The Aspects of Investments in the Food Industry

Josef Mezera, Roman Němec, Jindřich Špička

Abstract: The aim of the paper is to compare gross investments into the food industry in the Czech Republic and neighbour states. After the crisis of the euro zone and economy of the European Union and during beginning of economic growth at the macroeconomic level in the Czech Republic has become the hot topic theme - investment activities. The investing relates of various sectors of the national economy, especially the key sectors. These include the food sector in the manufacturing industry. This will be also devoted this paper. This is paper about foreign direct investments, but also about other ways of investment and public funding of the Czech food industry. The analysis showed that there should be massive current investments in the examined sectors. Therefore it is important to investment activity in this sector to support from public funds, and that of the European and national sources. The aim will be the application of modern technologies that will improve the industry in product quality, productivity, efficiency and thus competitiveness, not only of food producers, but the whole food chain.

Key words: Investments · Food Sector · Support · Technology · Competitiveness

JEL Classification: G32 · L66 · O31

1 Introduction

The At the time when it seems that the EU overcomed the economic crisis and in the Czech Republic began the economic growth, it would be a missed chance to not increase the volume of investments in the national economy, because investments are called one of the engines of the economy. Especially foreign investments bring new technology, knowledge and experience. In comparison with other countries of the Visegrad group includes the total volume of investments in the Czech Republic in relation to gross domestic product (GDP) to the highest and it is above the average of the European Union 27, which occupy approximately 20 % (Kopečný 2013). This does not mean that the situation in terms of another perspective is sufficient. The situation of each sector is significantly different. The key sector should be crucial in investment activities and these include the food sector. The publication Panorama of manufacturing industry of 2012 shows that production of food products and the manufacture of beverages have share in the revenues from sales of products and services in 2012 more than 8 % and the food sector ranks the second position. Already in the period of privatization the foreign investors came into this sector. The two driving factors, market power and profitability can be postulated from the ultimate determinants of foreign direct investment (FDI): growth pressure and profit maximization objective of the foreign food processing firms (Csaba 2001). In addition to obtaining the necessary capital, this input is connected mostly with the development of new technologies and know-how. In the period before joining the EU, it was assumed that FDI will be directed to a unique production (Putičová & Mezera 2004). The foreign companies, which began on "greenfield" or has entered into an existing company has been characterized by higher productivity and competitiveness (Stančík 2007). The arrival of foreign companies, for example, may increase the technological barrier and deter domestic firms that cannot compete in the competition and foreign investors are gradually squeezed out of the market (Ayyagari & Kosová 2008). In the food industry dominated positive effects. Necessary investments are primarily in fixed assets. The problem seems to be the source for the financing of investment, and therefore it seems desirable to use, in addition to private and public sources from the EU and national resources, which are directed at increasing competitiveness. More than 30 % of enterprises in the sector receive public funds, which mostly come from the EU, but also from government sources. Minimum of resources receive innovative enterprises from local and regional resources (Rusňáková & Špička 2013).

The aim of the paper is to compare gross investments into the food industry in the Czech Republic and neighbour states. The paper also provides discussion about future of public funding of the Czech food industry.

2 Methods

The FDI data were analyzed by the Czech National Bank (CNB), which continuously monitors these data. This bank is stated in the structure of CZ-NACE (for the purposes of this paper CZ-NACE 10-12) and are assessed in the annual
The aspects of investments in the food industry

The inflow of FDI into the production of food products and the production of beverages including the manufacture of tobacco products (CZ-NACE 10-12) reached (according to preliminary data by the CNB) in the year 2013 the amount of -1 593.5 mil. CZK. Other capital, including received and granted loans, showed a positive value. Negative values were recorded in equity capital and primarily reinvested earnings. In comparison with the year 2012, the situation changed markedly. The total value of FDI (for CZ-NACE 10-12) was significantly higher in 2012 than in 2013. The share of these investments in the total FDI in the Czech Republic was 10.77%.

In contrast, in 2013, this share decreased to a negative value -1.63%. This is result of the fact that significantly reduction the inflow of other capital. The FDI in the reporting production for the period from 1997 to 2013 reached, according to preliminary data of the CNB, the amount 85 626.1 mil. CZK. The share of investments in total investments of the national economy was 3.17%.

<table>
<thead>
<tr>
<th>Name</th>
<th>2012</th>
<th>2013</th>
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<tbody>
<tr>
<td>Equity capital¹)</td>
<td>2 043.5</td>
<td>-611.1</td>
</tr>
<tr>
<td>Reinvested earnings²)</td>
<td>-3 313.0</td>
<td>-1 704.9</td>
</tr>
<tr>
<td>Other capital³)</td>
<td>18 102.0</td>
<td>722.5</td>
</tr>
<tr>
<td>Total</td>
<td>16 832.5</td>
<td>-1 593.5</td>
</tr>
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</table>

1) Equity capital comprises nonresident investment in the equity of a company
2) Reinvested earnings consist of the direct investors share (in proportion to direct equity participation) of earnings not distributed as dividends
3) Other capital covers the borrowing and lending of funds, including debt securities and trade credits, between direct investors and their affiliated enterprises and fellow companies in the same enterprise group. These transactions are recorded under intercompany claims and liabilities
4) Preliminary data

Source: ČNB

The outflow of investments from the Czech Republic to abroad (in the CZ-NACE 10-12) for the year 2013 reached, according to preliminary data CNB, 565.9 mil. CZK. For the entire period (1997 - 2013) reached the outflow of these investments 1 557.7 mil. CZK. It represents the share 0.39% in the national economy. For the Czech Republic is crucial inflow of FDI, which should be directed to capital-intensive and perspective industry. For example, in the production of semi-finished and finished foods, after which there is a demand.

3.2 The investments in fixed assets in the food industry with the international comparison

The analysis is focused on the development, structure and international comparison of investments especially in the manufacture of food products and the production of beverages in the period from 2008 to 2012.

3.2.1 The analysis of investments in fixed assets in the manufacture of food products

Between the years 2011 and 2012 reached the maximum growth of investments in fixed assets in the manufacture of food products Austria, where these investments increased by 13.12%. In the Czech Republic this indicator between the years 2011 and 2012 increased by 0.05%. In these years the largest reduction in the volume of this indicator occurred in Slovakia (-23.15%). The Slovak Republic has a downward trend in this indicator since 2009.

In comparison with 2008 this indicator increased in 2012 in Germany by 14.19%, in Hungary by 25.45% and in Austria by 14.18%. In the Czech Republic this indicator slightly decreased (see table 1). In the Slovak Republic it significantly decreased by 40.38%.
The development of this indicator in the Czech Republic shows the lack of financial resources for investments in fixed assets in the food industry. The solution of this situation will help to the measure of the Rural Development Programme 2014 + focused on investments in fixed assets.

**Table 2** Gross investment in tangible goods in the manufacture of food products (EUR million)

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<tbody>
<tr>
<td>The Czech republic</td>
<td>379.40</td>
<td>331.30</td>
<td>335.50</td>
<td>377.80</td>
<td>378.00</td>
<td>100.05</td>
<td>99.63</td>
</tr>
<tr>
<td>Germany</td>
<td>3 657.00</td>
<td>3 773.60</td>
<td>3 766.30</td>
<td>3 941.70</td>
<td>4 176.00</td>
<td>105.94</td>
<td>114.19</td>
</tr>
<tr>
<td>Hungary</td>
<td>280.60</td>
<td>276.00</td>
<td>298.10</td>
<td>350.10</td>
<td>352.00</td>
<td>100.54</td>
<td>125.45</td>
</tr>
<tr>
<td>Austria</td>
<td>492.30</td>
<td>462.70</td>
<td>460.50</td>
<td>496.90</td>
<td>562.10</td>
<td>113.12</td>
<td>114.18</td>
</tr>
<tr>
<td>Poland</td>
<td>1 919.70</td>
<td>1 271.90</td>
<td>1 496.20</td>
<td>1 630.10</td>
<td>1 642.10</td>
<td>100.74</td>
<td>85.54</td>
</tr>
<tr>
<td>Slovakia</td>
<td>210.50</td>
<td>219.30</td>
<td>174.40</td>
<td>163.30</td>
<td>125.50</td>
<td>76.85</td>
<td>59.62</td>
</tr>
</tbody>
</table>

Source: Eurostat

Investments in machinery and equipment represent nearly three quarters of the total investment (74%), investments in construction and alteration of buildings represent 22%, investments in land and investments in existing buildings and structures represent 4%.

Comparison of the structure of this indicator in 2011 with neighbouring countries is shown in figure 1. The largest deviations in the structure was achieved by the indicator "gross investment in machinery and equipment." In the Czech Republic this indicator has share 69.3% of the total investment and in Germany 83.7%.

**Figure 1** Comparison of the structure of gross investments in the manufacture of food products in 2011

![Figure 1](source: Eurostat)

**Figure 2** Comparison of investments in tangible goods per one company in 2012 in the manufacture of food products (EUR million)

![Figure 2](source: Eurostat)
Comparison of average investments in fixed assets per one company in 2012 in the manufacture of food products with neighbouring countries is shown in the figure 2. The Czech Republic reaches the lowest values of this indicator (0.052 EUR million). This value represents only 31.7% of the value of this indicator for Austria. The international comparison shows the lack of financial resources for investments in the Czech food industry. In the Czech Republic in the manufacture of food products are the smallest investments per one company. This indicator also depends on the degree of concentration of the monitored production.

3.2.2. The analysis of investments in fixed assets in the manufacture of beverages

Between the years 2009 and 2010 decreased investments in fixed assets as a result of the economic crisis. In 2011, the economic recovery is reflected in the growth of this indicator in all neighbouring countries, with the exception of Slovakia. In 2012, this growth continued and reached the maximum value in Austria (annual growth 49.53%). In the Czech Republic this indicator in 2012 increased by 3.28% and the smallest growth this year was achieved in Germany (see table 3). Investments in fixed assets in the manufacture of beverages in 2012 exceeded the value of 2008 only in Austria and Hungary. Comparison of the index change of the indicator in 2012 in the Czech Republic shows greater growth in the manufacture of beverages than in the production of food products.

Table 3 Gross investment in tangible goods in the manufacture of beverages (EUR million)

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>The Czech republic</td>
<td>231.8</td>
<td>166.60</td>
<td>154.10</td>
<td>176.70</td>
<td>182.50</td>
<td>103.28</td>
<td>78.73</td>
</tr>
<tr>
<td>Germany</td>
<td>1146.50</td>
<td>927.00</td>
<td>919.40</td>
<td>1037.00</td>
<td>1050.80</td>
<td>101.33</td>
<td>91.65</td>
</tr>
<tr>
<td>Hungary</td>
<td>88.10</td>
<td>83.80</td>
<td>80.10</td>
<td>99.90</td>
<td>104.20</td>
<td>104.30</td>
<td>118.27</td>
</tr>
<tr>
<td>Austria</td>
<td>152.40</td>
<td>151.30</td>
<td>140.50</td>
<td>149.20</td>
<td>223.10</td>
<td>149.53</td>
<td>118.27</td>
</tr>
<tr>
<td>Poland</td>
<td>500.80</td>
<td>199.00</td>
<td>202.00</td>
<td>217.40</td>
<td>248.70</td>
<td>114.40</td>
<td>49.66</td>
</tr>
<tr>
<td>Slovakia</td>
<td>81.40</td>
<td>57.10</td>
<td>41.60</td>
<td>28.60</td>
<td>41.20</td>
<td>144.06</td>
<td>5.61</td>
</tr>
</tbody>
</table>

Source: Eurostat

In the following figure 3 is shown the development of the annual index of this indicator in the neighbouring countries and Hungary.

Figure 3 Index of indicator of gross investments in tangible goods in the manufacture of beverages

Investments in machinery and equipment represent 81.6% of total investments, investments in construction and alteration of buildings 17.2%, investments in land 1.0% and investments in existing buildings 0.2%.

In the manufacture of beverages is higher share of investments in machinery and equipment than in the production of food products.

Structure of investments in the international comparison is shows in figure 4. In 2011, the structure of investments in fixed assets differs in Hungary and Slovakia, where was higher proportion of investments in construction and alteration of buildings.
Investments in fixed assets per one company in 2012 in the manufacture of beverages is shown in figure 5. The Czech Republic in this indicator reaches higher values than Slovakia and Hungary, but only 25.55% of the maximum value for Austria. The amount of this indicator and its position in the international comparison shows a lack of financial resources for investments.

### 3.2.3 Summary

In the manufacture of food products in the Czech Republic in the years 2011 and 2012 is reflected the economic recovery by small growth of investments in fixed assets. But the value of this indicator in the Czech Republic did not get to its level as in 2008. In the years 2011 and 2012 grow this indicator in all neighbouring countries, with the exception of Slovakia. Indicator average volume of investment in fixed assets per one company for the czech production of food products in comparison with neighbouring countries reached the lowest values.

In the manufacture of beverages in the Czech Republic, the economic recovery also begins to show the growth of investments in fixed assets in the years 2011 and 2012. Change in the values of this indicator in the 2012 shows greater growth in the manufacture of beverages than in the production of food products. Another difference against the production of food products is a higher share of investments in machinery and equipment. The indicator "Investments in fixed assets per one company" in 2012 in the czech manufacture of beverages reached higher values than in Slovakia and in Hungary, but only a quarter of the maximum value for Austria.

The development, structure and international comparisons of investments in fixed assets show a lack of financial resources for investment in the czech food industry.
3.3 Discussion about the future of public funding of the Czech food industry

In the Czech Republic, companies as well as family firms can use various public sources for co-funding of investments. The public funding competence is divided between the Ministry of Industry and Trade and the Ministry of Agriculture. The Ministry of Industry and Trade supports long supply chain food processors like bakeries. Ministry of Agriculture (MoA) provides national and European support of investments in short supply chains, like milk processing, meat processing or processing of fruit and vegetables. In the past programming period 2007 – 2013, Ministry of Agriculture supported adding value to agricultural and food products (measure I.1.3). The measure responds to the strategic objective to improve the competitiveness of agri-food industry by focusing especially on the improvement of the performance of processing enterprises and on the development of new outlets for agricultural products, support for marketing of agricultural products, and the development of innovations within the agri-food production, namely through cooperation with persons taking part in research and development. In the new programming period (2014 – 2020), the support of investments in food processing will be available in two measures – No. 4 (Investments in physical assets) and No. 16 (Co-operation). According to the Regulation (EU) No. 1305/2013 of the European Parliament and of the Council of 17 December 2013 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) and repealing Council Regulation (EC) No 1698/2005, support within the measure No. 4 shall cover tangible and/or intangible investments which concern the processing, marketing and/or development of agricultural products covered by Annex I to the Treaty or cotton, except fishery products. So, support of investment in physical assets in the food industry has similar mission as sub-measure I.1.3.1 in the previous RDP (2007 – 2013). The total available public budget for investments in physical assets in the Czech food industry in the period 2014 – 2020 will be 85 363 324 EUR (2.8 % of the total RDP public budget of the Czech Republic). Support under the Co-operation measure No. 16 shall be granted in order to promote forms of co-operation involving at least two entities and in particular (selection):

- co-operation approaches among different actors in the Union agriculture sector, forestry sector and food chain and other actors that contribute to achieving the objectives and priorities of rural development policy, including producer groups, cooperatives and inter-branch organizations;
- the creation of clusters and networks.

So, the support of co-operation in the food industry has similar mission as sub-measure I.1.3.2 in the previous RDP (2007 – 2013). The total available public budget for co-operation in the Czech food industry in the period 2014 – 2020 will be 70 882 530 EUR, i. e. 2.3% of the total RDP public budget of the Czech Republic.

The national support of investments in the food industry in the Czech Republic is provided by the Ministry of Agriculture (support No. 13). Unlike RDP which supports small and medium enterprises, the national support is eligible for large companies. The national support focuses on improving the quality of processing of agricultural products listed in Annex I of the Treaty on the Functioning of the EU, increasing the competitiveness of food enterprises, respectively feed business in the European market, especially with regard to quality, safety and traceability of products, security of functionality, efficiency and quality systems. The national subsidies support

- modernization of production facilities, introducing new technologies,
- investments related to the diversification of production establishment into new additional products,
- investments related to a fundamental change in the manufacturing process of an existing establishment,
- the improvement and streamlining of procedures for the processing of agricultural products,
- investments to improve and monitor the quality of food products or feed,
- implementation environmentally friendly technology,
- implementation technologies related to the traceability of food products or feed.

The national support for large companies will coexist with RDP support in the new programming period. There are clearly defined competencies between the two supports.

4 Conclusions

Assessment of the FDI in the food sector in recent years has shown that the situation in 2013 compared with 2012 changed for the worse. Still, it appears desirable to input these investments in certain food production in order to continue in the technological "rearmament" improving the economic position of the sector and create conditions for stable growth.

The evaluation of the volume of investments in fixed assets expressed per one company (2012) reaches the manufacture of food products in the Czech Republic in comparison with neighbouring states the lowest values. In the same
indicator in the manufacture of beverages has a higher value than the Slovak Republic and Hungary, but only a quarter of the maximum value for Austria. Overall, development, structure, and international comparison of investments in fixed assets show a lack of financial resources.

The volume of subsidies in 2013 represents the amount of 836 mill. CZK (preliminary valuation) in comparison with the year 2012 in the amount of 990 mill. CZK, lower by 154 mill. CZK. The annual decrease occurred mainly subsidies from the RDP. It will be important to support investments in the food industry of RDP remained unchanged in the new programming period 2014 - 2020 and also continued support from national sources.

Acknowledgement
The support of the paper came from the research project of the Institute of Agricultural Economics and Information, project no.1290/2014.

References