality in 2004

Indicators	Viresu rural municipality x	Average for all rural municipalities		Calculated values		Weight v	Development index and its components tv
		average \bar{x}	standard deviation S	deviation from average $\bar{x} - x$	standard value $t = \frac{x - \bar{x}}{S}$		
Unemployment level to working age population, %	2.7	7.9	5.4	-5.2	-0.96	0.25	0.24
Personal income tax per capita, LVL	74.6	82.3	40.0	-7.7	-0.19	0.25	-0.05
Level of demographic burden per 1,000 of working age population	627	609	78.5	18	0.23	0.15	-0.03
Population density per km ²	5.1	11.8	10.1	-6.7	-0.66	0.10	-0.07
Average cadastral value of land, LVL/hectar	93	144	147	-51	-0.35	0.10	-0.04
Change in the number of population, % (2000.1.01. – 2005.1.01.)	-5.3	-2.7	7.3	-2.6	-0.37	0.15	-0.05
Total (development index)	X	X	X	X	X	1	0.00

Evaluation of territorial development indexes

- ◆ **Above 3.0** - The territory is extremely well developed
- ◆ **2.0 – 3.0** - The level of development is very good
- ◆ **1.0 – 1.9** - The level of development is good
- ◆ **0.5 – 0.9** - The level of development is rather good
- ◆ **0 – 0.49** - The level of development is slightly positive
- ◆ **0 – -0.49** - The level of development is slightly negative
- ◆ **-0.5 - -0.9** - The level of development is rather bad
- ◆ **-1.0 - -1.9** - The level of development is bad
- ◆ **-2.0 - -3.0** - The level of development is very bad
- ◆ **under -3.0** - The territory is extremely undeveloped

Some figures on towns

- ◆ There are 77 towns in Latvia
- ◆ According to the territorial development indexes in 2004, the list of 15 strongest towns consists of 12 towns in the Riga planning region, 2 towns in the Zemgale region and 1 town in the Kurzeme region
- ◆ The list of 15 weakest towns is more equable including 7 towns in the Latgale region, 4 in the Vidzeme region, 2 in the Zemgale region and 1 in each of the Riga and Kurzeme regions
- ◆ Balozi town with the value of 1.622 is in the first place. Its development is balanced and harmonised
- ◆ All four main indicators – components of the territorial development index for the Balozi town are better than the average for the country. The indicator “the demographic burden level per 1000 working age population” with the value of 0.695 has the strongest impact.
- ◆ In all of the 15 weakest towns the number of residents has decreased

Use of the territorial development indexes

- ◆ For the determination of the socio-economic development level of regions and local governments
- ◆ For the identification of assisted territories
- ◆ For differentiation concerning the distribution of state and local government co-financing to the EU Structural Funds projects
- ◆ For the analysis and forecasting of the socio-economic development of regions and local governments
- ◆ For proving the usefulness (efficiency) of the administrative territorial reform
- ◆ For investigating the connection between the socio-economic development level of the territorial unit and activity of voters

Identification of the assisted territories in Latvia

- ◆ The status of assisted territory is assigned by the Planning Region Development Council for a period of three years
- ◆ The status of assisted territory could be assigned to local governments – rural municipalities, towns and areas (the areas are amalgamated local governments)
- ◆ The number of population in the assisted territories cannot exceed 25% of the total number of population in Latvia
- ◆ The potential assisted territories are determined using the territorial development indexes, which are calculated separately for rural municipalities and towns
- ◆ The total number of population in each planning development region is assigned by the National Regional Development Council taking into consideration the territorial development indexes
- ◆ The status of assisted region was assigned to 337 local governments (64% of the total number of local governments in Latvia) in the period from 2004 to 2006

Differentiation of the state and local government co-financing to the EU Structural Funds projects

Group of local governments according to the territorial development index	Part of the state budget, %	Part of the local government budget, %
I (strongest)	20	80
II (second strongest)	30	70
III (medium)	40	60
IV (second weakest)	50	50
V (weakest)	60	40


Connection between the territorial development index and voters' turnout in the elections of rural municipalities in 20

Group of rural municipalities by the territorial development index	Territorial development index	Voters' turnout, %
1	1.025 – 0.431	48.9
2	0.430 – -0.164	53.0
3	-0.165 – -0.758	57.2
4	-0.759 – -1.353	59.8
5	-1.354 – -1.948	60.8

A similar situation was observed in towns and cities: in the weakest group the voters' turnout was 60.3%, in the second weakest – 55.2% but in the three strongest groups it was from 50.2% to 52.9%

Peculiarities of the territorial development index

- ◆ The main indicators, which are used for the calculation of the territorial development index, are determined by using the expert method
- ◆ The index characterises the level of development of a territory in comparison with other territories in the corresponding year
- ◆ The index does not show the process of development of the territorial unit in comparison with previous years
- ◆ The mean value of each component – the main indicator and the synthetic indicator – the territorial development index is zero
- ◆ About a half of the territorial units has positive values of the territorial development index and the other half has negative values
- ◆ As additional synthetic indicators, which show the process of development, could be used the modified chain development index and the base development index. Then instead of the mean and standard deviation values in the corresponding year, the mean and standard deviation values in the previous year (the chain development index) or in the base year (the base development index) are used



**Thanks a lot for your
attention!**