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COMPETITIVENESS OF LATVIAN AGRI-BUSINESS IN REGIONAL CONTEXT

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Abstract

There has been a significant outflow of the inhabitants from Latvia after 2004, especially from rural territory where agri-business is the main employment provider. Therefore, the paper seeks to evaluate the competitiveness of Latvian agri-business in maintaining and attracting labour force in the context of Baltic Sea region, as well as to explore the relation between migration and the competitiveness of the agri-business. The analysis of the value added and wage level shows on low competitiveness of Latvian economy, and even lower competitiveness of Latvian agri-business, which implies on especially low labour attraction level of Latvian agri-business. The available data confirm the link between the income level and the post-2004 migration in Latvia. The possibility to receive considerably higher incomes in other EU countries has contributed to the outflow of the labour force from Latvia. As the income level in agriculture is even lower than the average in the economy, the rural territory has been more affected by the outflow of the labour force.

Keywords: agri-business, international competitiveness, Baltic Sea region, value added, wage level.
JEL Classification: E24; J11; Q13.

Introduction

There has been a significant outflow of the inhabitants from Latvia in recent ten years. According to the CSB of Latvia declared emigration data, in total almost 40 thsd. persons from Latvian left the country in the period 2004-2010. However, there are opinions, that the declared emigration does not reflect all actual magnitude of the migration process taking place in Latvia. The common problem associated with the analysis of the recent migration trends is the lack of reliable data. Demographic studies (Hazans and Philips, 2010; Hazans, 2011; Skribans, 2011) show that around 200 thsd. Latvian residents have left the country in the period 2004-2010 for work in other EU countries, which had opened their labour markets.

Labour force from Latvia was quick to use the possibility to work in the United Kingdom, Ireland, Sweden, and later on also in other countries. It has been noted that during pre-accession year (2003) migrant flow from Latvia to the UK and Ireland was quite small (0.17% of the labour force in Latvia), but shortly after the accession it rose sharply, reaching 0.9% in 2004 (Hazans and Philips, 2010). The post-2004 migrant flow from Latvia to other EU countries has essentially exceeded the official calculations of the European Commission made in 2003, which predicted that the number of persons heading from Latvia to other EU countries would not exceed 25 thsd. people by 2010 (Akopova and Ruža, 2010).

Considering that the migration is particularly widespread among young people (Hazans and Philips, 2010), the magnitude of the migration is a serious threat to the economical and demographical development, as well as to the sustainability of social insurance system in Latvia (Hazans, 2010).

Similar tendencies of the outflow of the labour force were also observed in Poland and Lithuania. According to Polish researchers Kaczmarczyk and Okólski (2008) post-2004 migration from Poland can be considered as one of the most spectacular population movements in contemporary European history. It is estimated that migration from Poland rose from 1 mio in 2004 to 2.27 mio in 2007, making Poland the most important sending country in the EU at the moment (Fihel, 2008). Reports on the migration in Lithuania state that the mass emigration of Lithuanian residents was also especially large after the country joined the EU and new opportunities for legal work opened to the citizens. Almost 100 thsd. Lithuanian residents had left the country in the period 2004-2009 according to the declared emigration, with most emigrants stating that they are leaving to seek the employment abroad. However, declared migration is believed to constitute only a half of the actual emigration from the country (European Migration Network, 2010).

Other study shows that during 2004–2007, the share of population who emigrated from ES-8 countries was the largest in Lithuania, the second largest - in Poland, which was followed by Latvia and Slovakia. It has been estimated that the average yearly volume of gross emigration from the three Baltic countries after 2004 was approximately 42,300 people from Lithuania, 19,800 from Latvia and considerably lower number - 7,100 - from Estonia (Randveer and Rõõm).

The available comparative data on net migration rates showing positive trend for Sweden, Finland, Denmark, Germany and also Estonia indicate that the problem of the loss of the inhabitants was not pronounced for other Baltic See region countries in the period 2004-2010.

The process of labour migration in the EU has been widely studied within the scope of sociology and economics. Also the influencing factors and consequences have been discussed (Thaut, 2009; Baas et al., 2010). The macroeconomic factors - economic, social and labour market related aspects (economic opportunities, wage levels, level of employment and rate of unemployment) - have been named as the main factors of labour migration (SKDS, 2005; Matiušaitytė and Čiegis, 2007). Nevertheless there are only few studies and non in context of Latvia about relation between competitiveness of concrete economical sector and migration as a consequence of lack of competitiveness.

Therefore the ongoing migration processes in Latvia stimulated to propose a hypothesis that the competitiveness of Latvian economy is not sufficient in the international context. As the outflow of the inhabitants from Latvian rural area has been more significant as from urban area, and the agri-business besides public services is the main provider of the employment possibilities in rural area, agri-business (agricultural primary production and processing of agricultural products) was determined to be the object of the study, and its competitiveness – the subject. The scope of the study was also limited to the examination of the competitiveness of Latvian agri-business in the context of the Baltic Sea region, including Latvia, Lithuania, Estonia, Poland, Sweden, Finland, Denmark and also Germany.

The objective of the study is to evaluate the competitiveness of Latvian agri-business in maintaining and attracting labour force in the context of Baltic Sea region, as well as to explore the relation between migration and the competitiveness of the agri-business.

The analysis is carried out based on Eurostat and DG Agri FADN data. To analyse the data, describe and interpret the results general research methods – like the logical constructive analysis, graphical analysis and synthesis method –, and also specific methods of statistical and economic research – like correlation analysis, ranking and analysis of time series were employed during the study.

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Migration and its dependency on agri-business

One of the main factors, which influence the migration, is employment and income obtaining possibilities (Randveer and Rõõm). Agriculture is important source of employment in Latvia, accounting for 12.3 % of the total active population. Similarly, high contribution of agriculture to employment is in Poland, Lithuania and also in Estonia (although on much lower level than in other Baltic countries and Poland). In Sweden, Finland, Denmark and Germany the share of agriculture does not exceed 3.5% of the total active population. At the regional level in Latvia, the role of agriculture is even more significant – in Latgale region it accounts for 28.2% of the total active population. Furthermore, if only manufacturing sectors are considered (NACE activities under A-F, H, J), the share of agriculture increases to 20% of the total employment in Latvia on average, and even reaches 44% in rural territory.

According to the agricultural structure survey, the total number of persons engaged in agriculture in Latvia has decreased considerably since 2004 (by almost 75 thsd. or 29.2% in 2010). The decrease in the agricultural employment has contributed to the emigration from the rural territory, and it has been connected with the ongoing structural changes, with farms becoming more efficient or leaving the sector and other manufacturing sectors not offering the replacement for people in rural areas, therefore people are leaving to seek for other more gainful economic activities in other territories (including other countries).

The analysis of the post-2004 migration at Latvian region level shows its close dependency on agriculture as the employment possibility and agricultural income level. We made a ranking analysis of several migration related indicators in Latvia on NUTS 3 region level. The results are represented in Table 1. The regions for each indicator are ranged in descending order for each indicator analysed. And a shading pattern is attributed to each region. As can be seen from Table 1, the largest negative migration intensity in the period 2004-2010 was in Latgale region, which is characterized by high agricultural employment and low productivity and low income level of agricultural labour force. High proportion of agricultural employment exists also in Zemgale, but farms of that region are more specialized and market oriented, and consequently more productive and able to generate larger incomes, which makes the region more attractive as employment and living space (shown by less migration). It can also be seen from Figure 1, that regions with the most intensive migration are less densely populated, i.e., rural territory.

Regions by...					
migration intensity 2004-2010 (net migration rate to the country average)	Population density	share in the total agricultural employment	share in the total agricultural value added	value added per AWU in agriculture	share of market oriented farms (sells more than 51% of produced) from total number of farms in region
Latgale	Riga	Latgale	Zemgale	Zemgale	Zemgale
Vidzeme	Pieriga	Vidzeme	Vidzeme	Pieriga	Pieriga
Kurzeme	Zemgale	Zemgale	Kurzeme	Kurzeme	Kurzeme
Riga	Latgale	Kurzeme	Pieriga	Vidzeme	Vidzeme
Zemgale	Kurzeme	Pieriga	Latgale	Latgale	Latgale
Pieriga	Vidzeme	Riga	Riga	n.d.	n.d.

Figure 1. Regional ranging* of migration related indicators in Latvia

Source: calculations and ranging based on Eurostat, 2012, CSB of Latvia, 2012, LSIAE, 2012 data and Kaczmarczyk and Okólski, 2008 approach (*indicators are ranged in descending order)

The correlation analysis carried at the municipality level (there are 110 municipalities and 9 republican cities in Latvia), confirms quite strong negative link (R= 0.837) between the dependency on agriculture and income level, indicating that the municipalities with the highest dependency on agriculture tend to generate less income per inhabitant. The share of the agricultural employment in total active population and the average amount of individual income tax paid by the inhabitants were used for this analysis. The further analysis adds that low level of income in the municipality has influenced the outflow of the inhabitants from the municipality, as there is also quite strong correlation between the income level and the outflow measured by the net migration rate in 2004-2010 in the municipality (R=0.793).

The studies on the generation of the migration flows from Poland also state that the major factor contributing the most to the outflow of the inhabitants is their relative underdevelopment. These regions display relatively low economic participation rate and a high proportion of households living mainly on social benefits or pensions. It has also been noted that in the largest part of the regions with the highest migration intensity the residents of rural areas outnumber the residents of urban areas, and large part of the population live on technologically primitive family plots of land (Kaczmarczyk and Okólski, 2008).

Similar conclusions can be found about the regional development of Lithuania. Koluģlu (2008) has discovered that in Lithuania in 2001–2007 the net migration was more active from the regions with relatively moderate and low income level and relatively lower population density, some of these regions can be considered as being agricultural. Also Šileika and Adriušaitiene (2006) have found the correlation between the migration and average monthly gross wage and a proportion of rural population (where agriculture is important sector of employment) in the total number of the population in different regions of Lithuania.

According to Halhead (2006), Estonia experienced this process ten years earlier. During its early years of independence, in the early 1990`s Estonia reported a loss of approximately three-quarters of its agricultural jobs, which contributed to the depopulation of rural communities (Halhead, 2006).

Agri-business competitiveness

To evaluate the competitiveness of Latvian agri-business in the context of the Baltic Sea region, the value added was analysed as it represents the resources which are available for the agri-business enterprises for the compensation of labour force and other factors of production (i.e., incomes for owners of factors of production like rent for land owners and others) as well as for investments in the further development. To compare the competitiveness of the agri-business enterprises in maintaining the existing and attracting new qualified labour force, the compensation for labour force was also analysed.

The analysis of the value added indicators of agriculture in the Baltic Sea region countries shows on low competitiveness of Latvia (see Figure 2). Despite the growth since 2004, the value added at producer prices per AWU (annual work unit -1840 working hours in a year) in Latvia is the lowest among the

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analysed countries and substantially lags behind the highest value (Denmark). Low competitiveness of agriculture is also typical for other new EU member states – Poland, Lithuania and also Estonia (although, it does not fall far behind the Finnish level). The support to production has contributed to obtaining higher value added at factor costs per AWU, which is about two times the value added at producer prices in Latvia, and falls between the indicators of Poland and Lithuania. But still there is a clear distinction between group of countries consisting of Denmark, Germany, Sweden and Finland and the other group formed by the new EU member states, with Estonia being at the top, but Poland and Latvia – at the bottom of the group.

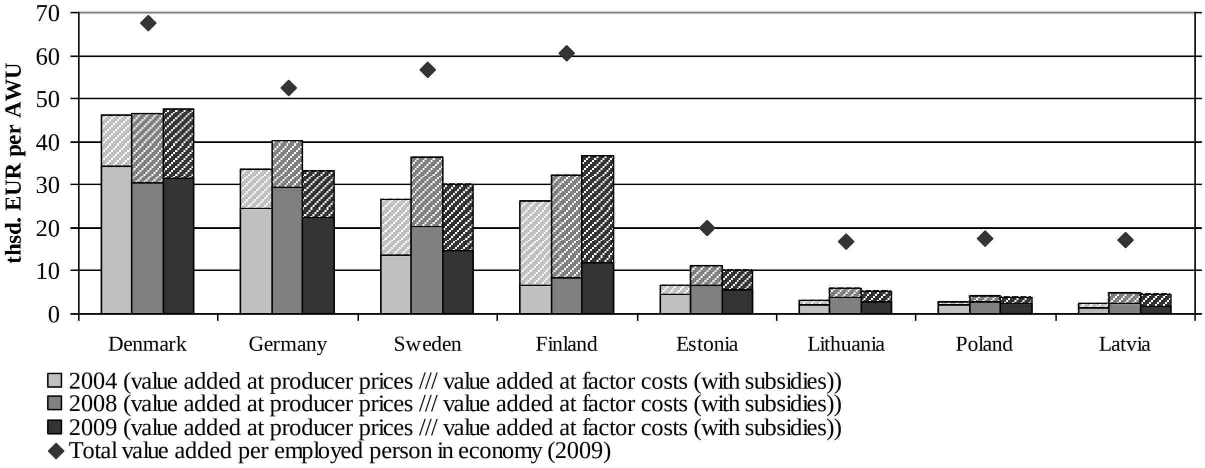

Figure 2. Value added indicators of agriculture in the Baltic Sea region countries in 2004-2009
Source: calculation based on Eurostat, 2012.

The competitiveness of Latvian agriculture is low also in the context of the national economy – the value added at factor costs per AWU was only about 30% of the total value added per employed person in Latvian economy in 2009. Though, agricultural sector in all countries is less competitive than other sectors of the national economy, and, once again – in Latvia, Poland and Lithuania the proportion of value added at factor costs per AWU as compared to the total economy are lower than in Denmark, Germany, Finland, Sweden and also Estonia. We may conclude, the agricultural sector in these countries is less competitive also within the national economy.

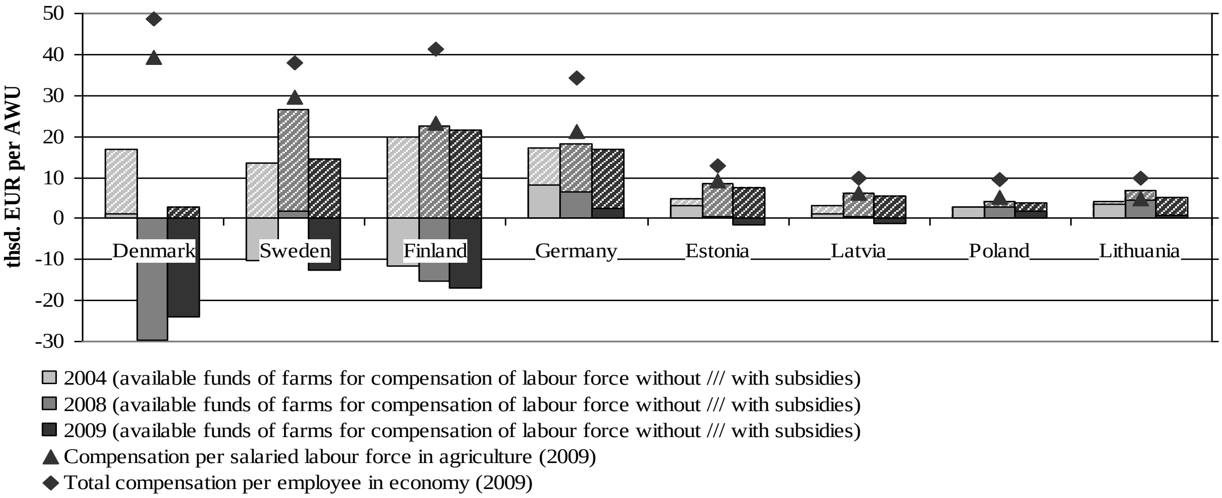

Figure 3. Compensation level of agricultural labour force in the Baltic Sea region countries in 2004-2009
Source: calculations based on Eurostat, 2012; DG Agri FADN, 2011

As the value added is the source for the compensation of labour, the countries with the highest value added per AWU tend to provide also higher wage level. Furthermore, the compensation level of salaried employees is closer to the average level in the economy than the value added, indicating on the comparatively high competition for the labour on internal labour market. Considering that salaried labour forms only a small part of the total labour on agricultural farms, the comparison of the funds of farms available for the compensation of the total labour force (which includes also family incomes) is necessary. According to the data represented in Figure 3, in general, agricultural farms are not able to ensure competitive compensation level for the family labour force in the form of family incomes after other factor costs (interest, rents, wages for hired labour and also depreciation) from the produced value added are paid. Only with production support the potential compensation level also of family labour is at the comparative level with the salaried labour. The compensation level of labour force in Latvia along with Lithuania, Poland and Estonia is among the lowest in the Baltic Sea region. Due to high interest paid Danish agricultural farms are not able to compensate all factor costs, including covering economic costs for compensation of family labour. In 2009, agricultural farms also in Latvia could not compensate all factor costs from the market revenues, which means that there were no source for potential family labour compensation.

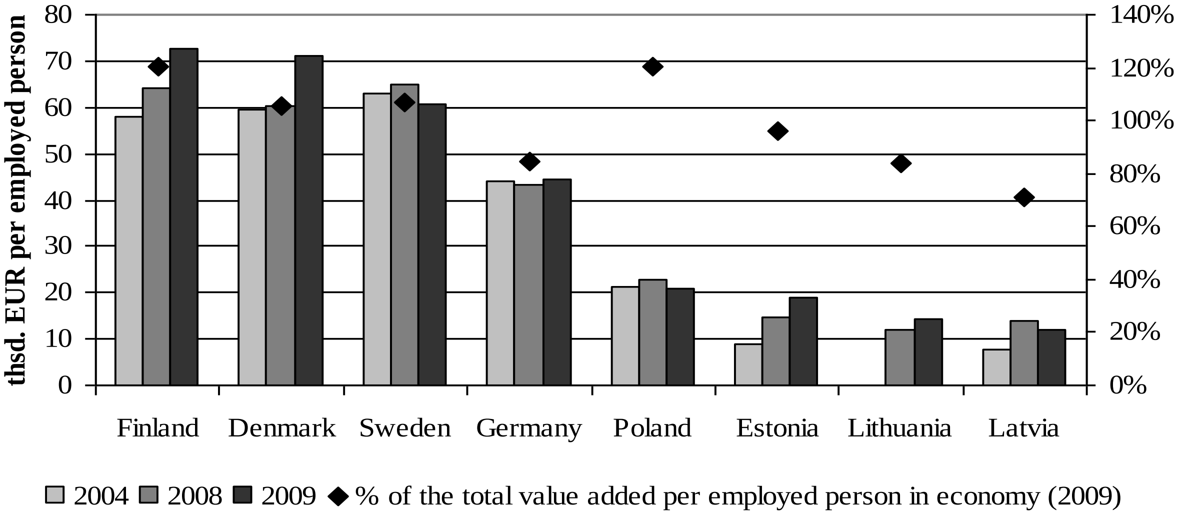

Figure 4. Value added of food industry in the Baltic Sea region countries in 2004-2009
Source: calculations based on Eurostat, 2011 (*no data for Lithuania in 2004)

Similar situation can be observed also at the secondary level, when the competitiveness is compared using indicator of the value added in food industry per employed person. In Latvia it is the lowest among the Baltic Sea countries, which is only about 20% of the level in Finland, Denmark and Sweden (see Figure 4). Low competitiveness of food industry in producing the value added per employed person is also in Lithuania, Estonia and Poland. Food enterprises in Latvia and Lithuania have also the lowest competitiveness compared to the total national economy in terms of the value added per employed person among the countries, which is below the average level in the national economy. Due to low level of value added per employed person, the remuneration level in Latvian food industry is also low (see Figure 5).

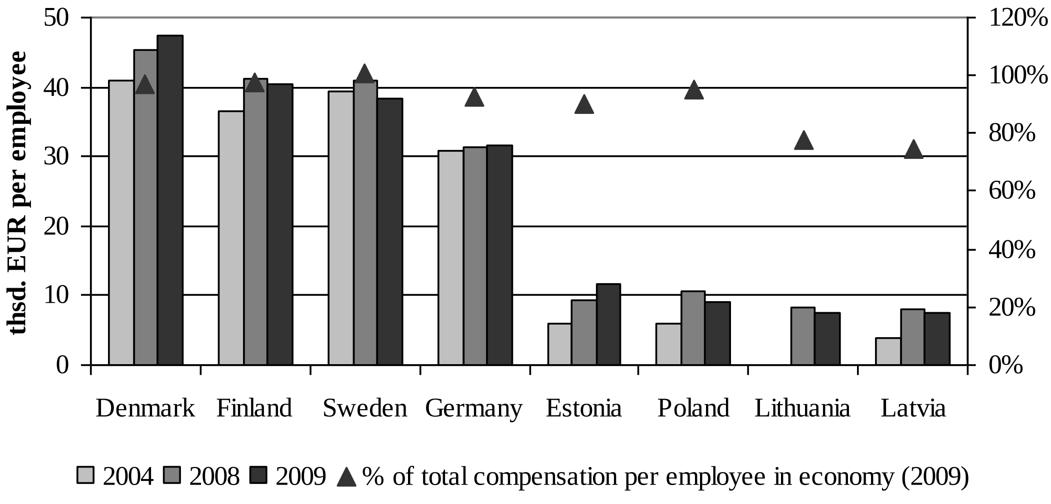

Figure 5. Compensation level of food industry labour force in the Baltic Sea region countries in 2004-2009
Source: calculations based on Eurostat, 2011 (*no data for Lithuania in 2004)

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The analysis allows to conclude, that there is low competitiveness of the total Latvian economy, and even lower competitiveness of Latvian agri-business. The low competitiveness implies on especially low labour attraction level in Latvian agri-business. The same can be attributed also to Lithuania and Poland, and to lesser extent – Estonia.

The correlation analysis at the country level also confirms that there is comparatively strong positive relation between the level of the value added in agri-business per employed person and the net migration rate in the countries (R=0.790). Therefore the authors conclude that the low income level in Latvia, Lithuania and Poland and the possibility to receive considerably higher incomes in other EU countries have contributed to the substantial outflow of the labour force from these countries. Considering that the possible family income in terms of the value added and the wage level for salaried labour force in agriculture is even lower than the average level in other economic activities in Latvia, the rural territory has been more affected by the outflow of the labour force.

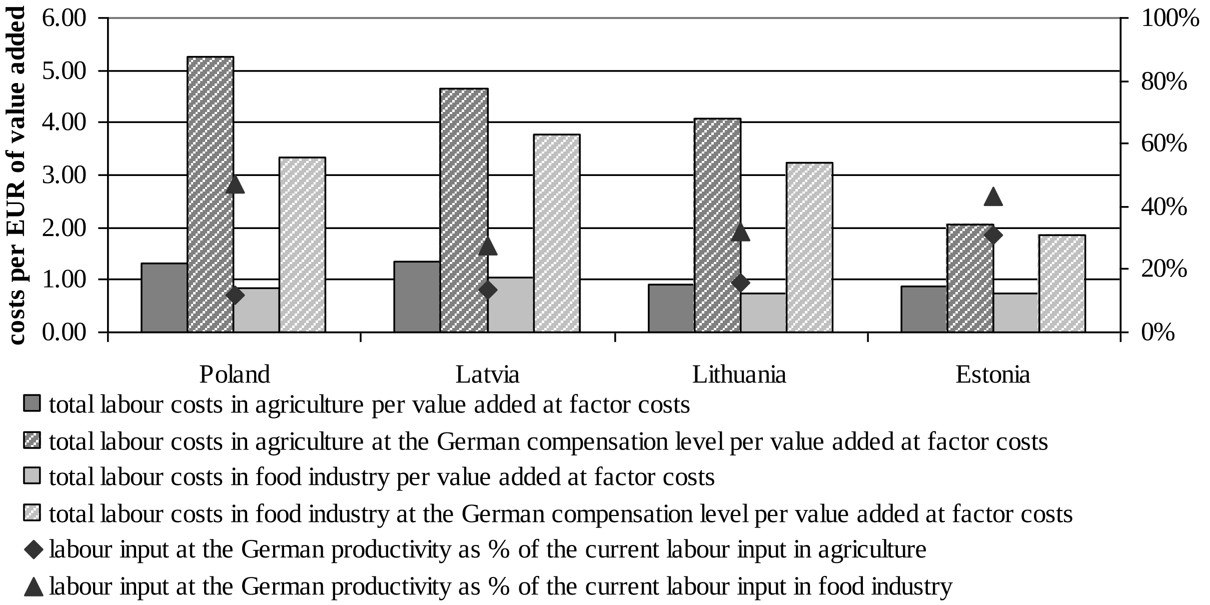

Figure 6. Labour cost and labour input indicators in Poland, Latvia, Lithuania and Estonia in 2009
Source: calculations based on Eurostat, 2011

The main reason for the low value added and wage level in Latvia is large labour input and its low productivity (see Figure 6). If the labour input in Latvia is evaluated at the average labour costs as in Germany, it exceeds the value added at factor costs more than 4 times in agriculture and also almost 4 times in food industry.

There is comparatively good position of Latvian agri-business on product market, because the net export share reaches about 25% of the total agri-business output. However, the competitiveness of Latvian agri-business on the product market is ensured by cheaper inputs, which includes cheaper labour. Such competitiveness is not sustainable, and the fact is confirmed by the mass outflow of the inhabitants, including rural people, after 2004. To improve the competitiveness of Latvian agri-business in maintaining and attracting new quality labour force, considerable improvement in labour productivity is inevitable. The same applies also to Poland, Lithuania and, in a bit lesser extent- to Estonia. Due to high employee density, the possible further expansion of Latvian agri-business will be able to absorb only a small part of the labour force released the by the productivity growth in the sector, and therefore further decrease in the labour force input is also inevitable. This stimulates to propose another hypothesis for further analysis that the growth of the agri-business competitiveness is at the same time also potential source of rural depopulation in Latvia.

Conclusions

The available comparative data on net migration rates in the Baltic Sea region countries show considerable outflow of inhabitants from Latvia, Lithuania and Poland in post - 2004.

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The link between the migration and dependency of territory on agribusiness and its low income level was found at Latvian regional level, because the municipalities with the highest dependency on agriculture tend to generate less income per inhabitant, while the low level of income in the municipality has influenced the outflow of the inhabitants from the municipality. Similar conclusions have been made also by several researchers about processes in Lithuania and Poland.

The analyses in the context of Baltic Sea region shows low international competitiveness of the total Latvian economy, while Latvian agri-business competitiveness is low the both – on international level and also at national level when the labour productivity and remuneration levels are compared.

A low level of agribusiness competitiveness both on international and national level contributes to the labour outflow, not being able to remunerate the employed people on the comparable level and therefore – to attract labour. The same can be attributed also to Lithuania and Poland, and to lesser extent – Estonia.

The continuation of the increase of the efficiency in Latvian agri-business will generate the drop in the agricultural employment also in the future; therefore the development of other manufacturing employment possibilities, preferably in rural territory, has to be considered at the state level in order to avoid further emigration, in particular from rural areas.

References

1. Akopova I. and Ruža A. (2010). The Impact of EU Post-Enlargement Labour Migration on Social Attitudes of Migrant Workers: An Example of Latvia. The International Journal of Interdisciplinary Social Sciences, Volume 5, Number 2, pp. 485 – 498.
2. Baas T., Brücker H., Hauptmann A. (2010). Labor Mobility in the Enlarged EU: Who wins, who loses. In Kahanec M., and Zimmermann K.F. (Eds), EU Labor Markets After Post-Enlargement Migration (pp. 47-70). Berlin - Heidelberg: Springer.
3. European Migration Network (2010). National report: Lithuania. Satisfying labour demand through migration.
4. Fihel A. (2008). Report of the workshop: The post-accession flows of Poles. Demographic and economic impact in Poland. Workshop held at CERI.
5. Halhead V. (2006). Rural Movements in Europe: Scandinavia and the Accession States. Social Policy & Administration, Vol. 40 Issue 6, pp. 596-611.
6. Hazans M. (2011). Latvijas emigrācijas mainīgā seja: 2000-2010. Izdevumā Zepa B., Kļave E. (red.), Latvija. Pārskats par tautas attīstību 2010./2011. Nacionālā identitāte, mobilitāte un rīcībspēja (70-91.lpp.). Rīga: LU Akadēmiskais apgāds.
7. Hazans M., Philips K. (2010). The Post-Enlargement Migration Experience in the Baltic Labor Markets". In Kahanec M. and Zimmermann K.F. (Eds), EU Labor Markets After Post- Enlargement Migration (pp. 255-304). Berlin - Heidelberg, Germany: Springer.
8. Kaczmarczyk P., Okólski M. (2008). Economic impacts of migration on Poland and the Baltic states, Fafo paper 2008:01.
9. Kuloğlu D. (2010). Regional Disparities in Lithuania. Human Resources: The Main Factor of Regional Development, Issue 2, pp. 140-158.
10. Matiušaitytė R., Čiegis R. (2007). Free movement of people: Brain Exchange or Brain Drain for New EU Members? Proceedings of the Second International Conference: Human Resources: The Main Factor of Regional Development, pp. 191-199.
11. Randveer M., Rõõm T. (2009). The Structure of Migration in Estonia: Survey-Based Evidence. Bank of Estonia Working paper series, 1/2009.
12. SKDS (2005). Sabiedrības attieksme pret darbaspēka migrāciju. Latvijas iedzīvotāju aptauja. [online] http://www.am.gov.lv/data/file/petijumi/emigracija_12_2005.pdf [08.03.2012].
13. Skribans V. (2011). Modelling of economic effects of the incoming of Latvia in the European Union. Scientific Proceedings of RTU: Economics & Business, Jun2011, Vol. 21, pp. 76-84.
14. Šleika A., Andriušaitienė D. (2006). Problems of Identifying and Regulating the Structure of the Labour Market in Depressive Lithuanian Regions. Journal of Business Economics & Management, Vol. 7, Issue 4, pp. 223-233.
15. Thaut, L. (2009) EU Integration & Emigration Consequences: The Case of Lithuania. International Migration, 2009, Vol. 47 Issue 1, pp. 191-233.