

**ESTONIAN RURAL AND URBAN ENTERPRISES' INVESTMENTS IN FIXED  
ASSETS AND CHANGES IN SALES REVENUE FROM 2005 TO 2010**

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**Abstract.** The aim of research is to study the investments and sales revenue of Estonian rural and urban enterprises in the period of 2005- 2010 during which Estonia went through high economic growth followed by a deep decline and first signs of economic recovery in 2010. The analysis is based on financial data of economically active enterprises collected by the Statistical Office of Estonia. The average investment in fixed assets and average sales revenue per urban and rural enterprise is compared in the analysis. The results show that while the number of economically active enterprises increased in more rapid pace in Estonian rural areas, it is highly problematic that their average annual investment and sales revenue remains considerably lower than that in their urban counterparts. For Estonian rural enterprises, both those indicators grew slower during the economic boom years of 2005 to 2007 and decreased more rapidly in the decline years of 2008 and 2009; thus, widening the gap with the urban enterprises. The weak recovery of enterprise investments remains a considerable problem for further growth.

**Key words:** Estonia, rural enterprises, urban enterprises, investments, sales revenue.

**JEL code:** R10

## **Introduction**

The economic climate of the recent years has been a considerable challenge for all Baltic States. Estonia is one of the countries that went through an extreme cycle of high growth up to 2007 (OECD, 2011) characterised by overheating together with high inflation (OECD, 2012); followed by precipitous decline in 2008 and 2009 that was accompanied by high structural unemployment and substantial decline in domestic demand (OECD, 2011). The recession ended in the first half of 2010, when the economy started to grow more rapidly; however, the Estonian economic recovery in the recent years has been highly volatile (OECD, 2012) and challenging to both urban and rural enterprises in Estonia. The rural areas have been affected by ongoing economic restructuring as the weight of agriculture as provider of rural jobs and driver of rural economy is low and continues to decline (OECD, 2006). In Estonia, the tertiary sector has become the main provider of rural jobs and new enterprise growth (Sakk O. et al., 2013) as the number of tertiary sector rural enterprises passed the number of primary sector enterprises in 2007 (SOE, 2013). One of the consequences of those changes has been high vulnerability of rural enterprises to the sharp decline in domestic demand starting in 2007, as with the onset of the recession and high unemployment, the customers were first to cut back on the consumption of services.

In the present economic climate in Europe, the high emphasis is being placed on the development of measures that should lead to the economic recovery and revival (Carballo-Cruz F., 2011; Stamatovica M., Zakic N., 2010; World Bank, 2011). Besides the overall impact of economic climate, the rural and urban

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enterprises face their own distinctive set of challenges arising from their location, population and enterprise density, and regional development characteristics. The typical problems of rural enterprises include their distance from markets and suppliers (Smallbone D. et al., 2003; Besser T.L., Miller N.J., 2013), small and specialised economies (Rizov M., 2006), and lack of economies of scale and agglomeration effect (Besser T.L., Miller N.J., 2013) etc. Due to both differences in industry composition and productivity, rural industries often lag behind their urban counterparts (Rizov M., Walsh P.P., 2011). The urban enterprises are often bigger, have better access to educated labour, and are more likely operating in high growth sectors (Yu L. et al, 2011). While many factors work in favour of urban enterprises, several studies indicate that rural enterprises may have better survival chances, as the company survival rates decline with the increased population density (Fritsch M. et al, 2006); start-up companies are likely to grow more rapidly in the most rural labour markets (Acs Z., Malecki E., 2003). The smallness of rural enterprises can also work in their favour, e.g. as in economic downturn small rural businesses that had more difficulties with finding external financing, were also less dependent on external financing (Andersen A.R. et al., 2010).

In Estonia, the high regional disparities that appeared during the transition process in the 1990s have persisted and the regional economic development continued to be strongly polarised to the territory around the Estonian capital Tallinn (Venesaar U., 2006). As the Estonian government has set the goal to curb the concentration of population as well as economic activity in the capital region (Servinski M., 2010), the regional aspect of enterprise development is a considerably important topic.

The present paper focuses on the research question of what type of impact the onset of economic recession had on the investments of Estonian urban and rural enterprises, and on their sales revenue. After the EU accession boosted the Estonian economic growth, the borrowing in euro became cheap (OECD, 2012). However, after the onset of crisis, the availability of external financing became more restricted. As the investments of enterprises are important drivers of economy and regional development, the impact of recession on the investment behaviour of urban and rural enterprises is a highly relevant topic. Also, as the onset of recession in Estonia was characterised by sharp collapse of domestic demand, its impact on the sales revenue of urban and rural enterprises requires attention.

The aim of the present research is to study the investments and sales revenue of Estonian rural and urban enterprises. The financial data of Estonian enterprises studied in the present research is from 2005 to 2010, during which Estonia went through high economic growth following the EU accession, then a steep economic decline in 2008 and 2009, and a slow recovery starting in 2010.

In the present research, rural enterprise is defined as an enterprise registered in Estonian rural municipality or in a town with less than 4000 inhabitants. Urban enterprises are registered in urban municipalities with more than 4000 inhabitants. The urban-rural definition corresponds to that of the Estonian Rural Development Programme 2007- 2013 (EMA, 2008). The data used in the analysis were collected for the survey "The Rural Enterprises' Situation, Development Trends and Need for Support" (Institute of Economics ..., 2012) that was financed by the Estonian Ministry of Agriculture from the resources of Estonian Rural Development Programme. In the survey, an outtake of financial data of rural enterprises was ordered from the Estonian Statistical Office's database of enterprises' financial indicators. The database is based on the financial indicators collected from the public and private limited companies, general or limited partnerships, commercial associations, and branches of foreign companies that are economically active (i.e. had expenditures, net sales etc.) in the reference period (SOE, 2013). The data

do not include the financial data of sole proprietors and enterprises in the field of financial intermediation (banks, insurance etc.). The research focuses on two main indicators: enterprises investments in fixed assets and annual sales revenue. The data on sales revenue includes income from sale of all products, goods and services; it excludes VAT and excises, subsidies. The total investments into fixed assets (the cost of buildings, land, equipment, machinery, vehicles, installations, construction, reconstruction, intangible fixed assets, investment properties etc.) are analysed (SOE, 2013) for the study of investment behaviour. On the basis of the financial data, the average indicators are calculated for the urban and rural enterprises. The following methods have been used: descriptive method, analysis and synthesis, and graphical analysis.

The paper has set the following research tasks: to study the changes in the number of economically active enterprises from 2005 to 2010; to calculate the average investment in fixed assets in urban and rural enterprises; and to compare the changes in average sales revenue in Estonian urban and rural enterprises from 2005 to 2010.

One of the delimitations of the present analysis is the availability of data. At the time of the analysis in 2013, the last full year for which regional data were available was 2010. As Estonian enterprises prepare their annual reports 6 months after the end of fiscal year, there is a two year time delay in the availability of more specific financial data. The analysis does not take into account either the regional diversity of enterprises as there are also considerable regional differences between rural regions themselves. Another limitation is that while in Estonian rural areas the share of sole proprietors is higher among the enterprises, the present data do not include data from sole proprietors as they have different financial statement forms. The financial data of enterprises provided in the Estonian Statistical Office's database are available on Estonian county level (15 counties) without division to more specific urban and rural dimension. Part of the novelty of the present research is that there have not been urban and rural comparisons of Estonian enterprise' performance, and thus, in the survey a more specific special outtake of urban and rural enterprises was ordered from Estonian Statistical Office.

## **Research results**

In 2005, there were 9489 economically active enterprises registered in Estonian rural municipalities and towns with less than 4000 inhabitants (SOE, 2013). They accounted for 22.5% of all economically active enterprises in Estonia. The three years following EU accession in 2004 were characterised by high economic growth during which the number of active enterprises also increased rapidly (Table 1). In urban areas, the number of active enterprises increased by 10% annually from 2005 to 2007, while in rural areas the rate was even higher. The total number of economically active rural enterprises increased by 19.3% from 2005 to 2006. The increase in the number of rural enterprises was 16% from 2006 to 2007. In 2007, with the first signs of economic slowdown, the number of enterprises continued to increase more slowly. The number of active urban enterprises actually decreased by 0.3% from 2008 to 2009 with the onset of recession; however, the number increased by 3.9% in rural areas. By 2010, the number of active enterprises in Estonia was 58 347 (Table 1). As the number of economically active enterprises grew more rapidly in rural areas, the share of rural enterprises had increased to 28.7% by 2010, while enterprises registered in urban areas accounted for 71.3% of all economically active enterprises.

Table 1

**Economically active enterprises in Estonia 2005- 2010**

	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Urban	32 736	36 190	39 882	40 853	40 717	41 612
Rural	9 489	11 317	13 130	14 800	15 378	16 735
Total	42 225	47 507	53 012	55 653	56 095	58 347

**Source: authors' calculations based on the SOE, 2012**

The years 2005 to 2007 were characterised by rapid growth in both investments in fixed assets and the sales revenue of enterprises (Table 2). The investments peaked in 2007 with 4.29 billion – a 57.1% increase in comparison with the year 2005. However, in 2008, the volume of investments started a sharp decline. Despite the first signs of economic recovery in 2010, the economically active enterprises' annual investments in fixed assets in 2010 were still considerably lower than the level of investments of 2005. The decline in the total sales revenue reported by the enterprises was not so steep in 2008 and 2009, and in 2010 it exceeded the level of 2006.

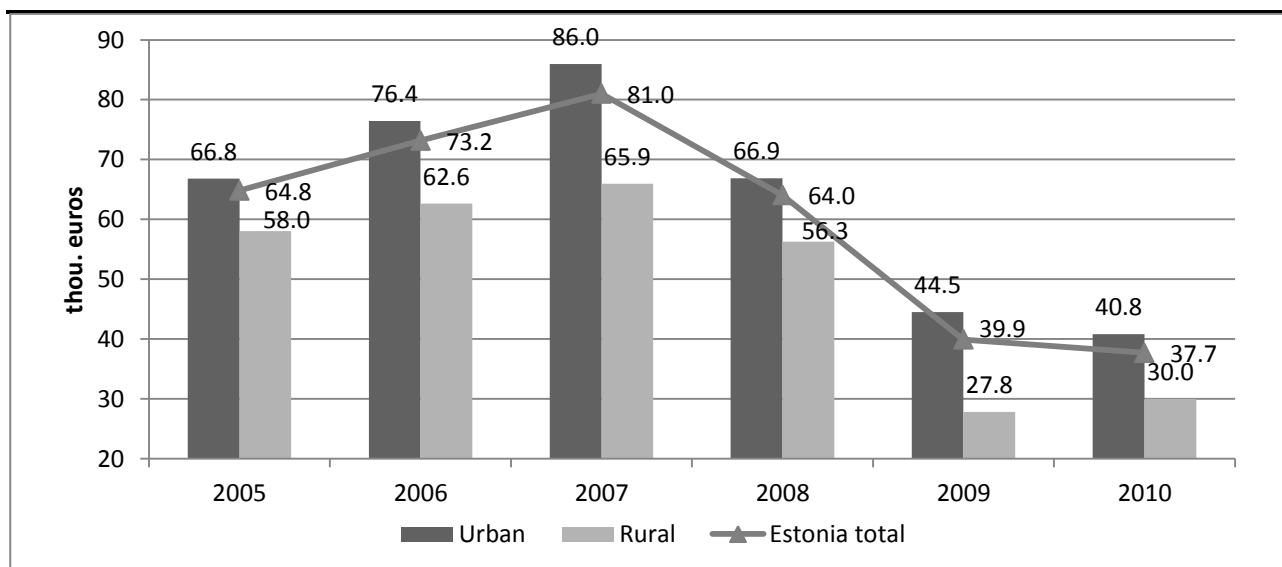
Table 2

**Annual investments in fixed assets and sales revenue of Estonian economically active enterprises from 2005 to 2010 (billion of EUR)**

	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Investments in fixed assets	2.73	3.47	4.29	3.56	2.24	2.20
Sales revenue	31.36	37.50	44.52	44.46	33.71	37.98

**Source: SOE, 2013**

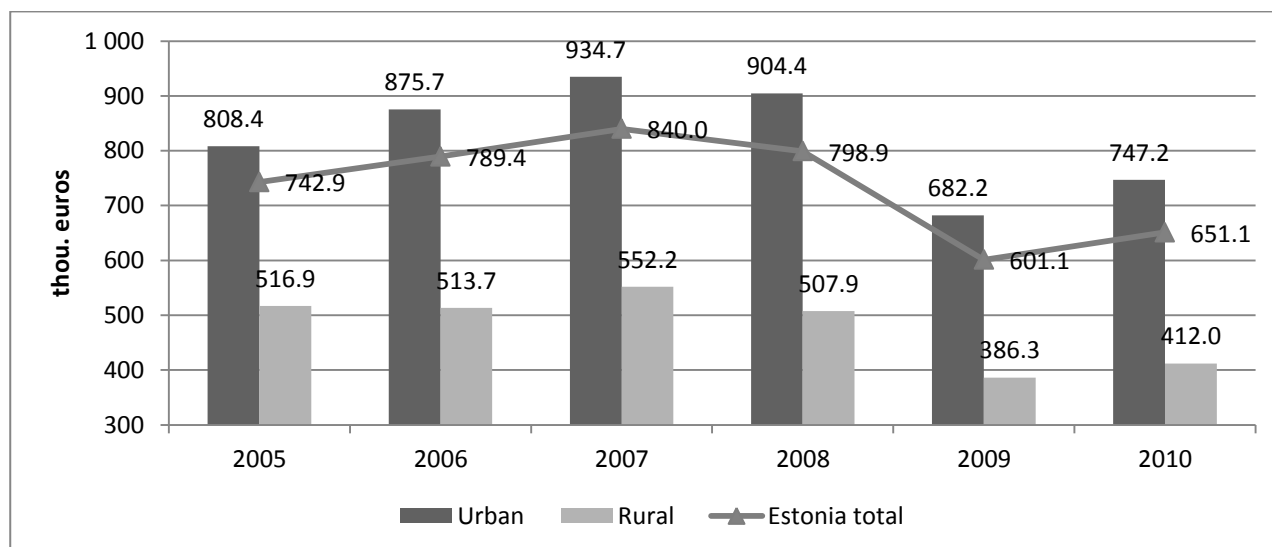
The average annual investment in fixed assets per economically active Estonian enterprise (Figure 1) has been consistently lower in rural areas. In 2005, the average investment made by a rural enterprise was EUR 58 000 – around 13% lower than in an urban enterprise in case of which the annual average investment in fixed assets was EUR 66 800. From 2005 to 2007, the investments made by urban enterprises grew more rapidly, and in 2007, the average investment in fixed assets by a rural enterprise was 25% lower than in an urban enterprise. Investments of rural enterprises decreased also more than in urban enterprises. In 2009, rural enterprises invested less than half of what they had invested in the previous year as the average annual investment per rural enterprise was just EUR 27 800 in comparison with EUR 56 300 per enterprise the year before. In urban enterprises, the investments dropped by third as the average investment per enterprise was EUR 44 500 in 2009 (Figure 1). However, in 2010, the average investment per rural enterprise started to increase, while the indicator continued to decrease in case of urban enterprises. Still the annual average investment in a rural enterprise was 26.5% lower than the average investment in an urban enterprise in 2010. The overall decrease in the investments in the period was higher in case of rural enterprises as the average investment in rural enterprises in 2010 was 48% lower than it had been in 2005. In case of urban enterprises, the average investment per enterprise was by 39% lower than in 2005.



Source: authors' calculations based on the SOE, 2012

Fig. 1. Average investment in fixed assets per economically active enterprise

In 2005, the sales revenue of a rural enterprise was lower than in urban enterprises by a third – the average indicator per economically active enterprises was EUR 516 900 in rural areas and EUR 808 400 per urban enterprise (Figure 2). In the economic growth years of 2006 and 2007, the sales revenue increased more rapidly, and in 2008 and 2009, it decreased less in urban enterprises.



Source: authors' calculations based on the SOE, 2012

Fig. 2. Average sales revenue per economically active enterprise

In 2010, the average sales revenue per rural enterprise was 55% of the average on an urban enterprise. The sales revenue of enterprises recovered from recession more quickly than the investments. The period studied coincided with high inflation in Estonia (Eesti Pank, 2012). The comparison of the average indicators for the years 2005 and 2010 shows that in 2010, the average sales revenue per urban enterprise was 92% of the 2005 level and in case of rural enterprises the indicator was 80% of the level of 2005.

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## **Conclusions**

The paper studied the impact of economic recession on the investments and sales revenue of Estonian rural and urban enterprises in the period of 2005-2010.

1. In Estonia, the rural areas were characterised by higher enterprise growth numbers both in the economic boom years following the EU accession and in the years 2008 and 2009 during which Estonian economy went through a steep decline. As the number of economically active enterprises grew more rapidly in rural areas, the share of rural enterprises in the total number of economically active enterprises continued to increase rapidly reaching 29% by 2010 from 22.5% in 2005. However, a limitation of the present analysis is that the regional allocation of the enterprise growth has not been taken into account.
2. The total sales revenue of Estonian enterprises showed signs of recovery in 2010. It can be attributed to recovery in domestic demand but also high inflation. The overall decline in 2008- 2009 was lower in comparison with investment figures.
3. In the situation of high economic volatility, the lack of investments poses a serious problem. Estonia **officially exited recession in 2010; however, the total volume of enterprises' investments in fixed assets remained lower than in the previous years.** The investments in 2010 were still lower the 2005 level, and almost just half of the volume of investments carried out in 2007.
4. Despite the higher increase in the number of enterprises, another problem for Estonian rural areas is the gap in their ability to invest in comparison with urban enterprises. The average annual investment per rural enterprise was 26.5% lower in 2010 than in urban enterprises. In the economic growth years, the average investments made by urban enterprises grew more rapidly and in the economic decline years, they decreased slower than in rural enterprises increasing the urban-rural gap.
5. The drop in the sales revenue per enterprise was slower and recovered more quickly in 2010. Rural enterprises typically face the challenge of longer distances from markets, customers (Smallbone D. et al, 2003; Besser T.L., Miller N.J., 2013). In Estonian case, the characteristic of rural enterprises was also the considerably lower average sales revenue, and the gap between the urban and rural enterprises continued to increase in the period studied.
6. One of the limitations of the present analysis was the time period for which the specific data were available. In the future research, it would be important to continue with the study of how the economic climate of 2011 and 2012 continued to affect the investments of urban and rural enterprises and their sales revenue. In 2010, in the last year in the analysis, Estonian economy showed signs of recovery; however, with the volume of investments made by enterprises still lower than the pre-recession level, it would be important to analyse if this indicator showed signs of recovery and if the gap between urban and rural enterprises continued to decrease or increase.

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