SYNERGY OF OLD AGE PENSIONS, BENEFITS AND ECONOMIC ACTIVITY IN LATVIA

Baiba Mistre[1+], *Mg. oec.*; **Aina Muska**[2], *Dr. oec.*
[1] Latvia University of Agriculture, Department of Accounting and Finances
[2] Latvia University of Agriculture, Department of Entrepreneurship and Management

Abstract. The paper examined the legal aspects of old age pension and state social insurance benefits, analysed the economic activity of Latvia's municipalities and cities in 2011 by using cluster analysis as well as examined the interaction between the economic activity of a territory and the average amount of pension and benefits. The research hypothesis: a synergy exists in Latvia between the average amount of old age pension and state social insurance benefits and the economic activity in Latvia.
The analysis of Latvia legal acts showed that the basic factor determining the average amount of social insurance benefits and pension was the average wage subject to insurance contributions. According to the cluster analysis results, a monocentric development trend is specific to Latvia, which leads to significant differences between Latvia's capital city Riga and other municipalities and cities. Latvia's territory may be classified by economic activity into three categories: (1) the country's capital city Riga; (2) cities, except Riga, and large, in terms of territory, municipalities; (3) small, in terms of territory, municipalities. The analysis of interaction showed that a synergy existed between economic activity as well as the proximity of a municipality to the capital city and the average amount of old age pension, unemployment benefit, sickness benefit, maternity, paternity, and parental benefits.
Key words: old age pension, state social insurance benefits, economic activity, synergy.
JEL code: G22, G29, I39, A12, R11

Introduction

In avoiding social tension and increasing the welfare of society, an essential role is played by the capacity and sustainable development of social insurance system, which supports individuals in the case of social risk and provides the disabled with funds for existence.

The authors of the paper (2011; 2011a; 2011b) have previously conducted a research on synergy between economic activity and the average amount old age pension and social insurance benefits. The research on synergy between the average amount of state social insurance benefits and economic activity was performed for a territorial division into 26 districts (Latvia's administrative and territorial division until the middle of 2009). It showed that there was a synergy among the average amount of unemployment, maternity, paternity, and parental benefits as well as the average amount of sickness benefit, the proximity of a district to the capital city as well as the economic activity in districts. The authors identified a synergy also in a research on the average amount of old age pension and economic activity in Latvia's municipalities. Yet, the previous research presented the situation that existed in Latvia in 2008 and 2009 when there was an economic crisis, which decreased economic activities and increased expenses of the social insurance special budget. Besides, significant amendments were made in 2009 in Latvia legal acts regulating its social policy, which affected the average amount of pension and social insurance benefits.

The change in Latvia's administrative and territorial division in the middle of 2009 (the transition from districts to amalgamated municipalities) as well as a gradual improvement in the economic situation in the country motivated the authors to carry out repeated research. "Report on the Economic Development of Latvia" of the Ministry of Economics (2012) states that Latvia's GDP continued stable growth in 2011 and exceeded the level of 2010 by 5.5% as well as the situation in the labour market improved – employment increased, unemployment gradually decreased, and the number of vacant jobs increased (the number of employed individuals rose 2.5% in 2011 compared with 2010). Within a year, the unemployment rate significantly fell. On average, it was, 16.2% in 2011, i.e. 3.3 percentage points less than in 2010.

The year 2010 was the first year after the administrative and territorial reform when Latvia changed its administrative division from more than 500 two-level municipalities to one-level municipalities; initially, there were 118 municipalities, but since 2011 – 119 (9 cities: Riga Daugavpils, Jekabpils, Jelgava, Jurmala, Liepaja, Rezekne, Valmiera, and Ventspils and 110 municipalities) (State Regional Development..., 2012).

The report „State Regional Development 2011" (2012) states that Latvia's 110 municipalities "**are very diverse in terms of** area, number of residents, population density, economic specifics, and **development level**".

Owing to the limitations set for the paper, the authors will examine synergy between economic activity and the average amount of old age pension and state social insurance benefits.

Hypothesis: a synergy exists in Latvia between the average amount of old age pension and state social insurance benefits and the economic activity in Latvia.

[+] Corresponding author. Tel.: +37163024214; fax: +37163026980
E-mail address: baiba.mistre@llu.lv

The **research aim** is to identify synergy between the average amount of old age pension and state social insurance benefits and the economic activity in Latvia.

Toa achieve the research aim, the following research **tasks** were set:

1. to examine the legal aspects of old age pension and social insurance;
2. to analyse the economic activity of Latvia's municipalities by using cluster analysis;
3. to compare the average amount of old age pension and social insurance benefits with the cluster analysis results.

The present research is based on the monographic method, analysis and synthesis, deduction and induction, multifactor statistical analysis, and economic statistics analysis.

Legal acts of the Republic of Latvia, the data of the Central Statistical Bureau (CSB), the State Social Insurance Agency (SSIA), and the State Regional Development Agency as well as the findings of the research carried out in Latvia that is related to the field researched by the authors.

Research novelty – the authors have researched synergy between the economic activity of a territory and the average amount of pension and benefits in a long-term.

Research results and discussion

1. Legal aspects of state pensions and social insurance benefits

A social security system is established in any country, which, to a great extent, depends on the social and economic situation as well as on the social policy implemented in it. In Latvia, its social security system includes state social insurance, social benefits, social assistance, and social services.

In **Latvian Strategic Development Plan 2010-2013 (2010)**, long-term challenges are set (until 2020), and one of the key challenges is to make the government's social budget sustainable, given the problem of the population aging. The key priorities of government policy regarding social security are employment and social assistance, the implementation, improvement, and control of an active labour market policy, and the reduction of regional differences.

In accordance with the "Law on State Social Insurance" (1997), the goal of the social insurance system is to insure individuals and their dependent individuals against the risk of losing their earned income due to sickness, disability, maternity, unemployment, old age, accidents at work or occupational disease as well as against additional expenses related to child care and the death of insured persons or their dependents.

Latvia's social insurance includes state pensions and state social security benefits. State pensions are classified as follows: old age pension, survivor's pension, disability pension, and service pension. State social insurance benefits, in their turn, are classified as follows: unemployment benefit, maternity benefit, paternity benefit, parental benefit, sickness benefit, and funeral allowance.

Old age pensions are granted in accordance with the Law "On State Pensions" (1995). State social security benefits are granted in accordance with the laws "On Insurance in Case of Unemployment" (1999), "On Maternity and Sickness Insurance" (1995), and "On Compulsory Social Insurance in Respect of Accidents at Work and Occupational Diseases" (1995).

In accordance with the "Law on State Social Insurance", a person is socially insured for occupational accident insurance, insurance against unemployment, invalidity insurance, maternity and sickness insurance and parents' insurance, and he or she must make mandatory contributions (regarding thereof) from the day when such person has acquired the status, except for the status of a self-employed person. A person is socially insured for pension insurance if mandatory contributions have been actually made.

The right to a **state social insurance pension** in accordance with the "Law on State Social Insurance" is held by persons living in the territory of Latvia who were subject to the State mandatory pension insurance scheme.

The amount of a state pension is dependent upon the length of period of insurance, which includes counting of months in which insurance contributions were made.

Women and men who have reached the age of 62 years and whose length of period of insurance is not less than 10 years have a right to an old-age pension in Latvia for the period 2008-2012. To maintain the social security system in a long-term, the age upon which a person has a right to a pension will be gradually increased from 2014 in accordance with the amendments to the Law "On State Pensions". From 1 January 2014, it will be 62 years and three months, while from 1 January 2025 – 65 years. The length of insurance period needed to receive a pension will be significantly increased – it will be 15 years in the period 2014-2024 and 20 years in 2025.

To maintain the social security system sustainable in situations of economic crisis in Latvia, limits were set for the amount of unemployment, sickness, maternity, paternity, and parental benefits for the period 2010-2014 – LVL 11.51 per calendar day and a 50% deduction was imposed on the amount exceeding this rate. From 2013, the limit on the amount of maternity, paternity, and parental benefits was increased to LVL 23.02 per day (Law on the ..., 2009).

In accordance with the law "On Unemployment Insurance" (1999), an **unemployment benefit** is granted to a person whose length of insurance period is not less than one year, if the mandatory state social insurance payments for unemployment have been made or had to be made for such person for not less than nine months during the time period of the last 12 months prior to the day when the status of an unemployed person was obtained.

From 2013, the length of the period for receiving an unemployment benefit does not depend on the length of service of an unemployed person. For all unemployed persons, the length of period for paying an unemployment benefit is nine months, and the amount of benefit depends on the length of unemployment: 100% of the granted amount of unemployment benefit for the first three months, 75% of that amount for the following three months, and 50% for the last three months.

In accordance with the law "On Maternity and Sickness Insurance" (1995), a **maternity benefit** is granted and paid for the entire pregnancy leave (56 days) and the entire childbirth leave (56 days) if a woman is absent from work and thereby loses income to be gained from paid work or if a self-employed woman loses income.

A woman whose pregnancy-related medical care was commenced at a medical prophylactic institution up to the 12th week of pregnancy and was continued during the entire period of pregnancy is granted a benefit for a 14-day-long additional leave, which is added to the maternity leave.

A woman is granted a benefit for a 14-day-long additional leave due to pregnancy or childbirth complications, or complications during the period following childbirth as well as in cases where two or more children were born; such leave is added to maternity leave.

A **paternity benefit** is granted and disbursed to the child's father for *ten calendar days* of the leave granted owing to the birth of the child.

From 2010, a maternity and paternity benefit is granted in an 80 per cent amount of the average wage of the benefit recipient that is subject to insurance contributions. Before 2010, a maternity benefit was granted in a 100 per cent amount of the average wage of the benefit recipient that is subject to insurance contributions. A paternity benefit, in its turn, was granted in a 100 per cent amount only in 2009, thus stimulating the engagement of fathers in caring for their newborn children (On Maternity and..., 1995).

A **parental benefit** is granted and paid to a socially insured person that *nurses his/her child aged less than one year* if this person is employed on the day of granting the benefit and is on leave for child care, or does not gain income from self-employment owing to child care.

A **sickness benefit** is granted if a person is absent from work and thereby loses paid labour income, or if a self-employed person loses income owing to the following reasons: loss of capacity for work due to sickness or injury; a need to receive medical assistance of therapeutic or prophylactic nature; isolation is necessary due to quarantine; treatment in a medical treatment institution during the period of recuperation after a sickness or injury, if such treatment is required in order to restore capacity for work; and nursing of a sick child aged up to 14 years and/or prosthetics or orthotics in a hospital.

From 2009, a sickness benefit is granted and disbursed for the time period from the 11th day of incapacity for work until the day the capacity for work is restored, but not longer than for 26 weeks, counting from the first day of incapacity for work if incapacity is continuous, or not longer than for 52 weeks in a period of three years if incapacity for work recurs with intervals. A sickness benefit in the event of taking care of a sick child under 14 years of age is granted and paid for a period from the first day of incapacity for work until the 21st day of incapacity for work. A sickness benefit is granted in an 80 per cent amount of the average wage of the benefit recipient that is subject to insurance contributions. (On Maternity and ..., 1995).

A **funeral allowance** is granted to a socially insured person in case of death of this person or a dependant family member of this person.

2. Assessment of the economic activity of Latvia

To assess economic activity in the cities and municipalities, the authors, based on various indicators, performed a cluster analysis. For the cluster analysis, 15 statistical indicators were selected based on the report „Development of Regions in Latvia 2011" and studies by J. Paiders (2007):

1. number of residents (thou.);
2. change in the number of residents (%);
3. population density (people per 1km^2);
4. number of employees at the main job (thou.);
5. average net monthly wage in the public sector (LVL);
6. number of businessmen per 1000 residents;
7. personal income tax (hereinafter – PIT) revenues (mln. LVL);
8. PIT revenues in local government budgets per capita (LVL);
9. revenues of the government basic budget (mln. LVL);
10. total revenues of the government basic and special budgets (mln. LVL);
11. demographic burden;
12. rate of unemployment (%);
13. number of economically active market-sector statistical units per 1000 residents;
14. revenues of the government basic budget per capita (LVL);
15. revenues of the government special budget per capita (LVL).

For comparison of national and regional economic development in Latvia, the following indicators were also used: gross domestic product (GDP), gross value added, and non-financial investment. Since GDP data, broken down by regions, are published with a large time delay, J. Paiders (2007) recommends municipal tax revenues per capita as a "measure of regional development level" that could replace GDP per capita, as this indicator may be obtained earlier than the other one for all Latvia's administrative units. Therefore, the authors replaced the GDP indicator with PIT revenues in municipal budgets in their research. Data on the net monthly wage in the private sector by municipality are not available due to confidentiality; thus, these data are not included in the present research. Updated data (for 2011) on gross value added and non-financial investment by city and municipality were also unavailable.

Statistical indicators regarding Latvia's all 110 municipalities and 9 cities were analysed, and they reflected the situation of 2011.

The analysis of variance (ANOVA), which is integrated in the statistical data processing module "Cluster Analysis" of SPSS for Windows, showed that all the selected indicators, except five – demographic burden, unemployment rate, number of economically active market-sector statistical units per 1000 residents, revenues of the government basic budget per capita, and revenues of the government special budget per capita – were statistically significant for grouping the municipalities and cities into clusters. Their significance level did not exceed 0.05. The authors omitted the statistically insignificant indicators for further analysis.

The cluster-to-cluster distances obtained in the analysis indicate that there is a relationship among the

Table 1

Average values and ranks of clusters in the cluster analysis of economic development in Latvia in 2011

Indicators	Clusters								
	1.	**2.**	**3.**	**4.**	**5.**	**6.**	**7.**	**8.**	**9.**
Number of residents, thou.	699.2	82.4	59.9	101.1	40.2	19.8	28.6	9.4	4.2
Rank	**1**	**3**	**4**	**2**	**5**	**7**	**6**	**8**	**9**
Change in the number of residents, %	-3.4	-3.7	-1.2	-5.6	-2.7	2	-4.1	0.2	-5.9
Rank	**5**	**6**	**3**	**8**	**4**	**1**	**7**	**2**	**9**
Population density, people per 1km^2	2300.0	1351.0	805.5	1395.8	382.7	54.7	463.5	35.0	12.6
Rank	**1**	**3**	**4**	**2**	**6**	**7**	**5**	**8**	**9**
Number of employees at the main job, thou.	313.9	26.7	14.3	32.3	11.2	4.5	7.5	1.8	0.7
Rank	**1**	**3**	**4**	**2**	**5**	**7**	**6**	**8**	**9**
Average net monthly wage in the public sector, LVL	407	300	288	269	299	292	276	283	258
Rank	**1**	**2**	**5**	**8**	**3**	**4**	**7**	**6**	**9**
Number of businessmen per 1000 residents	57.0	25.8	25.4	21.5	25.3	23.4	24.5	20.7	13.9
Rank	**1**	**2**	**3**	**7**	**4**	**6**	**5**	**8**	**9**
PIT revenues in local government budgets per capita, LVL	377.31	250.80	343.61	219.99	354.06	272.29	237.76	264.03	188.97
Rank	**1**	**6**	**3**	**8**	**2**	**4**	**7**	**5**	**9**
Revenues of the government basic budget, mln. LVL	460.0	48.9	38.6	59.8	29.5	12.1	19.5	5.8	2.5
Rank	**1**	**3**	**4**	**2**	**5**	**7**	**6**	**8**	**9**
Total PIT revenues, mln. LVL	264.0	20.7	20.5	22.2	14.3	5.3	6.7	2.4	0.8
Rank	**1**	**3**	**4**	**2**	**5**	**7**	**6**	**8**	**9**
Total revenues of the government basic and special budgets, mln. LVL	500.0	50.0	40.0	60.0	30.0	10.0	20.0	6.0	3.0
Rank	**1**	**3**	**4**	**2**	**5**	**7**	**6**	**8**	**9**
Total rank	**14**	**34**	**38**	**43**	**44**	**57**	**61**	**69**	**90**

Source: authors' construction based on the CSB and State Regional Development Agency data, 2012

clusters. The clusters being closer to each other can move to another level if a new distribution of them is performed, and they can create new clusters or cluster groups.

In clustering the statistical data, several numbers of clusters were considered by the authors. Latvia's territorial division by economic development into nine clusters was the most appropriate option, as the number of Latvia's municipalities and cities was steadier with such a distribution into clusters.

In addition to the clustering results, the clusters were ranked based on all the statistically significant indicators to determine the overall development level of each cluster in relation to the other clusters (Table 1).

The ranking showed that the highest economic activity in Latvia was observed for **Cluster 1** that included only the capital city **Riga**. All the analysed indicators were ranked in the highest first position, except one indicator – change in the number of residents (5th position).

The number of residents changes owing to both vital statistics and international and domestic migration. According to the Population Censuses of 2000 and 2011, in 2011, compared with 2010, the largest decrease in the number of residents was observed for Latgale region (21.0%), a slightly smaller decrease was observed in Vidzeme region (17.4%) and Kurzeme region (16.0%), a smaller decrease was in Zemgale region (13.2%), while the smallest decrease was observed in Riga planning

region (8.4%) (State Regional Development..., 2012). Among the cities, the fastest decrease in the population occurred in Daugavpils (19.1%) and Rezekne (17.7%). The smallest decrease was observed for Jelgava city (6.6%). A smaller decrease, compared with the average indicator in the country (13.0%), except Jelgava, was in Jurmala (9.0%), Valmiera (9.5%), Jekabpils (11.7%), and Ventspils (12.0%), followed by Riga city (14.0%). A positive change in the number of residents was observed only for municipalities located near Riga. In the period 2007-2011, the greatest increase in the number of residents was in Marupe municipality (40.1%) and Garkalne municipality (31.2%) (State Regional Development..., 2012). The researche carried out by A. Baula, Z. Krisjane (2011) and M. Berzina (2011) also confirmed that a very intensive migration existed towards Pieriga region.

Cluster 2 included the city of Liepaja. The majority of the indicators specifying economic activity were ranked in the third position. Two indicators – "net average monthly wage in the public sector" and "number of businessmen per 1000 capita" – were ranked in the second position. The average values of the statistically significant indicators – "change in the number of residents" and "PIT revenues per capita" were ranked in the sixth position.

Liepaja is the third largest city, in terms of population, with 82413 residents in the beginning of 2012, which reduces the statistically significant indicator "PIT revenues per capita". According to the Population Censuses of 2000 and 2011, Liepaja is ranked in the third position among the cities with the fastest decreasing population. The change in the number of residents in Liepaja (14.4%) was higher than on average in the country (State Regional Development..., 2012). Cluster 2 has the third highest population density.

After comparing the economic activity indicators and the total ranks of Clusters 1 and 2, one can conclude that a significant difference exists between them, which points to the fact that economic activity in the capital city is significantly higher than in Liepaja and other cities and municipalities of Latvia.

Cluster 3 included two cities – Jelgava and Jurmala. The majority of the economic activity indicators were ranked in the fourth position. The average values of three indicators – "change in the number of residents", "number of businessmen per 1000 capita" and "PIT revenues per capita" – were ranked in the third position. The average value of one statistically significant indicator – "net average monthly wage in the public sector" – was ranked in the fifth position.

As it was stated before, the change in the number of residents in the cities included in this cluster was lower among the cities.

Cluster 4 included only one city – Daugavpils. The majority of the economic activity indicators were ranked in the second position. In the lowest positions, the following indicators were ranked: "number of businessmen per 1000 capita" (7^{th}), "change in the number of residents" (8^{th}), "net average monthly wage in the public sector" (8^{th}), and "PIT revenues per capita" (8^{th}). The large number of residents living in Daugavpils city reduced the indicator "PIT revenues per capita". Daugavpils is the second largest city in terms of population with 101057 residents in the beginning of 2012. Among the cities in 2011, the lowest PIT revenues per capita were in Daugavpils. In 2011, the PIT revenues per capita in the municipal budget of Daugavpils amounted to LVL 219.99, which comprised 64% of the average indicator for the cities and 75% of the average indicator for the country (State Regional Development..., 2012). On the contrary, the indicator "total PIT revenues" was ranked in the high second position. The low net monthly wage may be explained by the fact that the city is located in Latgale region where the lowest wage level is observed in the country (State Regional Development..., 2012).

According to Table 1, in general, the large population of Daugavpils city determined its inclusion in Cluster 4. If the indicators per capita or per 1000 capita were not examined in the cluster analysis, Daugavpils city would be ranked in the second position.

Cluster 5 included Ventspils city and Ogre municipality. The majority of the indicators were ranked in the fifth position. Since the number of residents is small in Ventspils city and Ogre municipality, compared with the previously analysed administrative units, the indicator "PIT revenues per capita" was ranked in the second position. Among the cities in 2011, the highest personal income tax revenues per capita, on average, were collected in the municipal budget in Ventspils city (LVL 394.4 or 115% of the average indicator for municipalities and 135% of the average for the country) (State Regional Development..., 2012). Given the location of the territories of the cluster – Ogre municipality is in Pieriga region and Ventspils is a seaport like Liepaja, the net average monthly wage in the pubic sector was ranked in the third position. It was only LVL 1 lower than the respective indicator in Cluster 2. The advantageous location of the territories contributed to a quite small change in the number of their residents.

Cluster 6 included part of the neighbouring municipalities of Riga (municipalities of Kekava, Marupe, Olaine, Sigulda, Salaspils, Jelgava, Stopini, Bauska, and Dobele) and ones of the largest municipalities in terms of territory (Ventspils, Limbazi, Valka, Aluksne, Gulbene, Balvi, Daugavpils, and Kraslava).

In Cluster 6, six of ten indicators were ranked in the seventh position. The indicator "change in the number of residents" was ranked in the first position; its average value was 2%. The average value of the indicator "net average monthly wage in the public sector" was ranked in the fourth position, and the authors explain it by many municipalities located next to Riga, as a part of the population of these municipalities have jobs in Riga, which increases the average wage level. The indicator "number of businessmen per 1000 capita" showed that business activity was not high there.

Cluster 7 included three cities – Rezekne, Valmiera, and Jekabpils, and, in terms of territory, large municipalities: Kuldiga, Madona, Rezekne, Saldus, Talsi, Tukums as well as Cesis. The majority of the indicators were ranked in the sixth and seventh position. Business activity was medium in the territories of the cluster.

The smallest municipalities, in terms of territory, were included in Clusters 8 and 9.

Cluster 8 included 29 municipalities of Latvia. The cluster included 11 municipalities of Pieriga region: Adazi, Babite, Carnikava, Engure, Garkalne, Ikskile, Incukalns,

Kandava, Lielvarde, Salacgriva, and Saulkrasti, six municipalities of Zemgale region: Aizkraukle, Auce, Iecava, Krustpils, Ozolnieki, and Vecumnieki, five municipalities of Latgale region: Dagda, Ilukste, Livani, Ludza, and Preili, four municipalities of Vidzeme region: Amata, Koceni, and Priekuli, and three municipalities of Kurzeme region: Aizpute, Grobina, and Priekule.

In Cluster 8, the majority of the indicators were ranked in the eighth position. A positive change in the number of residents was specific to Cluster 8.

Cluster 9 included 56 municipalities of Latvia from all its regions – 16 municipalities of Vidzeme: Ape, Beverina, Burtnieki, Cesvaine, Ergli, Jaunpiebalga, Ligatne, Lubana, Mazsalaca, Naukseni, Pargauja, Rauna, Rujiena, Strenci, Varaklani, and Vecpiebalga, 11 municipalities of Kurzeme: Alsunga, Broceni, Dundaga, Durbe, Mersrags, Nica, Pavilosta, Roja, Rucava, Skrunda, and Vainode, 11 municipalities of Zemgale: Akniste, Jaunjelgava, Jekabpils, Koknese, Nereta, Plavinas, Rundale, Sala, Skriveri, Tervete, and Viesite, 10 municipalities of Latgale: Aglona, Baltinava, Cibla, Karsava, Riebini, Rugaji, Varkava, Vilaka, Vilani, and Zilupe, and eight municipalities of Pieriga: Aloja, Baldone, Jaunpils, Krimulda, Kegums, Malpils, Ropazi, and Seja.

All the indicators were ranked in the ninth position, which convincingly indicates weak economic development in these municipalities.

3. Analysis of the research results

To identify the existence a synergy between the economic activity and the average amount of old age pension and social insurance benefits in Latvia, the results of the cluster analysis (the situation of 2012) were compared with the average amount of old age pension and social insurance benefits in the cities and municipalities (data of 2011).

The average amount of old age pension in Latvia's municipalities and cities, in 2011, ranged within LVL 155.00-219.00, while in the entire country it was equal to LVL 184.72 (SSIA data).

An average old age pension, which was above the average in the country, i.e. the highest in the country, was reported in economically the most advanced cities (Ventspils (Cluster 5), Jurmala (Cluster 3), Riga (Cluster 1), Valmiera (Cluster 7), Jelgava (Cluster 3)) as well as in the municipalities located close to the country's capital city in Pieriga region (Garkalne, Kekava, Carnikava, Stopini, Ikskile, Babite, Marupe, Adazi, Saulkrasti, Salaspils, Incukalns, and Sigulda), which were included in Clusters 6 and 8. An average pension, which was above the average in the country, was reported also in Aizkraukle municipality (Zemgale) included in Cluster 8 and in Cesis municipality (Vidzeme) included in Cluster 6. In Ogre municipality (Cluster 5), too, an average old age pension was above the average pension in the country (SSIA data).

Regardless of the fact, that many municipalities of Pieriga region as well as Aizkraukle municipality belonged to Cluster 8, i.e. a cluster of low economic activity, an average old age pension there was above the average pension in Latvia. The authors explain it by the fact that these municipalities are located close to the country's capital city, therefore, part of the population living there have their jobs in Riga or its vicinity where the unemployment rate is one of the lowest in the country and the level of business activities is higher. According to statistics, the average monthly wage was higher in Riga region (gross wage LVL 512 and net wage LVL 363) in 2011, while in other regions this indicator was lower by 23% and even more (State Regional Development..., 2012).

The lowest average old age pension (less than LVL 160) was mainly in small, in terms of territory, Latgale region's municipalities of Cluster 9 (Cibla, Rugaji, Vilaka, Baltinava, and Aglona) and in one small Zemgale region's border area municipality – Rundale (Cluster 9) (SSIA data).

The average pension ranged within LVL 160.01-165.00 mainly in Latgale region's municipalities (Karsava, Dagda, Zilupe, Riebini, Varkava, Vilani, and Livani) and Zemgale region's municipalities (Nereta, Krustpils, Jekabpils, Viesite, Tervete, Vecumnieki, and Jaunjelgava) of Clusters 8 and 9 as well as in large, in terms of territory, Latgale region's municipalities included in Clusters 6 and 7 (Daugavpils, Rezekne, Kraslava) (SSIA data).

In general, one can conclude that a synergy exists between the economic activity as well as the proximity of a municipality to the country's capital city and the average old age pension.

The average amount of unemployment benefit in Latvia's municipalities and cities in 2011 ranged within LVL 62.00-162.00, while in the country it was LVL 104.00 (SSIA data).

An average unemployment benefit of more than LVL 120.01, which was greater than the average in the country, was mainly reported in the municipalities of Pieriga region located close to the capital city (Stopini, Marupe, Kekava, Ikskile, Carnikava, Garkalne, Babite, Adazi, and Salaspils), which were included in Clusters 6 and 8 (SSIA data).

The average unemployment benefit within a range of LVL 105.01-120.00, which was greater than the average in the country, was reported in economically the most developed cities (Riga (Cluster 1), Jurmala (Cluster 3), Ventspils (Cluster 5), Valmiera (Cluster 7)) as well as in the municipalities in the vicinity of the capital city (Sigulda, Malpils, Incukalns, Lielvarde, Ogre, Krimulda, Engure, Ropazi, Seja, and Saulkrasti), which mainly belonged to Cluster 8 and 9, except Sigulda municipality (Cluster 6) and Ogre municipality (Cluster 5). An average unemployment benefit within a range of LVL 105.01-120.00 was also reported in three Zemgale region's municipalities (Tervete, Iecava, and Aizkraukle), one Kurzeme region's municipality (Dundaga), and one Vidzeme region's municipality – Beverina of Clusters 8 and 9 (SSIA data).

The lowest average unemployment benefit (less than LVL 75.00) was mainly reported in small, in terms of territory, Latgale region's municipalities of Clusters 8 and 9 (Aglona, Karsava, Varkava, and Livani) and Rezekne municipality (Cluster 7) as well as in two Zemgale region's municipalities of Cluster 9 – Nereta and Jekabpils (SSIA data).

In the cities – Jelgava (Cluster 3), Daugavpils (Cluster 4), Rezekne (Cluster 7) – where economic activity was high and medium, the average unemployment benefit was within a range of LVL 90.01-

105.00, in Jelgava – LVL 98.72, Daugavpils – LVL 98.24, and Rezekne – LVL 92.42 (SSIA data).

In general, one can conclude that a synergy exists between the economic activity as well as the proximity of a municipality to the country's capital city and the average unemployment benefit.

The average amount of sickness benefit in Latvia's municipalities and cities in 2011 ranged within LVL 178.20-340.21. The average sickness benefit in the country was LVL 248.41 (SSIA data).

The highest average sickness benefit (more than LVL 300.01) was in small, in terms of territory, Vidzeme region's municipalities (Ergli, Vecpiebalga, Beverina, and Lubana) which were included in Cluster 9 and in two Latgale region's municipalities – Rugaji (Cluster 9) and Balvi (Cluster 6) (SSIA data).

An average sickness benefit within a range of LVL 275.01-300.00 was reported in economically most developed cities: Riga (cluster 1), Ventspils (Cluster 5), Jurmala (Cluster 3) as well as in Pieriga region's municipalities, included in Cluster 8, located close to the capital city (Garkalne, Babite, and Carnikava) and in two Vidzeme region's municipalities: Ligatne (Cluster 9) and Koceni (Cluster 8). A high average sickness benefit was reported in small, in terms of territory, Latgale region's municipalities of Cluster 9: Vilaka, Cibla, and Baltinava (SSIA data).

The lowest average sickness benefit (less than LVL 200.00) was reported in two cities: Daugavpils (Cluster 4) and Jekabpils (Cluster 7) as well as in Latgale region's municipalities (Varkava, Livani, Daugavpils, and Kraslava), Zemgale region's municipalities (Krustpils, Sala, Auce, and Jekabpils), and small, in terms of territory, Kurzeme region's municipalities (Nica, Rucava, Alsunga, and Pavilosta) of Clusters 8 and 9 (SSIA data).

In general, one can conclude that a synergy exists between the economic activity as well as the proximity of a municipality to the country's capital city and the average sickness benefit.

The average maternity benefit in Latvia's municipalities and cities in 2011 ranged within LVL 658.97-1677.09. The average maternity benefit in the country was LVL 1171.53 (SSIA data).

The highest average maternity benefit (more than LVL 1300.00) was reported in the capital city of Riga (Cluster 1) and Pieriga region's municipalities (Marupe, Ikskile, Ropazi, Kekava, Carnikava, Stopini, Adazi, Malpils, and Babite) which were included in Clusters 6, 8, and 9. It was determined by the mobility of the population of these municipalities, which contributed to a higher wage level (SSIA data).

The lowest average maternity benefit (less than LVL 800.00) was mainly reported in Latvia's border area municipalities of Cluster 9 – four in Kurzeme region (Rucava, Pavilosta, Priekule, and Vainode), three in Zemgale region (Akniste, Nereta, and Jekabpils), one in Vidzeme region (Mazsalaca), and two in Latgale region (Zilupe, Riebini) as well as in two Pieriga region's municipalities, included in Cluster 9, located most distantly from the capital city – Jaunpils and Aloja (SSIA data).

The average paternity benefit in Latvia's municipalities and cities in 2011 ranged within LVL 65.17-190.12. The average paternity benefit in the country was LVL 123.31 (SSIA data).

The highest average paternity benefit (more than LVL 135.00) was reported in the capital city of Riga (Cluster 1) and Jurmala (Cluster 3) as well as in 11 Pieriga region's municipalities (Marupe, Kekava, Stopini, Sigulda, Babite, Ikskiles, Carnikava, Garkalne, Adazi, Malpils, and Kegums) of Clusters 6, 8, and 9, in one Vidzeme region's municipality – Pargauja (Cluster 9), and in one Latgale region's municipality – Baltinava (Cluster 9) (SSIA data).

The lowest average paternity benefit (less than LVL 85.00) was reported in seven Vidzeme region's municipalities (Lubana, Vecpiebalga, Strenci, Cesvaine, Rauna, Ape, and Varaklani), three small, in terms of territory, Kurzeme region's municipalities (Rucava, Pavilosta, and Mersrags), one Latgale region's municipality (Cibla), one Zemgale region's municipality (Sala), and one Pieriga region's municipality (Aloja) of Cluster 9 (SSIA data).

After analysing the average amount of maternity and paternity benefits in the cities, one can conclude that a high average amount of these benefits was also reported in Ventspils (Cluster 5), Jelgava (Cluster 3), and Valmiera (Cluster 7) (SSIA data).

The average parental benefit in Latvia's cities and municipalities in 2011 ranged within LVL 160.62 - 342.63. The average parental benefit in the country was LVL 294.98 (SSIA data).

The highest average parental benefit (more than LVL 300.00) was reported in the capital city of Riga (Cluster 1), Jurmala (Cluster 3), two Pieriga region's municipalities: Malpils (Cluster 9) and Marupe (Cluster 6) as well as in small, in terms of territory, Vidzeme region's municipalities (Naukseni, Cesvaine, Varaklani, Rauna, and Ergli), Kurzeme region's municipalities (Priekule, Pavilosta, Vainode, Roja, and Dundaga), one Zemgale region's municipality (Sala), and one Latgale region's municipality (Vilaka) of Cluster 9 (SSIA data).

A high average parental benefit was also reported in the city of Liepaja (LVL 299.00) included in Cluster 2, i.e. a cluster with high economic activity (SSIA data).

The lowest average parental benefit (less than LVL 195.00) was mainly reported in Latgale region's municipalities (Ludza, Preili, Baltinava, Aglona, Kraslava, and Daugavpils), small, in terms of territory, Zemgale region's municipalities (Iecava, Plavinas, and Tervete), Vidzeme region's municipalities (Koceni, Vecpiebalga, and Lubana), and Kurzeme region's municipalities (Grobina, Talsi) of Clusters 6, 8, and 9 as well as in Pieriga region's municipalities – Olaine (Cluster 6), Salacgriva (Cluster 8), and Seja (Cluster 9) (SSIA data).

In general, one can conclude that a synergy exists between the economic activity as well as the proximity of a municipality to the country's capital city and the average maternity, paternity, and parental benefit.

Conclusions, recommendations

1. The examination of Latvia legal acts showed that the basic factor determining the average amount of social insurance benefits and pension is the average wage subject to insurance contributions; thus, to ensure

and increase social security for Latvia's population, it is necessary to raise labour productivity and economic activity in the country.

2. A monocentric development trend is specific to Latvia, which leads to significant differences among Latvia's capital city Riga and other municipalities and cities. The territory of Latvia may be classified by economic activity into three categories: (1) the country's capital city Riga; (2) cities, except Riga, and large, in terms of territory, municipalities; and (3) small, in terms of territory, municipalities.
3. A synergy exists in Latvia between the economic activity as well as the proximity of a municipality to the country's capital city and the average old age pension and social security benefits.
4. The authors of the paper believe that even development of all the regions of Latvia is impossible, thus, the country's population have to migrate from economically weak or underdeveloped municipalities to economically active centres of Latvia, i.e. the cities and municipalities included in Clusters 1, 2, 3, 4, and 5 in order to raise their social security level.
5. The population of the weakly developed municipalities have to engage more in economic activities themselves, thus raising their social security level.

Bibliography

1. Available Tables on Wages and Salaries. Retrieved: http://data.csb.gov.lv/DATABASEEN/Iedzsoc/Short%20term%20statistical%20data/Wages%20and%20salaries/Wages%20and%20salaries.asp. Access: 1 December 2012.
2. Bauls, A., Krisjane, Z. (2011). Latvijas iedzivotaju starpvalstu mobilitate pec Eiropas Savienibas paplasinasanas (*Cross Border Mobility of Latvian Population after the European Union Enlargement*). Retrieved: http://www.lza.lv/LZA_VestisA/65_3-4/5_Krisjane%20un%20Bauls_iedzivotaju%20mob.pdf. Access: 12 December 2012.
3. Berzins, M. (2011). Iekszemes migracijas regionalas dimensijas Latvija (*Regional Dimensions of Internal Migration in Latvia*). Retrieved: http://www.lza.lv/LZA_VestisA/65_3-4/3_Maris%20Berzins_Iekszemes%20migr.pdf. Access: 12 December 2012.
4. Employees at the Main Job by Statistical Region, City and Country. *Table JVS071*. Retrieved: http://data.csb.gov.lv/Dialog/varval.asp?ma=jvs0071a&ti=JVS071.+EMPLOYEES+AT+THE+MAIN+JOB+BY+STATISTICAL+REGION%2C+CITY+AND+COUNTY&path=../DATABASEEN/Iedzsoc/Annual%20statistical%20data/Occupied%20jobs%20and%20job%20vacancies%20paid%20working%20hours/&lang=1. Access: 01 December 2012.
5. Latvijas Strategiskas attistibas plans 2010.–2013. gadam (*Latvian Strategic Development Plan 2010-2013*) (2010). Retrieved: http://polsis.mk.gov.lv/view.do?id=3338. Access: 12 December 2012.
6. Law on Maternity and Sickness Insurance (1995). *The Law of the Republic of Latvia.* Retrieved: http://www.likumi.lv/doc.php?id=38051. Access: 20 December 2012.
7. Law on State Pension (1996). *The Law of the Republic of Latvia.* Retrieved: http://www.likumi.lv/doc.php?id=38048. Access: 20 December 2012.
8. Law on State Social Insurance (1997). *The Law of the Republic of Latvia.* Retrieved: http://www.likumi.lv/doc.php?id=45466. Access: 20 December 2012.
9. Law *on* the Disbursement of Social Benefits in the period 2009-2014 (2009). *The Law of the Republic of Latvia.* Retrieved: http://www.likumi.lv/doc.php?id=194076. Access: 12 December 2012.
10. Law on Unemployment insurance (1999). *The Law of the Republic of Latvia.* Retrieved: http://www.vsaa.lv/vsaa/content/?lng=lv&cat=654. Access: 20 December 2012.
11. Ministry of Economics (2012) Report on the Economic Development of Latvia. Retrieved: http://www.em.gov.lv/images/modules/items/2012_jun.pdf. Access: 12 December 2012.
12. Mistre, B., Muska, A. (2011). Synergy of the Amount of Old-age Pensions and Economic Development in Latvia. *Proceeding the fifth International Scientific Conference "Rural development 2011",* Volume 5, Book 1, Aleksandras Stulginskis University. pp. 150 – 157. ISSN 1822-3230.
13. Mistre, B., Muska, A. (2011a). Synergy of the Amount of Social Benefits and Economic Activity in Latvia. *European Integration Studies.* No. 5 (2011), Kaunas University of Technology, pp. 63-71. ISSN 1822-8402.
14. Mistre, B., Muska, A. (2011b). Synergy of Recipients of State Security Benefits and Economic Development in Latvia. *Proceeding of the International Scientific Conference "Economic Science for Rural Development 2011",* No. 24: Production and Taxes. Jelgava: LLU. pp.192-203. ISSN 1691-3078, ISBN 978-9984-9997-5-3.
15. Paiders, J. (2007). The Replacement of GDP per Capita with a Different Parameter in Regional Development Level Measurements in Latvia. Retrieved: http://www.lu.lv/materiali/apgads/raksti/717.pdf. Access: 20 December 2012.
16. SSIA unpublished data
17. State Regional Development Agency (2012). Development of Regions in Latvia 2011. Riga. pp. 151-154., 157-159.