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Companies Working Efficiency and the Economic Crisis the Example of the Baltic States

Toivo Tanning Tallinn University of Technology, Tallinn, Estonia.

ABSTRACT *Goal of this article is to analyse the labour productivity or working efficiency of Baltic States before and after the economic crisis; and to compare them on the EU level. A number of proposals to increase labour productivity for both workers and entrepreneurs have been listed in the summary.*

KEYWORDS: Baltic States, workforce, working efficiency, GDP

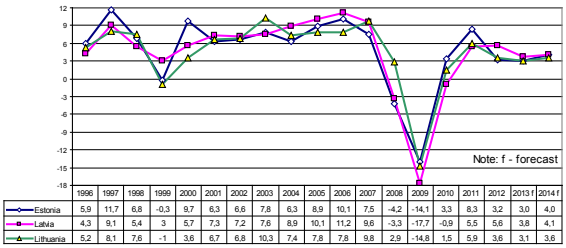
1. INTRODUCTION

The Baltic States (Estonia, Latvia, and Lithuania) have been members of the European Union (EU) since 2004. Estonian belongs to the Eurozone and the OECD. Before and after (2011–2012) the economic depression, the Baltic States were successful. The Baltic countries had the highest in GDP growth rates in Europe between 2000 and 2007. Hence, these countries were called the Baltic Tigers.

The techniques and labour market survey definitions used by the author have been specified in Methodological Notes (EU-LFS) [1]; productivity per worker or per hour [2], economic growth rate of GDP [3] and GDP per capita [4] is defined of Eurostat.

2. ANALYSIS

All figures have made author. The theoretical basis of workforce productivity measurement in more detail are given of earliest publications. [5,6,7]



	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013 f	2014 f
Estonia	5,9	11,7	6,8	-0,3	9,7	6,3	6,6	7,8	6,3	8,9	10,1	7,5	-4,2	-14,1	3,3	8,3	3,2	3,0	4,0
Latvia	4,3	9,1	5,4	3	5,7	7,3	7,2	7,6	8,9	10,1	11,2	9,6	-3,3	-17,7	-0,9	5,5	5,6	3,8	4,1
Lithuania	5,2	8,1	7,6	-1	3,6	6,7	6,8	10,3	7,4	7,8	7,8	9,8	2,9	-14,8	1,5	5,9	3,6	3,1	3,6

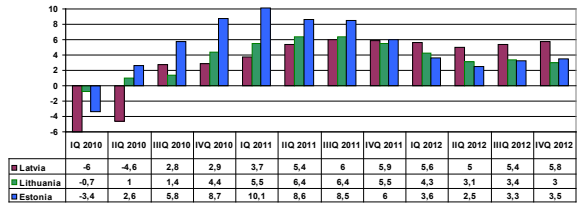
Figure 1. Real GDP growth rate. Percentage change during the previous year [3]

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 17.7% in Latvia and 14.1% in Estonia.

If an annual real GDP increment of more than 10% can be considered excellent, then the result in 2003-2007 was GDP growth rate were one of the largest in the world.

The development of the Baltic countries economy before and after the crisis was one of the fastest in the EU. 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.

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 growth in 2011 and also 2012 are highest in the EU.



	IQ 2010	IIQ 2010	IIIQ 2010	IVQ 2010	IQ 2011	IIQ 2011	IIIQ 2011	IVQ 2011	IQ 2012	IIQ 2012	IIIQ 2012	IVQ 2012
Latvia	-6	-4,6	2,8	2,9	3,7	5,4	6	5,9	5,6	5	5,4	5,8
Lithuania	-0,7	1	1,4	4,4	5,5	6,4	6,4	5,5	4,3	3,1	3,4	3
Estonia	-3,4	2,6	5,8	8,7	10,1	8,6	8,5	6	3,6	2,5	3,3	3,5

Figure 2. GDP growth rate in the Baltic States. Percentage change during the previous year [8]

Quarterly analysis provides a more accurate picture. In 2011th was Estonia and in 2012th Latvian economy (GDP) fastest development in the Baltic countries as well as among all EU-27 countries.

GDP growth rate in 2012 were of EU-27 the three last quarter and of the Euro area (17) all quarters negative - which means going back to the economy. Against the background of Baltic countries seem particularly good results in the last 10 quarters.

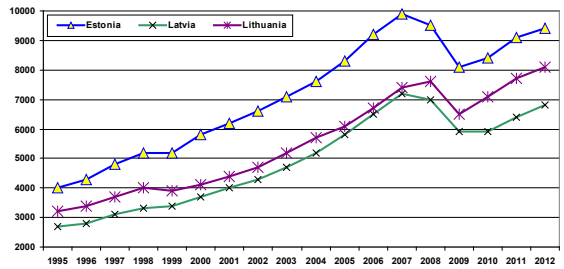


Figure 3. Real GDP per capita, EUR per inhabitant [4]

Between 1995 and 2007, GDP per capita in constant prices in Estonia increased by 2.48 times, by 2.31 times in Lithuania and 2.67 in Latvia. The economic crisis significantly brought down the levels and in 2011, Lithuania was the only country that managed to exceed pre-crisis levels, in fact, Estonia and Latvia were also short of the level of the year 2006.

Table 1. Labour productivity per employed person. Index (EU-27=100) [9]

	1995	1997	1999	2001	2003	2005	2006	2007	2008	2009	2010	2011
Estonia	34.1	40.0	43.5	48.4	55.0	60.8	62.4	66.7	65.8	65.1	68.4	67.6
Latvia	33.4	35.7	38.3	41.6	44.2	47.8	48.9	51.5	51.7	52.9	53.8	62.7
Lithuania	36.2	38.6	40.6	47.4	52.6	55.1	56.9	59.6	62.1	58.1	62.6	64.9

In Estonia yield per worker, i.e. productivity grew 2.0 times during the period under examination; however, it came to a pause during the economic crisis.

However, the prevailing trend is that regardless of growth in productivity elsewhere, the indicator rises noticeably quicker in Estonia and also other new EU accessions, than in veteran and wealthy EU-15 countries.

When analysing productivity in EU-27 (added value produced by one worker) by sectors of the economy and the size of companies, one cannot draw an equipollent (equal in force or effect) conclusion regarding productivity and the number of workers engaged in the company. It is

conditioned by the particular sector of the economy. For instance, productivity among energy and water management companies is highest in small firms with up to 9 persons on payroll. On the other hand, for companies active in the lease of movable property, accommodation companies, and among all the sectors of the economy taken together as an entity, productivity is highest in big firms that employ 250 or more workers. Highest productivity among textile and habiliment firms can be noted in companies with 10-49 workers; the same can be said for timber companies with 50–249 workers [10].

Table 2. Labour productivity. Euro per hour worked. [2]

	2000	2002	2004	2006	2007	2008	2009	2010	2011	2012
Estonia	7.0	7.7	8.7	9.7	10.3	10.0	10.3	10.9	10.8	11.1
Latvia	4.2	4.7	5.5	6.3	6.7	6.7	6.6	6.9	7.8	8.1
Lithuania	5.6	6.5	7.5	8.2	8.7	8.8	8.3	8.7	9.2	10.2

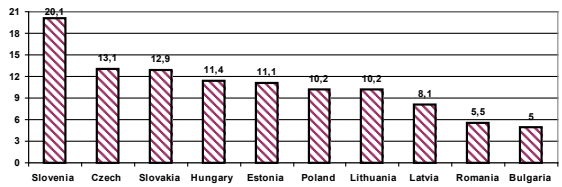


Figure 4. States with lower productivity, Euro per hour worked, < EU=100, 2012 [2]

Table 3. Labour productivity per hour worked. Index, 2005=100 [11]

	2006	2007	2008	2009	2010	2011	2012
EU-27	102.1	103.6	103.1	101.7	103.9	105.3	105.3
Estonia	105.0	112.1	108.9	111.7	118.2	116.9	116.9
Latvia	106.9	114.6	114.7	111.9	117.3	133.6	133.6
Lithuania	106.7	112.8	115.0	107.5	113.9	119.8	119.8

Compared to 2005, labour productivity per hour in all 10 of the new post-socialist EU countries has increased at a more rapid pace than the EU-27 average. Ireland had the greatest increase of the old EU member states (117.3) and Latvia among the new members (133.6). Hungary had the smallest growth (104.6) among new members, which was even lower than the EU 27 average. The level of Estonia among the new member states was average.

Table 4. Labour productivity per hour worked. Percentage change over previous year [2]

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
EU-27	1.8	1.7	1.5	1.7	1.2	2.1	1.4	-0.5	-1.4	2.1	1.4
Estonia	5.9	5.0	6.1	5.8	6.0	5.0	6.8	-2.8	2.5	5.8	-1.1
Latvia	6.5	6.3	6.2	9.3	6.6	6.9	7.2	0.1	-2.4	4.8	13.8
Lithuania	11.8	4.8	8.9	6.0	1.7	6.7	5.7	1.9	-6.5	5.9	5.2

Labour productivity grew for all countries until 2008. In 2008 some countries, including Estonia (-2.8), experienced a decline. In 2009, all countries, except Estonia and Poland were experiencing a decline. In 2011 hourly labour productivity only decreased in Estonia compared to the previous year. The greatest productivity growth in 2011 was of Latvia (+13.8%).

From the second half of 2006, productivity per employed person of Estonia in reference to sales revenues was over 20 thousand Euros. A dramatic decline occurred in QI of 2009, which was followed by a slow growth, whereas QIII and QIV of 2010 were record-breakers. Admittedly, Estonia has made its exit from the economic crisis mainly along the intensive road, i.e. on account of productivity growth.

Productivity per employed person in reference to added net value has changed due to other regularities. As late as in QIV of 2010, Estonia reached the level of the three successful pre-crisis quarters of 2007. Whereas in QIV of 2010, the level was already 1.5 times higher than productivity in the deepest slump of the crisis in QI of 2009.

After the crisis, productivity recovered quicker in reference to sales revenue than in reference to added value, which is an indicator of the runaway selling prices after the crisis.

While the above analysis by quarters supports the assumption that during the period of the economic crisis changes take place extremely rapidly, as a consequence, an analysis with one year precision will not provide a correct picture of upcoming changes.

Taking into account this publication and the previous work of the authors [5,6,7,12,13] have made the following conclusions and suggestions.

3. CONCLUSIONS AND SUGGESTIONS

Conclusions

1. Companies came out of the economic crisis by a surge of hiring professionals, engineers and customer service staff.
2. Companies were brought out of the economic crisis by the growth of labour productivity.
3. The importance of large companies, especially those with 250 and more employees, was decisive.
4. The Baltic countries were best higher indicators in labour productivity Estonia, which has ensured better key indicators, compared with Latvia and Lithuania.
5. Rich countries of Western Europe to reach a level the Baltic countries should be increased of productivity per worker for two and per hour worked three times.

To increase labour productivity the following should be taken into account:

1. For the employees.

1.1 Objective factors (different innate abilities, talents, working and living conditions),

1.2 Subjective factors (self-realization, motivation, commitment, a desire to work better, ambition, education, qualification, a variety of mental and physical abilities, laziness, negligence, drunks, the courage to set high goals and the desire to strive for them).

2. For the employers (the company).

2.1 Objective factors [better organization of work, using more efficient machinery and equipment, innovation, improving working conditions (lighting, noise, humidity, temperature, air composition, etc.), natural conditions, material possibilities],

2.2 Subjective factors [moral (cheering, encouragement, etc.) and material incentives (salary, bonuses, bonus payments, etc.), creating conditions for up-skilling and re-training, the work environment (working collective, i.e. co-workers, etc.), not overly demanding, behaviour with the staff (guaranteeing human integrity, name-calling, etc.), taking internal tensions to the minimum, a desire to develop the company and increase its fame, the educational level and experiences (information capital) of the management leadership, the ambition of the company's management].

3. Several of the factors for raising mental and physical work productivity are different. Typically, an increase in the company's productivity depends more on the employees that do mental work (engineers, economists, etc.). It is important to establish an optimal relationship between the groups. The excellent drawings for a machine designed by an engineer will still usually be finished in metal by workers.
4. Each company, sector of the economy and region has its peculiarities, and taking these into account would increase labour efficiency.

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