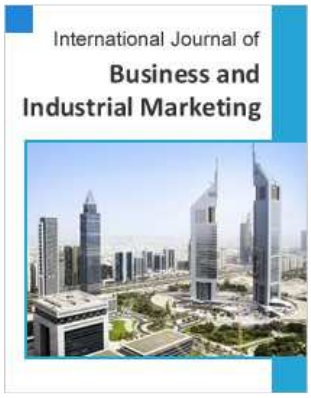
International Journal of Business and Industrial Marketing
2015; 1(4): 88-94
Published online September 30, 2015 (http://www.aascit.org/journal/ijbim)
ISSN: 2381-117X (Print); ISSN: 2381-1188 (Online)



Keywords
Baltic States,
European Union,
Construction Enterprises,
Economic Crisis

Received: August 31, 2015
Revised: September 16, 2015
Accepted: September 18, 2015

Changes Construction Enterprises Before and After the Economic Crisis in the Baltic States

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Citation

Lembo Tanning, Toivo Tanning. Changes Construction Enterprises Before and After the Economic Crisis in the Baltic States. *International Journal of Business and Industrial Marketing*. Vol. 1, No. 4, 2015, pp. 88-94.

Abstract

The purpose of this article is to analyse the changes number of construction enterprises, the situations in Baltic States before and after European economic crisis. The objective is to analyse how many construction companies survived in the Baltic States and continue with the European Union countries. We will look at how the economic crisis has affected the changes of construction enterprises. What are the lessons learned from the economic crisis? The literature review shows in short the crisis theory. Based on this and previous publications, we will offer a number of generalized suggestions.

1. Introduction

Four major sectors of the non-financial economy with the greatest gross domestic product (GDP) and the largest number of employees will be observed, these are: industry, construction, trade and transportation. Here we look at construction companies.

The construction is process of creation and construction building infrastructure or facility. *The infrastructure* is a basic facilities and systems serving country, city or region, including services and facilities necessary for its economy to function. The first houses and shelters were built by hand or with simple tools. As the city grew during the Bronze Age, class of professional masters, like bricklayers and carpenters, appeared. In the middle Ages they were organized into guilds. In the 19 century, the steam engine appeared, and then diesel and electric-powered vehicles, such as cranes, excavators and bulldozers.

Here, we analyze the changes number of construction enterprises total, by branch and by employment size class in Baltic States. The situations before the European economic crisis, during the crisis and after the crisis will be viewed before and after European economic crisis. Let us attempt to draw comparisons with EU countries, particularly in the developed economies.

The Baltic States were a half-century of Soviet-bloc countries. This will help to understand better the economic backwardness of the Western European countries.

For an introduction, let us look at the background of Baltic countries.

2. Literature Review

2.1. Baltic Tiger

Baltic countries were successful before and after the economic crisis. Hence name of the *Baltic tigers*.

A colloquial term that refers to any one of the three Baltic nations of Lithuania, Latvia and Estonia, especially in reference to their double-digit growth rates from 2000 to 2007. The Baltic tigers achieved independence in the early 1990s, following the breakup of the Soviet Union, and embarked on an aggressive program of economic reforms and liberalization from 2000 onwards. These reforms led to significant inflows of foreign investment and resulted in these nations recording the highest growth rates in all of Europe, between 2000 and 2007.

The Baltic Tigers share a number of attributes common to Tiger economies in other parts of the world. These attributes include an open economy, a highly-skilled workforce and relatively low wages. The credit crisis of 2008-2009 hit the Baltic Tigers especially hard, as they experienced the worst recessions among all nations worldwide, with gross domestic product contracting by 15 to 20%, in 2009.

After the Baltic countries had restored independence (1991), integration with Western Europe was chosen as the main strategic goal. Today they are liberal democracies and their market economies in recent years have undergone rapid expansion in the early 2000s.

All they are members of the EU, the euro area, WTO, IMF, NATO and the Schengen Area; Estonia is also OECD member.

2.2. Financial Crisis

The term financial crisis is applied broadly to a variety of situations in which some financial assets suddenly lose a large part of their nominal value. In the 19th and early 20th centuries, many financial crises were associated with banking panics, and many recessions coincided with these panics. Other situations that are often called financial crises include stock market crashes and the bursting of other financial bubbles, currency crises, and sovereign defaults. [1]

Financial crisis directly result in a loss of paper wealth but do not necessarily result in changes in the real economy. Many economists have offered theories about how financial crisis develop and how they could be prevented. There is no consensus, however, and financial crises continue to occur from time to time.

2.3. Crisis Theory

Crisis theory has been the subject of much debate within the history of political economy. It is concerned with explaining the recession, depression and business cycle in economics. We will make a short view of the financial crisis. The economic crisis has been a sharp deterioration in the economic situation.

A recession in economics is business cycle contraction it is a general slowdown in economic activity.

Recessions generally occur when there is a widespread drop in spending (an adverse demand shock). This may be triggered by various events, such as a financial crisis, an external trade shock, an adverse supply shock or the bursting of an economic bubble. Governments usually respond to recessions by adopting expansionary macroeconomic policies, such as increasing money supply, increasing government spending and decreasing taxation.

2.4. The Theoretical Bases

The theoretical bases have been brought in more detail in the authors' earlier works [2 - 18].

2.5. Methodology and Definitions

Methodology and definitions based on Eurostat's publications [2].

3. Analyses of the Baltic States Economy

The global economic power situation, the EU, United States, and China economic development we reviewed our previous article. [2]

The growth of economy is measured by gross domestic product (GDP), the Baltic States will be seen as a background. GDP based on current prices and exchange rates of the euro.

For an introduction, let us look at the economic background of Baltic countries – Estonia, Latvia and Lithuania, of the main emphasis on Estonia.

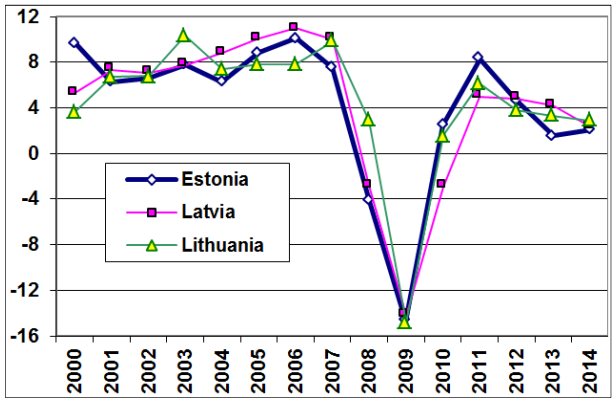


Figure 1. *Real GDP percentage change on previous year of Baltic States [19].*

Table 1. *Real GDP growth rate of CEE-8. % change on previous year [19].*

	2003	2007	2008	2009	2010	2011	2012	2013	2014
EU 28	1. 5	3. 1	0. 5	-4. 4	2. 1	1. 7	-0. 5	0. 1	1. 3
Euro 19	0. 7	3. 1	0. 5	-4. 5	2	1. 6	-0. 8	-0. 4	0. 8
Estonia	7. 5	7. 9	-5. 3	-14. 7	2. 5	8. 3	4. 7	1. 6	2. 1
Latvia	8. 6	9. 8	-3. 2	-14. 2	-2. 9	5	4. 8	4. 2	2. 4
Lithuania		11. 1	2. 6	-14. 8	1. 6	6. 1	3. 8	3. 3	2. 9

The development of the Baltic countries economy before and after the crisis was one of the fastest in the EU. The Baltic countries had the highest in GDP growth rates in Europe between 2000 and 2007.

Yet, the crisis led to a very deep recession, which was one of the greatest in the world, as well as in the EU. A larger or smaller recession took place in 2009, which is called the crisis year. In the following years economy grew.

In addition to the economic decline during the years 2008 – 2009, there was also a decline in 1999 (Estonia and Lithuania). In 2009, real GDP fell by 14.8% in Lithuania, by 14.2% in Latvia and 14.7% in Estonia.

Thus, the country covered two extremes. On the other hand, it also shows that the reforms carried out in the past were successful and established a base that enabled exiting the crisis successfully. In particular, this meant creating favourable conditions for business. Again, GDP growths from 2011 were one highest in the EC. In 2014 was GDP growth in Estonia 2.1%, Latvia 2.4% and Lithuania 2.9%. By comparison, EU28 growth was 1.3%, euro area countries only 0. 8% and Russia 0.6%. [19]

The GDP (PPP) per capita of Estonia, a good indicator of wealth, was in 2014$26, 600, after Lithuania ($26, 700) and before Portugal, Greece, Russia ($24, 800) and Latvia ($23, 900). [20]

Estonia has the lowest ratio of public debt (9.7%/GDP) and government surplus (0. 6/GDP) among EU countries at the end of 2014. [21]

We look also percentage exports and imports of goods and services of GDP. Exports was in 2013 Estonia 87.7%, Latvia 59.7%, Lithuania 86.9% and EU 28 44.9% of GDP; and imports Estonia 86.9%, Latvia 61.5%, Lithuania 85.9% and EU 28 42.1% of GDP. [22]

The Estonia's index of economic freedom was world ranked 8th in the 2015 and the second freest economy in Europe. Lithuania was 15th (6) and Latvia 37th (17). By comparison, the United States index of economic freedom was the 12th. [23]

United Nations lists the Baltic States as countries with a "Very High" Human Development Index. By 2014 HDI Report was Estonia 33, Lithuania 35 and Latvia 48. [24]

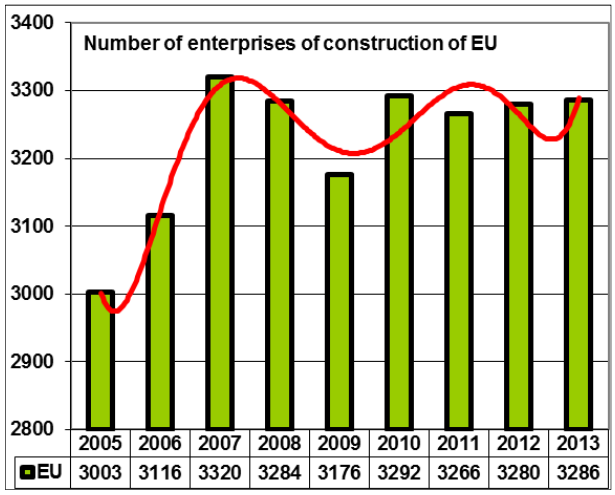
Balanced budget, almost non-existent public debt, government surplus, flat-rate income tax, free trade regime, competitive commercial banking sector, innovative e-Services and even mobile-based services are all hallmarks of Estonia's market economy.

4. Construction Enterprises of Baltic States

4.1. Total Construction Enterprises

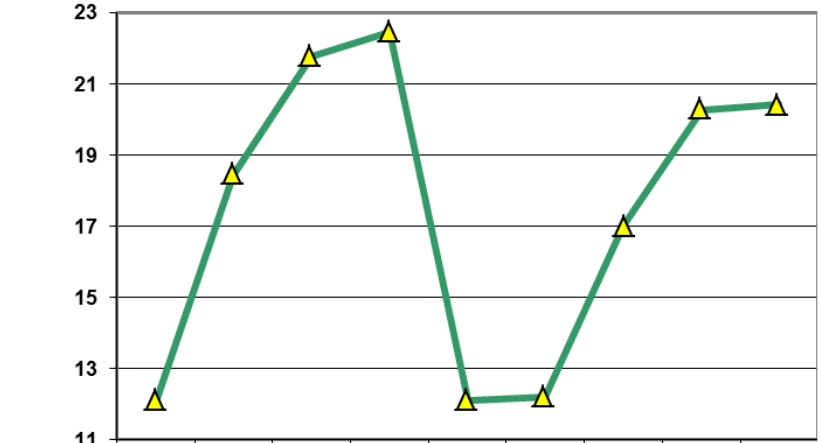
Next analyzed total EU-28 countries number of enterprises.

Complicated 6-degree polynomial ($R^2 = 0.9324$) characterized changes number of enterprises of construction in the EU. The construction boom was in 2007 and in 2009 sharp decline. In the coming years although the number of enterprises increased, but it was still lower than the 2007 record level.



	2005	2006	2007	2008	2009	2010	2011	2012	2013
EU	3003	3116	3320	3284	3176	3292	3266	3280	3286

Figure 2. *Number of enterprises of construction of EU, in thousands [25].*



	2005	2006	2007	2008	2009	2010	2011	2012	2013
Lithuania	12.073	18.405	21.753	22.429	12.112	12.201	16.995	20.242	20.43

Figure 3. *Number of enterprises of construction of Lithuania, in thousand [25].*

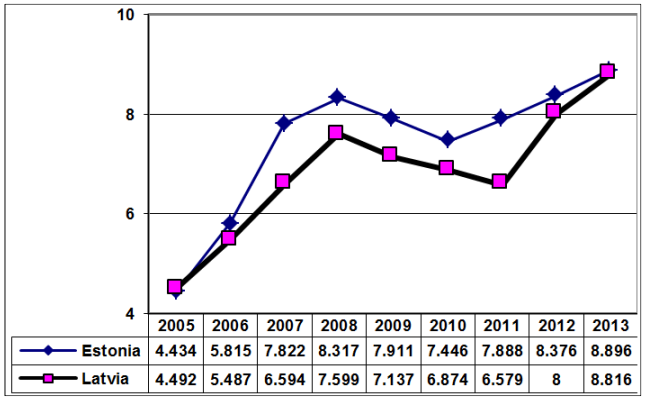


Figure 4. *Number of enterprises of construction of Estonia and Latvia, in thousand [25].*

The construction boom was in 2008 and in 2010 sharp decline. In the coming years although the number of enterprises increased. Estonia and Latvia exceeded the 2008 record level in 2012, but Lithuania has not yet reached. In 2013 the EU has not reached the level of enterprises of construction of 2007.

Table 2. *Number of enterprises of construction of Baltic countries, thousand [25].*

	2005	2008	2009	2010	2011	2012	2013
Estonia	4, 434	8, 317	7, 911	7, 446	7, 888	8, 376	8, 896
Latvia	4, 492	7, 599	7, 137	6, 874	6, 579	8, 000	8, 816
Lithuania	12, 073	22, 429	12, 112	12, 201	16, 995	20, 242	20, 430

In all three Baltic countries was great, nearly double, growth of enterprises of construction. In 2009 was in Estonia and Latvia small and in Lithuania had a big loss.

4.2. Construction Enterprises by Branch

Distribution of construction (F) by section: construction of buildings (F41), civil engineering (F42) and specialised construction activities (F43). They all have lot sections.

4.2.1. Construction of Buildings

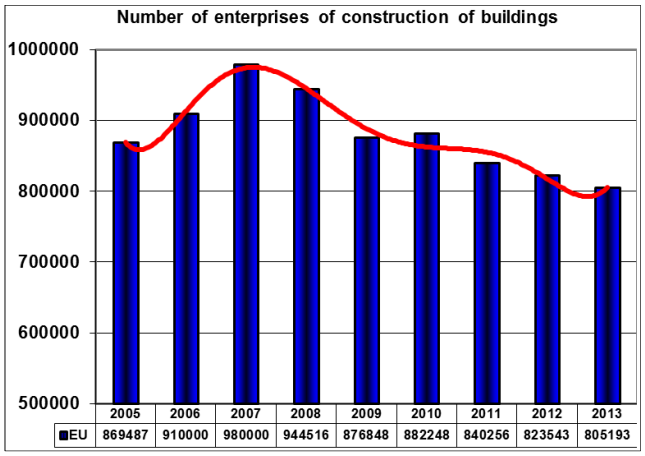


Figure 5. *Number of enterprises of construction of buildings of EU [25].*

The building is man-made structure with a roof and walls were more or less permanently standing in one place, such as a house or factory. Buildings come in a variety of shapes, sizes and functions, and have been adapted throughout history for a wide range of factors, from building materials available, to weather conditions, to land prices, ground conditions, specific purposes uses and aesthetic reasons.

The number of enterprises of construction of buildings in EU was significantly reduced after the building boom the level in 2013 was only 82. 2% from the record level of 2007.

The number of enterprises of construction of buildings in Spain and Italy was many times larger than it are in France, Netherlands and the UK. In France and Netherlands was great rise and in Spain, Italy and UK small loss.

In Germany had four years decline, but since 2012 restored former level. In other countries was two times growth.

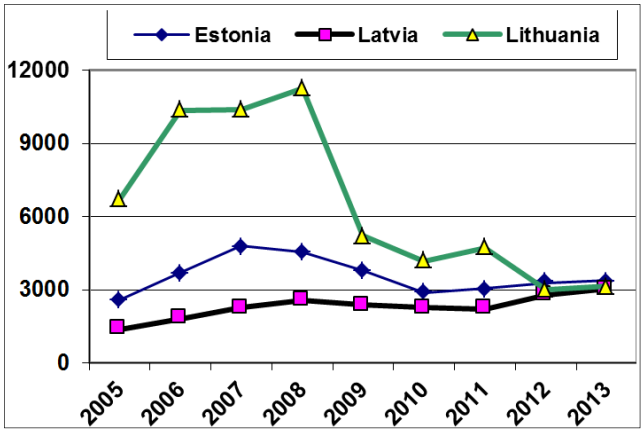


Figure 6. *Number of enterprises of Baltic countries. Construction of buildings [25].*

Table 3. *Number of enterprises of Baltic countries. Construction of buildings [25].*

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estonia	2580	3, 694	4792	4547	3794	2874	3048	3280	3376
Latvia	1354	1786	2268	2573	2392	2288	2, 205	2781	3039
Lithuania	6695	10357	10391	11256	5214	4183	4721	3014	3136

Housing construction boom of countries was at various times: in Estonia in 2007, in Poland and Lithuania in 2008, and in Czech Republic in 2009. This was followed by great decline, in Lithuania as much 3. 6 times. The record level of boom years did not achieve any of them (all CEE enterprises). Exception was Latvia, it number of enterprises of construction of buildings was in 2013 2. 2 times higher than in 2005.

Table 4. *Number of enterprises. Development of building projects [25].*

	2008	2009	2010	2011	2012	2013
Estonia	1, 011	756	321	229	226	217
Latvia	624	621	570	462	549	536
Lithuania	569	484	445	434	439	441

In 2013 was total building projects of EU-28 143, 125.

4.2.2. Civil Engineering

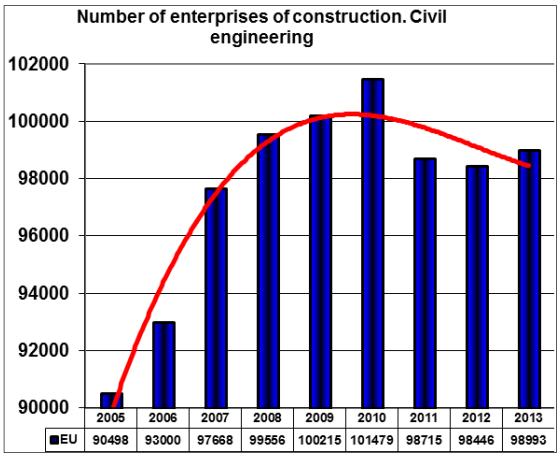


Figure 7. Number of enterprises of construction. Civil engineering of EU [25].

Table 5. Number of enterprises of EU and EFTA countries. Civil engineering [25].

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Estonia	246	293	363	503	549	686	729	643	738
Latvia	287	341	388	513	522	549	592	738	854
Lithuania	210	227	253	289	288	291	301	321	317

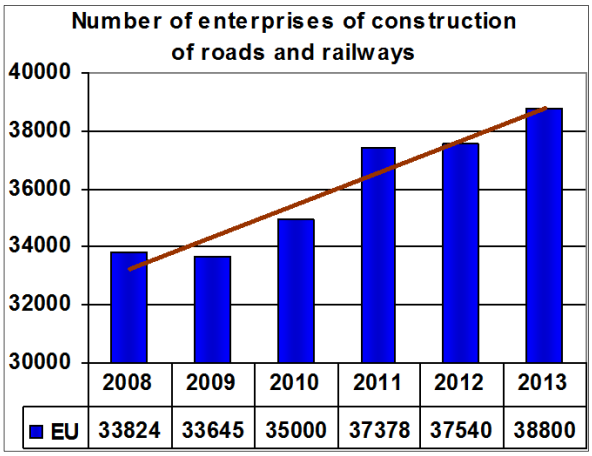


Figure 8. Number of enterprises. Construction of roads and railways of EU [25].

Table 6. Number of enterprises of EU and EFTA countries. Construction of roads and railways [25].

	2008	2009	2010	2011	2012	2013
Estonia	173	201	208	203	194	197
Latvia	278	260	267	253	293	321
Lithuania	118	113	114	116	125	122

4.2.3. Specialised Construction Activities

Table 7. Number of enterprises of EU countries. Specialised construction activities [25].

	2005	2007	2008	2009	2010	2011	2012	2013
Estonia	1608	2667	3267	3568	3886	4111	4453	4782
Latvia	2851	3938	4513	4223	4037	3783	4482	4923
Lithuania	5168	11109	10884	6610	7727	11973	16907	16977

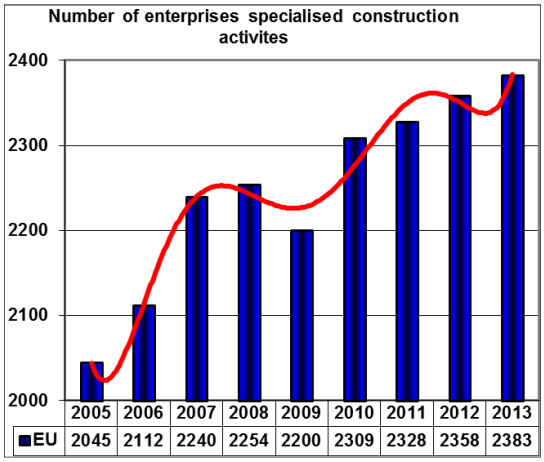


Figure 9. Number of enterprises, in thousand. Specialised construction activities of EU [25].

4.3. Construction Enterprises by Employment Size Class

Table 8. Number of enterprises by employment size class. Construction 2012 [26].

	0 - 9	10-19	20-49	50-249	250 >	Total
Estonia	7, 542	507	238	79	10	8, 376
Latvia	6, 767	606	402	212	12	8, 000
Lithuania	18, 378	911	611	310	32	20, 242

	0 - 9	10 - 19	20 - 49	50 - 249	250 >	Total
EU 28	3, 074, 204	129, 439	56, 080	20, 000	2, 100	3,280, 371
share, %	93. 67	3. 94	1. 71	0. 61	0. 06	100

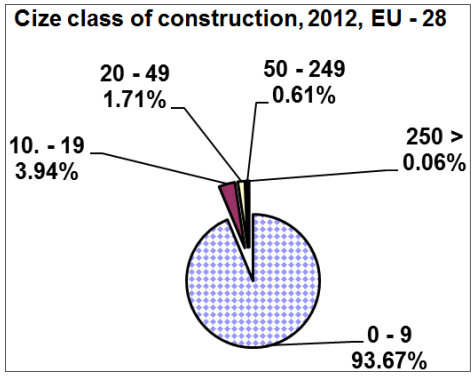


Figure 10. Enterprises by employment size class, construction, 2012, EU- 28 [26].

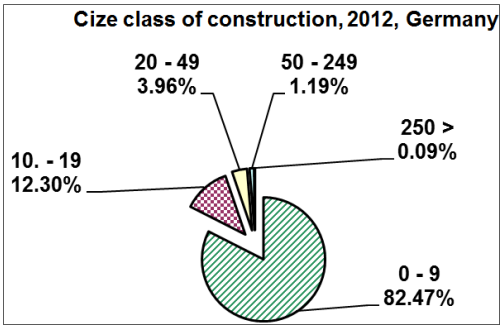


Figure 11. Enterprises by employment size class, construction, 2012, Germany [26].

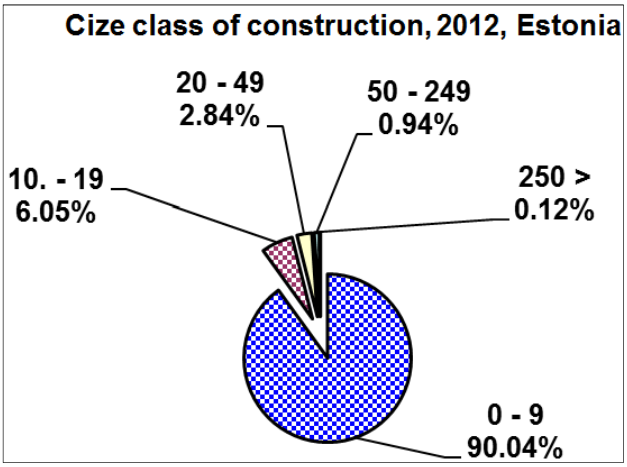


Figure 12. *Enterprises by employment size class, construction, 2012, Estonia [26].*

Figures show EU average, large state and small country differences.

Also in this group of countries is large, nearly double the differences.

However, all of these countries, the level is much lower than in Western European countries.

More detailed analysis of the enterprises in the Europe countries have in the authors' earlier works. Taking into account this publication and the previous work of the authors [9 - 30] and other authors' works [31 - 33] have made the following conclusions and suggestions.

5. Conclusions

- The construction boom in EU was in 2007 and in 2009 sharp decline.
- The EU-28 and the euro area emerged from the crisis, as evidenced by the positive GDP growth.
- In 2013 the EU has not reached the level of enterprises of construction of 2007.
- The development of the Baltic countries economy before and after the crisis was one of the fastest in the EU, but in 2009 were very big fall of real GDP.
- In all three Baltic countries was great, nearly double, growth of enterprises of construction.
- The construction boom by persons employed of CEE and Baltic countries was in 2007 - 2008 and in 2009 - 2010 was sharp recessions. In 2013 the EU has not reached it level of 2007.
- In CEE-8 countries was greater apparent labour productivity in 2012 in Slovenia (19.9) and in Baltic States in Estonia (21. 1). It was lower in Bulgaria (8.3), Romania (10. 1) and Lithuania (10.2).
- The differences of productivity between the EU countries were very large, up to 46 times (!). In 2012, the difference was 21 times. Estonian productivity was 2.5 times higher than in Bulgaria.
- Many countries, including also CEE and Baltic countries, were labour productivity by size class differences to three times, in Portugal up to four times.
- In principle, the construction companies of the Baltic countries as a whole exited the economic crisis successfully, some sooner, some later. On the other hand, the crisis meant the death of thousands of companies and a rise in unemployment.
- To get a more accurate overview of what were the lessons learnt by countries as a result the economic crisis, other key indicators in their interconnection should be observed as well. A more detailed analysis of various types of construction would also provide a more accurate picture.

References

[1] Kindleberger, C. P. and Aliber, R. (2005), Manias, Panics, and Crashes: A History of Financial Crises, 5th ed. Wiley.

[2] Tanning, L.; Tanning, T. (2015). Gross Value Added Analyses of Construction Enterprises in New European Union Member States Before and After Economic Crisis. International Journal of Business and Industrial Marketing. American Association for Science and Technology, USA, 1 (3), 53 – 63.

[3] Tanning, L.; Tanning, T. (2015). Analysis of the Resource Productivity of New Members of the European Union. Journal of Behavioural Economics, Finance, Entrepreneurship, Accounting and Transport. Science and Education Publishing. USA, 3 (1), 21 - 31.

[4] Tanning, T.; Tanning, L. (2014). Labour Productivity Analyses of Gross Value Added and Turnover Per Person Employed of Transportation Companies of European Countries in 2005 – 2011. International Journal of Economic Theory and Application: American Association for Science and Technology, 1 (1 March), 9 - 18.

[5] Tanning, L.; Tanning, T. (2014). The Economic Crisis Lessons of Transportation Companies by Labour Productivity in Baltic and Central and Eastern Europe Countries. Journal of Behavioural Economics, Finance, Entrepreneurship, Accounting and Transport. Science and Education Publishing. USA, 2 (4), 94 - 103.

[6] Tanning, L.; Tanning, T. (2014). Gross Value Added per Person Analyses of Transportation Companies of new European Union countries in 2005 – 2011. SOP Transactions on Marketing Research, USA, 1 (2), 1 - 15.

[7] Tanning, L.; Tanning, T. (2013). Labour Productivity Analyses in Central and East European and Baltic Countries. PARIPEX – Indian Journal of Research, 2 (8 Aug), 53 - 55.

[8] Tanning, T.; Tanning, L. (2013). The Baltic States Companies Working Efficiency Before and After the Economic Crisis. Journal of International Scientific Publications: Economy and Business, 7, 342 - 363.

[9] Tanning, L.; Tanning, T. (2013). The Economic Crisis Lessons from Europe. Enterprise Size Class Analyses of Transportation Companies of the Baltic Countries before and After the Economic Crisis. American International Journal of Contemporary Research, Vol 3 (10), 13 - 24.

[10] Tanning, L.; Tanning, T. (2013). The Gross Added Value of Transportation Enterprises in the Poland and Other Central and Eastern European Countries. Indian Journal of Applied Research (IJAR), 9, 136 - 137.

[11] Tanning, L.; Tanning, T. (2013). The Professionals Saved the Estonian Economy (Economic Lessons from the Crisis). International Journal of Arts and Commerce, 2 (5), 16 - 26.

[12] Tanning, T.; Tanning, L. (2013). The Turnover of Transportation Companies in the European Countries of the Former Eastern Bloc Before and After the Economic Crisis. Tem Journal - Technology, Education, Management, 3, 253 - 260.

[13] Tanning, L.; Tanning, T. (2013). Turnover Analyses of Transportation Companies of the new European Union states Before and After the Economic Crisis. The Economic Crisis Lessons from Europe. American International Journal of Social Science, 2 (7), 37 - 48.

[14] Tanning, T.; Tanning, L. (2013). Why Eastern European wages are several times lower than in Western Europe? Global Business and Economics Research Journal (Jakarta, Indonesia), 2 (1), 22 - 38.

[15] Tanning, T. (2013). Companies Working Efficiency and Economic Crisis the Example of Baltic States. Global Research Analysis (GRA), India, 2 (6), 213 - 215.

[16] Tanning, T. (2013). Top Specialists Rescued the National Economy - Economic Lessons from the Crisis. PARIPEX - Indian Journal of Research (PIJR), 3 (5), 253 - 255.

[17] Tanning, L.; Tanning, T. (2012). Baltic States Problem - Labour Market; Analysis Employment, Unemployment and Vacancies of Estonia; Improved Beveridge Curve. International Journal of Business and Social Science (USA), No. 21, 36 - 56.

[18] Tanning, T.; Tanning, L. (2012). Modernized Beveridge curve. Journal of Technology, Education, Management, Informatics, Vol. 1 (4), 258 - 269.

[19] Real GDP growth rate – volume. Percentage change on previous year. Code: tec00115. Eurostat. 14. 08. 2015. http: //epp. eurostat. ec. europa. eu/tgm/table. do?tab=table&init=1&plugin=1&language=en&pcode=tec00115.

[20] GDP - real growth rate. Factbook of CIA https: //www. cia. gov/library/publications/the-world-factbook/rankorder/2003rank. html.

[21] Government deficit/surplus, debt and associated data. Code: gov_10dd_edpt1. Last update: 17-06-2015 http: //appsso. eurostat. ec. europa. eu/nui/show. do?dataset=gov_10dd_edpt1&lang=en.

[22] GDP and main components. Code: nama_gdp_c. Eurostat. Last update: 13-04-2015 http: //appsso. eurostat. ec. europa. eu/nui/submitViewTableAction. do#.

[23] Index of Economic Freedom http: //www. heritage. org/index/ranking 17-08-2015.

[24] Human Development Index. Human Development Report 2014. United Nations. http: //hdr. undp. org/sites/default/files/hdr14-report-en-1. pdf.

[25] Annual detailed enterprise statistics for construction (NACE Rev. 2, F). Code: sbs_na_con_r2. Structural business statistics (sbs). Eurostat. Last update: 21-08-2015 http: //appsso. eurostat. ec. europa. eu/nui/show. do?dataset=sbs_na_con_r2&lang=en#.

[26] Construction by employment size class (NACE Rev. 2, F). Code: sbs_sc_con_r2. Eurostat. Last update: 21-08-2015 http: //appsso. eurostat. ec. europa. eu/nui/show. do?dataset=sbs_sc_con_r2&lang=en.