

FACTORS INFLUENCING ECONOMIC PERFORMANCE OF THE SOUTH MORAVIAN REGION

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Abstract

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The paper deals with selected factors influencing economic performance of the South Moravian Region in the years 2003–2009. The economic performance of the region is evaluated by means of a contribution to the Gross Domestic Product of the Czech Republic. Considering the fact that the level of economic activity depends on the exploitation rate of production factors in the considered region, both development of soil exploitation rate and development of labour market indicators correlated with working force utilization are analysed, a number of employed adults and registered unemployment are taken into consideration. Attention is paid to the economic activity rate. The formation of the Gross Fixed Capital, which an assumption of favourable economic performance, and development of Gross Added Value are evaluated.

All the regions nowadays fumble with the negative impacts of the economic crisis. According to the analysis of the economic performance of the South Moravian Region and the analysis of the factors influencing this performance, it could be stated, that the development of the South Moravian Region could be evaluated quite positively.

economic performance, gross domestic product, gross value added, employment, gross fixed capital

Development of regions aimed at their cohesion and improving their economic performance is among basic objectives of the regional policy. Each region should have opportunities to support balanced development corresponding with its potential and specific interests. One of the conditions of successful development of the region is the level of economic performance. The level of the economic performance depends on the exploitation rate of economic factors in the selected region (Skokan, 2004). Considering the fact that soil, work and capital belong to factors influencing region economic performance, particularly the rate of soil exploitation, the rate of unemployment and the investment activity level associated with the formation of Gross Fixed Capital creating potential for favourable development of region economic performance in the future, are among factors which influence economic performance of the region. (Živělová, Jánský, 2008).

The economic development reflecting the quality of living in the region is a result of economic factors utilization. The economic basis of the region can be considered as a system composed of economic subjects and relationships among them and external surroundings. The performance of market forces results in concentration of economic activities in the regions, their development, advantages arisen and creation of new activities.

The objective of this paper is to analyse economic performance of the South Moravian Region in the years 2003–2009 and particularly selected factors influencing the development.

MATERIALS AND METHODS

The region contribution to the formation of the Gross Domestic Product of the state is considered to be the basic economic indicator of the region performance. The Gross Domestic Product is

defined as a market value of final goods produced in the particular country in a certain period of time. The products which are final results of the production process are considered to be final goods. The region contribution to the formation of the Gross Domestic Product of the Czech Republic is measured by means of indicators: region contribution to the GDP in the Czech Republic in percentage, region GDP per inhabitant in crowns, region GDP per employee in crowns and region GDP per inhabitant in PPS (Živělová, Jánský, 2007). The intensity of soil exploitation is rated by means of per hectare yield of selected crops. Attention is paid to the intensity of cattle and pig breeding, too. Employment rate is given by the proportion of working age adults employed to all adults over 15. The rate of economic activity is also evaluated, expressed in the proportion of employed and unemployed adults (working force) to the number of all adults over 15, rate of registered unemployment which expresses the percentage share of unallocated applicants to available working force, further on a number of employed adults and a number of job applicants. The Gross Value Added expresses the sum total of all added values of each sector. The Gross Fixed Capital Formation (GFCF) means restoration and acquisition of both new fixed tangible and intangible assets having a nature of long-term consumption. Development in a given time period is evaluated by means of indicators: region contribution to the GFCF in the CR in percentage, GFCF per inhabitant in crowns and GFCF per inhabitant in PPS.

Background data necessary for the assessment of mentioned indicators are drawn from the Czech Statistical Office data. Indicators are based on the

methodology of statistical analysis used by this Office.

RESULTS AND DISCUSSION

The South Moravian Region is characterized by important economic potential. Due to historical backgrounds, processing industry has a dominating position, the contribution of which to the Gross Added Value is of 21.2%. Agricultural production is also typical for the South Moravian Region, they are namely specialized fields such as market gardening and grape growing, the contribution of which is only of 2.7%. The contribution of building industry is of 8.7%, consumers' goods repairs of 8.7% and commercial services of 16.2% (*Statistická ročenka Jihomoravského kraje 2010*, s. 19; *South Moravian Region Statistical Yearbook 2010*, p. 19).

Competitive advantage of the South Moravian Region arises from its strategical position in the Central Europe connected to the main European public road system and railway network, from the fact that Brno keeps at disposal an international airport, there is Austria in the vicinity and good transport connection, especially among Brno and other parts of the Republic.

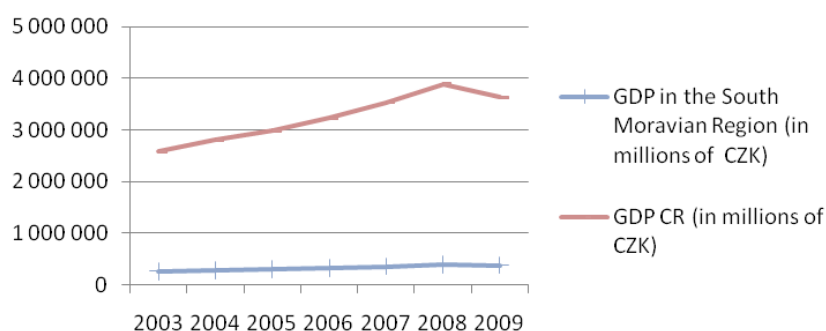
The contribution to the formation of Gross Domestic Product in the Czech Republic is of high value in comparison to other regions, as it follows from data in Table I.

The Gross Domestic Product created in the South Moravian Region kept increasing until 2008 (Fig. 1). This trend corresponded to the macro-economical development of the Czech Republic, where the growth rate was quite high until 2007 in comparison to other EU countries. However, in 2008 the growth rate dropped and in 2009 the CR Gross Domestic

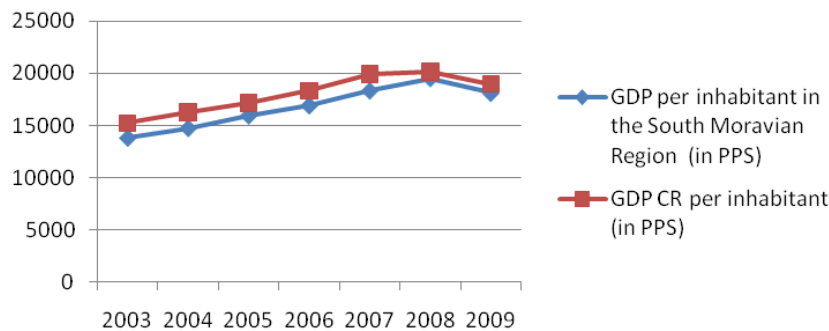
I: Gross domestic product indicators development

Indicator	2003	2004	2005	2006	2007	2008	2009
Gross Domestic Product (in millions of CZK)	264 721	284 441	299 839	325 128	357 437	393 516	379 669
Region share in GDP ČR (%)	10.3	10.2	10.2	10.0	10.1	10.7	10.5
GDP per inhabitant (in thousands of CZK)	235	252	265	287	315	344	330
GDP per inhabitant (in thousands of CZK)	605	648	671	734	774	793	673
GDP per inhabitant (in PPS)	13 809	14 744	15 951	16 923	18 336	19 528	18 112

Source: ČSÚ – <http://www.czso.cz/xb/edicniplan.nsf/p/641011-09>



1: GDP in the South Moravian Region and in the Czech Republic



2: GDP per inhabitant in the South Moravian Region and in the Czech Republic (in PPS)

Product decreased, and consequently all derived indicators. The CR GDP dropped by 63 094 million crowns, which makes a drop of 2%. All regions contributed to the decrease, including South Moravian Region with a decrease of 3.5% in 2009 compared to 2008.

The Region contribution to the Czech Republic GDP reached 10% in the entire evaluated time period which ranks the South Moravian Region among those with the highest share in the CR GDP. In 2009 the contribution of the Region even increased up to 10.5%. Only the Central Bohemian Region and the Capital of Prague show higher contributions. However, the Capital of Prague is a special region. The South Moravian Region also shows similar placement and development of evaluated indicators to the GDP formation and the region contribution to the CR GDP, including GDP per inhabitant adjusted according to currency purchasing power parity, which is an indicator important for international comparison and the Region eligibility assessment to draw financial resources from EU structural funds (Fig. 2).

The value of the Gross Domestic Product is influenced, as mentioned above, by exploitation rate of production factors in each region. Per hectare yields of selected crops are reflected in the *soil exploitation rate*, since it is one of the basic production factors. The indicator development is obvious from data in Table II.

The South Moravian Region belongs to those with developed agricultural production. Cereals, green maize, silage and rape are grown on the large scale, recently sunflower seed acreage has also increased, there is also a rich tradition in fruit, vegetable and grape growing. Owing to rather favourable natural

conditions the attained yields per hectare are of high quality. However, the year 2003 was the least favourable one for agricultural production, the lowest yields per hectare were shown with all crops, except for the sunflower seed having the lowest yield per hectare in 2004. On the contrary, the year 2008 appeared to be very favourable for most of the crops. The positive development of yields per hectare continued in the following year 2009, too. In the South Moravian Region there was an average per hectare yield of cereals of 5.51 t/ha in total, while the average yield in the Czech Republic was of 5.08 tons. The per hectare yield of rape attained 3.14 tons in the South Moravian Region, whereas the CR average was only of 3.01 t/ha. The per hectare yields of other evaluated crops were also above the Czech average, namely potatoes, sunflower seed, green maize and silage. The total volume of agricultural production has dropped due to a decreasing number of areas under crop despite favourable development of per hectare yields, rape is an exception to the rule.

In addition, the situation in animal farming is getting worse with a decrease in both hogs and cattle breeding. The number of cattle per 100 ha of farm land dropped from 21.4 in 2003 to 16.7 in 2009 and the number of hogs dropped from 149.2 to 84.3 pieces per 100 ha of farm land.

Although the South Moravian Region is generally considered to be agriculture oriented by tradition, the contribution of agricultural production to the gross added value indicating the contribution of individual sectors towards the formation of Gross Domestic Product is constantly decreasing and it currently constitutes only 2.7%. The percentage of people working in agriculture dropped as well, namely from 23 000 people in 2003 to fewer than

II: Yields of selected crops per hectare (in t/ha)

Indicator	2003	2004	2005	2006	2007	2008	2009
Cereals total	4.06	5.68	5.13	4.48	4.37	5.75	5.51
Potatoes total	15.00	21.47	24.44	21.5	20.29	22.88	23.48
Rape	1.45	3.62	2.85	3.15	3.02	3.08	3.14
Sunflower seed	2.01	1.43	2.41	2.19	2.12	2.59	2.41
Green maize and silage	27.55	30.26	35.69	31.99	30.61	34.10	37.71

Source: ČSÚ – <http://www.czso.cz/xb/edicniplan.nsf/p/641011-09>, MZe ČR

III: Development of measurements of job market

Measurement	2003	2004	2005	2006	2007	2008	2009
Level of economic activity (in %)	58.2	58.1	58.1	57.8	57.7	57.0	57.4
Employed total (in thousands of people)	509.1	509.1	513.9	515.7	532.1	537.0	529.7
Job seekers (in thousands of people)	65 454	66 207	63 692	55 230	44 239	43 063	65 944
Level of registered unemployment (in %)	11.45 ¹⁾	10.69	10.21	8.82	6.92	6.83	10.59

¹⁾ Different methodology of calculation

Source: ČSÚ – <http://www.czso.cz/xb/edicniplan.nsf/p/641011-09>

14 000 in 2009. The overall agricultural production in millions of Czech Crowns of usual prices is also decreasing. In contrast to 12 401 million CZK in 2005, it dropped to 12 235 million CZK in 2009, which is a decrease by 1.4%.

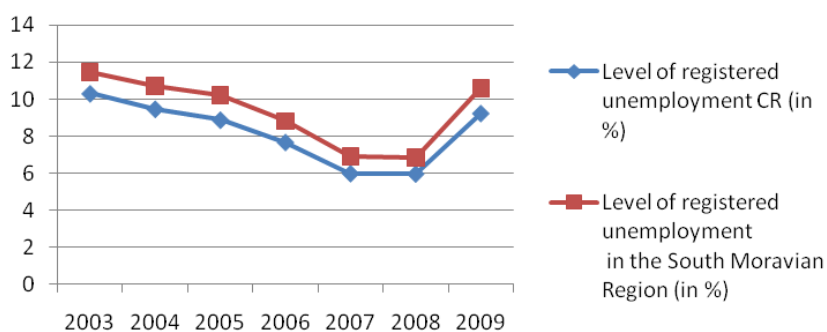
Another basic production factor – *workforce*, is characterized in Table III.

The provided information makes it clear that the level of economic activity is slightly decreasing. When compared to the development in the whole of the Czech Republic, where the value ranged from 59.2 to 58.8%, the development in the South Moravian Region corresponds, although it is under the average value of the Czech Republic (Fig. 3). According to ČSÚ (Czech Statistical Office) data, the number of full time employees decreased in 2009.

The level of registered unemployment in the South Moravian Region also corresponds to the country average. It decreased steadily from 2003 to 2008. However, it was above the average of the Czech Republic, which was 5.45% in 2008, while the South Moravian Region value reached 6.83%. In 2009, the situation at the work market significantly worsened. The average level of unemployment increased to 9.8% in the Czech Republic and to

10.6% in the South Moravian region. The level of registered unemployment is influenced by the different development in individual regions. The lowest level in the last year of the tracked period, i.e. in 2009, was in the districts with a good transport connection to companies in Brno, i.e. Brno-venkov, Blansko and Vyškov. On the contrary, the districts with the highest unemployment are Hodonín and Znojmo, where the unemployment rate exceeds 15%. The main reasons are closures or various transformations of big industrial companies, which used to be leading employers in these regions.

The development of registered unemployment rate and the number of employed people is influenced by business activity of a given region as well as by the business structure which ensures the needed job opportunities. The number of businesses in the South Moravian Region has been growing steadily – from 251 thousand in 2003 to 275 thousand in 2009. Trading companies have seen the highest growth, their number increasing by 33.5% in 2009 compared to 2003. On the other hand, the number of self-employed people decreased in 2009. The development of the number of people employed in different fields is shown in Table IV.



3: Level of registered unemployment in the South Moravian Region and in the Czech Republic (in %)

IV: Development of the number of people employed in selected fields (in thousands of people)

Measurement	2003	2004	2005	2006	2007	2008	2009
Employed total	509.1	509.1	513.9	515.7	532.1	537.0	529.7
Out of which:							
Agriculture, forestry, fishing	22.7	24.7	19.9	18.5	20.2	15.6	13.8
Industry and building industry	198.2	195.5	198.2	202.0	212.5	221.8	197.3
Market and nonmarket services	287.3	288.3	295.5	295.0	299.0	299.4	317.4

Source: ČSÚ – <http://www.czso.cz/xb/edicniplan.nsf/p/641011-09>

V: *Development of Gross Added Value*

Measurement	2003	2004	2005	2006	2007	2008	2009
Total Gross Added Value in the South Moravian Region (in millions of CZK)	240 679	254 306	270 955	293 374	321 267	336 280	341 145
Contribution of agriculture to the GAV (in %)	3.6	4.0	3.5	3.0	2.8	3.1	2.7
Contribution of manufacturing industry to the GAV formation (in %)	.	.	24,2	23,0	24,4	22,9	21,2
Contribution of building industry to GAV formation (in %)	7.7	7.6	7.8	8.0	8.0	8.3	8.7
Contribution of services to GAV formation (in %)	.	.	61,5	62,5	61,4	59,6	61,5

Source: ČSÚ – <http://www.czso.cz/xb/edicniplan.nsf/p/641011-09>

VI: *Development of measurements of Gross Fixed Capital Formation*

Measurement	2003	2004	2005	2006	2007	2008	2009
Total Gross Fixed Capital Formation of the region (in millions of CZK)	84 469	69 823	90 874	86 057	95 504	97 459	.
Region GFC contribution to total GFC of the country (in %)	9.9	10.0	10.6	10.8	10.7	.	.
GFC per capita in the region (in CZK)	74 837	61 821	80 400	76 090	84 114	85 220	.

Source: ČSÚ – <http://www.czso.cz/xb/edicniplan.nsf/p/641011-09>

Different fields found in the region show different productivity of labour. The amount of labour is, to a certain degree, characterized by Gross Added Value, the value of which is influenced by appraisements of outputs, inputs and the efficiency of economic activity. The Gross Added Value indicates, both directly and indirectly, the level of modernization, the efficiency of technology use and the productivity of labour (Živělová, Jánský, 2007). The Gross Added Value measurement is the difference between the market price of goods and services and the price of inputs bought from other fields. It is the difference between total goods and services production taken in usual prices and the intermediate consumption in consumer prices. The Development of Gross Value Added produced in the region and the contribution of selected fields to its formation is shown in Table V.

Different fields contribute to the Gross Added Value to a different degree. The contribution of agriculture to the formation of Gross Added Value is decreasing, which corresponds, as mentioned above, to the overall development in agriculture. It is also related to the decrease in economic subjects which show agriculture, forestry and fishing as the main activity according to CZ – NACE criteria. In 2009, the number of these subjects nearly halved compared to the previous year 2008 (from 17 541 to 9 728). The number of people employed in agriculture is also decreasing as shown in Table IV.

The share of building industry is growing, including 2009 when it showed a decrease in total production in connection with the overall economic crisis. Companies providing services have a big share, which is, again, in accordance with the overall development. Based on the provided data, the contribution of other activities, which also

contribute to the Gross Added Value in the South Moravian Region but were not part of the survey, can be assumed.

The economic performance of a region is also strongly influenced by the level of investment activities which contribute to the restoration and expansion of the last basic production factor, i.e. capital in the material form, mainly fixed capital. The level of investment activities is tracked with the help of these measurements: Gross Fixed Capital in total, the contribution of Gross Fixed Capital of a region to the total Gross Fixed Capital of a state and Gross Fixed Capital per capita of a region (see Table VI).

In comparison with other regions of the Czech Republic, the investment activity of the South Moravian Region is slightly above the average. Up to 2006, the development of the levels of all the given measurements indicates steady investment activities, which was not typical of all the regions. Despite the partial recovery starting in 2007, it can be assumed investment activities are given little attention.

CONCLUSION

The development of contribution of the South Moravian Region to the Gross Domestic Product of the Czech Republic, assessed with the use of selected measurements indicates that the South Moravian Region is among the most efficient regions in the Czech Republic. This status is related to its area and population. However, it is also connected to the result of exploitation rate of production factors, which varies in different regions.

In spite of the growth of intensity of land exploitation derived from the growth of yield

per hectare of selected crops, agriculture is a sector which does not contribute to the positive development of economic performance of the region. Given the decreasing areas under crop of as well as declining numbers of agricultural crops and farm animals, the total volume of agriculture production is decreasing.

In the field of manpower in the region, the relatively favourable development up to 2008 changed significantly in 2009 and there was a steep rise in unemployment. The level of unemployment varies in different districts in the South Moravian Region. It is related mainly to business activities of a given district and consequently with the number of job opportunities. The districts most affected by unemployment are Hodonín and Znojmo.

Despite the unfavourable development in the economic field, in general the Gross Added Value

formed in the South Moravian Region grew in the given time period. Nevertheless, the pace of growth is slowing down. The growth of Gross Added Value was mainly due to manufacturing industry, building industry and services.

The favourable development in the formation of Gross Added Value was positively reflected in the formation of Gross Fixed Capital up to 2008. Data for 2009 is not available.

All regions have recently been dealing with the negative effects of the economic crisis. The results of the analysis of economic performance of the South Moravian Region and the factors influencing this development indicate that the development in the South Moravian Region can be considered as relatively positive.

SUMMARY

The objective of this paper is to analyse economic performance of the South Moravian Region in the years 2004 and 2009 and particularly selected factors influencing the development. The region contribution to the formation of the Gross Domestic Product of the state is considered to be the basic economic indicator of the region performance. The region contribution to the formation of the Gross Domestic Product of the Czech Republic is measured by means of indicators: region contribution to the GDP in the Czech Republic in percentage, region GDP per inhabitant in crowns, region GDP per employee in crowns and region GDP per inhabitant in PPS. The rate of economic activity, the Gross Value Added and the Gross Fixed Capital Formation are also evaluated.

The Gross Domestic Product created in the South Moravian Region kept increasing until 2008. However, in 2008 the growth rate dropped and in 2009 the CR Gross Domestic Product decreased, and consequently all derived indicators. The region contribution to the Czech Republic GDP reached 10% in the entire evaluated time period which ranks the South Moravian Region among those with the highest share in the CR GDP.

The level of economic activity is slightly decreasing. When compared to the development in the whole of the Czech Republic, the development in the South Moravian Region corresponds, although it is under the average value of the Czech Republic.

The level of registered unemployment in the South Moravian Region also corresponds to the country average. It decreased steadily from 2003 to 2008. In 2009 the situation at the work market significantly worsened. The amount of labour is, to a certain degree, characterized by Gross Added Value. Different fields contribute to the Gross Added Value to a different degree. The contribution of agriculture to the formation of Gross Added Value is decreasing. The share of building industry is growing, companies providing services have a big share.

The economic performance of a region is also strongly influenced by the level of investment activities. In comparison with other regions of the Czech Republic, the investment activity of the South Moravian Region is slightly above the average.

All the regions nowadays fumble with the negative impacts of the economic crisis. According to the analysis of the economic performance of the South Moravian Region and the analysis of the factors influencing this performance, it could be stated, that the development of the South Moravian Region could be evaluated quite positively.

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