### 1. Basic information on the Moravian and Silesian Region

The territory of Moravia and Silesia, of which substance is the Ostravsko-Karvina industrial agglomeration, became one of the largest industrial centres of Middle Europe; one can observe the fact that it has held its position to this day. From the historical point of view, the main reasons for a rapid development of the industrial production can be regarded the extensive mineral resources, above all rich bituminous coal resources, the advancement of the railway transport at the turn of the nineteenth and twentieth centuries. At the moment, the Moravian and Silesian Region is going through the restructuring process, which is on one hand aimed at curtailing the role, which heavy industry plays in this region, on the other hand, at enforcing the position of the particular branches of the manufacturing industry and branches of services.

### 1.1. Main demographic and geographical data about the Moravian and Silesian Region

Towards January 1st 2000 arose, on the strength of the constitutional law no. 347/1997of the Coll. Notice, the Moravian and Silesian Region in the area of Moravia and Silesia (thereinafter also the MSR), which is, according to the resolution of the government of the Czech Republic no. 706 of 26th October, 1998, defined as a statistical unit NUTS 3 and simultaneously as a statistical unit NUTS 2 – Ostravsko.

	surface area km²	average state of inhabitants			density of inhabitants in km <sup>2</sup>	number of municipalities		
	1999	1991	1999	change	1999	1991	1999	
CR	78 864	10 308 682	10 278 098	-30 584	131	5 768	6 244	
MSR	5 555	1 287 821	1 281 410	-6 411	232	273	300	
- region's share in the	7,04	12,49	12,47			4,73	4,80	
CR (in %) - from that:								
Bruntál	1 658	108 965	105 681	-3 284	66	67	71	
Frýdek-Místek	1 273	227 522	228 291	769	179	72	75	
Karviná	348	284 558	283 128	-1 430	818	15	16	
Nový Jičín	918	158 767	161 396	2 629	173	45	57	
Opava	1 144	180 638	181 651	1 013	158	73	80	
Ostrava	214	327 371	321 263	-6 108	1 530	1	1	

Table No. 1-1 – The basic characteristics of the Moravian and Silesian Region

where: MSR - the Moravian and Silesian Region

Source: Czech Statistical Office

### Natural conditions

The Moravian and Silesian Region lies in the north-east part of the Czech Republic, in the north it borders on Poland, in the east on Slovakia, in the south on the Zlinsko Region and in the south-east on the region of Olomouc. The area of the Moravian and Silesian Region amounted to  $5.555 \text{ km}^2$  in 1999, it is 7,04% of the Czech Republic's territory, what in comparison with the other regions ranks the MSR 6th in the Czech Republic. The farmland participated in the total area of the region approximately 51,44%, what in absolute figures presents the value of 2.856,9 km<sup>2</sup>, from which 64,20% amounted to the proportion of the farmland.

The region, which we are studying, is delimited by the two mountain massifs in the east and west. The highest mountain range in the east part of the MSR are the Moravian-Silesian Beskydy mountains, with their highest peak - Lysá Hora, which is 1.323 m high above the sea level, and it is a part of the Front mountains, which are finished by the furrows of Frenštát and Třinec, which divide the Podbeskydska downs. The second highest mountain range in the Czech Republic stretches in the west of the MSR – the Jeseniky mountains, which are a natural dividing line between Moravia and Silesia. Its highest mountain, and at the same time the highest mountain of the MSR is - Praděd, of which peak is 1.491 high above the sea level. The massif of the Jeseniky mountains, the Hrubý and Nízký Jeseník, the latter named mountain units are a part of the MSR. The Moravian Gate can be found amid the two mountain ranges, which is a narrow corridor connecting the south parts of Moravia with the Polish lowland.

The climate of the region can be characterized as a climate of the northern mild belt. Should we proceed from the statistical data, so we can observe that the mountain massifs in the east and west of the region, belong to the colder parts of the region, where an average annual temperature does not exceed 6°C and 150 days of the year can be called frosty. Among warmer parts can be ranked the central part of the MSR, where average annual temperatures reach 9°C and the number of frosty days comes close to forty.

The larger part of the region, an exception are only areas in the south-east of the region, comes under the river basin of the Odra River, into which confluents both flow from the area of the Hruby Jesenik, and the Moravian-Silesian Beskydy mountains, as a consequence of which the Odra River forms a natural axis, of the region we are studying.

### **Population**

1.281.410 inhabitants lived in the territory of the MSR in 1999, which presents 12,47% of the entire population of the Czech Republic, the number of inhabitants stagnated in essence in the years of 1991-1999, when an average rate of this indicator reached a value of -0,085%, which is a comparable data with the Czech Republic as a whole (an average rate of the population increase reached -0.042% in the observed period). The comparison of the population increase in the MSR and in the Czech Republic shows the picture no. 1-1. Should we proceed from the assumption of the number of population and area, then we can note that this region, in particular the area of the agglomeration of Ostrava and Karvina, belongs to the most densely populated areas of the Czech Republic. 232 inhabitants lived per one square meter in 1999 in the MSR, which is 1,8 times more than the indicator rate in the Czech Republic and roughly two times higher than the number of inhabitants per one square kilometre in comparison with the average EU-15 as a whole. From the national point of view, it can be observed, that the region we are studying, is marked out by a considerable heterogeneousness, represented by a considerable percentage of a Slovakian (5,36%), Polish (3,62%) and German (0,3%) national minority. There is a visible and distinct share of inhabitants of the Romany origin in big cities.



Picture No. 1-1 - Comparison of the population increase in the MSR and in the Czech Republic

Source: an own calculation on the basis of the Czech Statistical Office

### Administrative structure

From the administrative point of view, the MSR is divided into six districts, which form the districts of Bruntál, Frýdek-Místek, Karviná, Nový Jičín, Opava and Ostrava. 300 independent towns and districts could be found in the territory of the MSR in 1999, that is only 4,80% of the total number of towns and districts in the Czech Republic. The MSR is ranked tenth in comparison with the other districts, and surpasses only the district of Zlinsko, Liberecko, Karlovarsko and the capitol Prague.

Should we proceed from the data concerning district groups of a size according to the inhabitants towards 31st December, 1999, we can note, that in the districts up to 499 inhabitants, 1,80% of inhabitants lived in the district (in the Czech Republic as a whole it is 8,32%), in the districts from 500 to 1.999 inhabitants equalled this share 12,73% (CR – 17,26%) and in the districts from 2.000 to 9.999 inhabitants lived 18,66%, what is, in comparison with the Czech Republic 1,05% less.

From the given above, it is evident that a predominant majority of inhabitants of the MSR, that is 66,81%, live in the sixteen towns with the population of more than ten thousand inhabitants, this data exceeds the Czech average by 12,10%. Moreover, one should note, that out of that number, 321.263 inhabitants live in the district urban centre Ostrava (the share of Ostrava in the total number of inhabitants above 10.000 in the district amounts to 25,07% and in the number of inhabitants in the towns above 10.000 inhabitants then it is 37,53% yet).

Since 1997, the Euroregions have been arising, which can be defined as areas of the across the border cooperation, which arose on the basis of the mutual agreement of two or more countries. The districts of the MSR are represented in:

- ✓ the Czech-Polish Euroregion Praded, which was born in 1997 and which includes on the Czech side the districts of Bruntál and Jeseník,
- ✓ the Polish-Czech Euroregion Těšínské Slezsko, which arose in 1998 and to which belong Karviná and Frýdek-Místek on the Czech side,

- ✓ the Czech-Polish Euroregion Silesia, which originated in 1998. On the Czech side its parts are the districts of Opava, Nový Jičín and Bruntál.
- ✓ and the Czech-Polish-Slovak Euroregion Beskydy, which arose in 2000, and which includes on the Czech side the districts of Frýdek-Místek and Karviná.

### 2. Basic information on the economy of the MSR

### Economic potential of the region

As it has been already noted in the beginning, the region of the MSR can be defined as one of the largest industrial centres of middle Europe, the region has undergone the substantial restructuring process in recent years, which is connected with a proportional adverse economic process. In spite of everything that has been stated, it is necessary to note that the MSR still remains one of the most significant industrial regions of the Czech Republic.

	1993	1994	1995	1996	1997
gross added value in b. p. (in mil. CZK)	101 771	121 194	144 777	167 935	173 352
_gross added value in c. p. (in mil. CZK)	114 866	137 187	163 389	189 873	195 536
- region's share in the CR (in %)	11,4	11,9	11,8	12,1	11,7
_GDP (mil. ECU)	3 365	4 007	4 709	5 510	5 442
GDP in PPS (mil. ECU)	11 186	12 316	13 509	14 962	14 754
GDP per one inhabitant (CZK)	88 767	105 927	126 210	147 364	151 977
GDP per one inhabitant (ECU)	2 600	3 094	3 638	4 277	4 230
GDP per one inhabitant (PPS)	8 644	9 510	10 435	11 613	11 467
GDP per one inhabitant (CZK) (CR = 100)	91,3	95,3	94,4	96,7	93,8
GDP per one inhabitant (PPS) (EU-15 =	54,3	57,1	58,9	63,0	59,3
	,			,	
GDP per one inhabitant (PPS) (EUR-25 = 100)			68,4	72,9	68,6
GDP per one inhabitant (PPS) (CE-10 = 100)			160,1	165,2	156,2

Where b.p. – base prices

c. p. – current prices

PPS – Purchasing Power Standard

CE-10 – a group of ten Middle-European candidate countries requiring the EU entry (Bulgaria, the Czech Republic, Hungary, Poland, Romania, Slovakia, Slovenia, Estonia, Lithuania, Latvia)

EUR-25 - a group including the EU-15 and CE-10

### Source: Czech Statistical Office

Should one proceed from the data published by the Czech statistical office, then it can be found out, that there was a GDP produced in the MSR in 1997 in the extent of 195.536 mil. CZK, what accounts for 11,7% of the Czech Republic's GDP in the same year. The MSR was placed second within the Czech Republic, and it was only outdone by the capitol Prague,

where the GDP level in the current price reached a value of 369.201 mil. CZK in this year (22,12% of the Czech GDP), that is almost 1,8 multiple of the GDP of the MSR.

To significant indicators, which enable to assess the economic level of the country or region, belongs the production performance of economy, which can be expressed either in the nominal<sup>1</sup> or real GDP relations<sup>2</sup>. Should we analyse the real production performance of the economy of the MSR in relation to the EU-15 as a whole, then it can be noted, that in the years of 1996 and 1997 its level grew towards the Union, and especially in the years of 1996 and 1997, the MSR reached - in comparison with the EU-countries - the third highest production performance within the Czech Republic. The MSR is surpassed only by the capitol Prague at that time, of which HDP in PPS reached 119,8% of the EU-15's level in 1997, and the region of Plzen, where in the same year the same studied indicator reached 62,6%.

In 1998, the MSR participated in the total export of the Czech Republic 9,68%, thus being placed third in the CR after the region of Central Bohemia (the export share equals 17,58%), and Prague (with a share of 17,33%). We are likely to come to different conclusions, if we analyse the export share of the region in the GDP, which was made in the region. In this case, the MSR is ranked among the group of regions with a lower export performance, surpassing thus only the region of Olomouc, Brno, Kralovy Hradec and Prague.

	1995	1996	1997 <sup>1</sup>	1998
region's export share in the CR (in %)	11,56	10,92	10,38	9,68
region's export share in the region's GDP	43,02	34,09	38,35	
region's CR export share in the Czech GDP	41,61	37,82	43,01	46,72

Note: <sup>1</sup> – region's export share in GDP is estimated on the basis of the materials available

Source: The Development Programme of the district of Ostrava – Appendix no. 1 and an own calculation

If we compare the tax capacity of the MSR with the capacity of the other regions of the Czech Republic, it can be noted then, that the MSR was placed sixth in 1999, whereas compared with the region of Plzen, the tax capacity of the MSR was about 12 percentage points lower and compared with Prague, only by third percentage points.

Table No. 2-3 – Tax capacity of the MSR	(in CZK/inhabitant)
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1 0					
	1995	1996	1997	1998	1999
tax capacity	5 671	5 928	5 815	6 335	6 374

Source: The Development Programme of the district of Ostrava – Appendix no.1

# Employment and labour market

If we proceed from the data of the selective examination of the labour force, then it can be observed, that in the year of 1999, there were employed 381.717 employees in the MSR, what means that in comparison with the year of 1991, the overall employment decreased by 26,43%. As it is obvious from the table no. 2-5, that the dominant branch of the region is industry (in the years of 1993-1998 this branch employed 2/5 employees of the region), and in spite of this, the branch achieved - in the studied period of time - the highest drop of employment (the number of employees by 5,4 percentage points). If the development of national economy itself is to be analysed, then it can be observed, that the highest fall of

employment achieved mining, metal processing, chemical and textile industries in the years of 1993-1998.

	1991	1992	1993	1994	1995	1996	1997	1998	1999
CR	4,58	1,70	3,43	2,17	1,74	2,22	4,32	10,28	13,89
MSR	6,96	4,02	13,38	5,98	3,74	5,06	9,09	33,57	55,11
- advance of the MSR (in %)	51,94	137,05	289,68	175,08	115,07	128,18	110,48	226,57	296,88

Table No. 2-4 – The number of applicants for one free job in the MSR and the Czech Ro	epublic
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Source: Czech Statistical Office and an own calculation

Among the branches, which achieved the highest growth of employment in the studied period, can be ranked the branch of commerce, reparation of motor vehicles and consumer goods with 2,2%, public administration, defence and social welfare with 1,3%, school system with 1,1% and banking and insurance industry, where the employment rose by estimated one percentage point. The average rate of the involvement in the region reached, in accordance with our data, round 65%.

	1993	1994	1995	1996	1997	1998
agricultural, silviculture and fishery	4,8	3,9	4,0	4,2	3,9	3,4
industry	43,9	40,8	40,1	39,8	39,7	38,5
building	7,9	7,8	8,1	8,4	7,7	8,6
commerce, repairment of motor vehicles and consumer goods	10,2	12,3	12,1	11,9	12,6	12,4
restaurants and accommodation	2,6	2,4	2,8	2,8	3,0	3,2
transport, storage, and connections	7,9	6,7	7,2	7,6	7,6	7,7
banking and insurance industry	0,9	1,4	1,1	1,3	1,3	1,8
real estate, rental, service, R&D	3,1	4,0	4,0	3,6	3,9	3,5
public administration, defence and soc. welfare	3,7	4,2	4,3	4,9	4,8	5,0
school system	5,6	6,8	6,9	6,3	6,7	6,7
public health, veter. and soc. activity	5,4	5,7	6,1	6,0	5,7	5,4
the other public., soc. and personal services	4,0	3,9	3,2	3,2	3,0	3,7
others (non-specified)		0,0	0,0	0,0	0,1	0,1

Table No. 2-5 – Employment in the MSR according to the branch (v %)

Source: Czech Statistical Office

Since the very beginning of the restructuring process, the region of Moravia and Silesia has ranked among the top as far as the number of the unemployed is concerned. At this moment, it is necessary to note, that the unemployment rate maintained in the years of 1991-1997, say at a relatively low level – the advance against the nationwide made 2,3 percentage points – then, in the years of 1998-1999, the differences began to deepen substantially - the advance of the unemployment rate in the MSR against the average unemployment rate in the Czech Republic was round 4,8%).

This development is manifested even more pronounced at the moment, when we compare the average unemployment rate in the Czech Republic with the values of the indicator for the particular districts of the studied region (see the table no. 2-6).

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
CR	4,1	2,6	3,5	3,2	2,9	3,5	5,2	7,5	9,4	8,8
MSR	6,2	4,0	6,2	6,0	5,1	5,7	7,9	11,5	14,9	
- from that:										
Bruntál	8,1	6,0	8,7	6,9	5,8	6,6	8,7	11,4	15,6	17,2
Frýdek-Místek	6,4	3,4	5,7	5,5	4,1	4,7	7,2	11,4	14,8	14,1
Karviná	6,9	4,2	7,4	6,7	6,6	7,8	10,4	13,8	18,2	18,0
Nový Jičín	6,1	4,9	7,8	7,5	5,9	5,6	6,9	9,5	12,2	12,4
Opava	7,4	3,9	6,0	4,2	3,3	3,7	5,8	8,8	10,8	10,7
Ostrava	4,3	2,9	5,1	5,6	4,8	5,4	7,5	12,0	15,9	16,6

Table No. 2-6 – The unemployment rate in the MSR and the Czech Republic (in %)

Source: Czech Statistical Office and Ministry of Labour and Social Affairs in CR

One of other negative features, which push forward at the labour market in the MSR, is the offer of job opportunities. If we proceed from the data shown in the table no. 2-4, then one can come to a conclusion, that there has been a constant increase in the applicants' number for one free job since 1995 in the MSR – the applicants' number was rising about thirty percentage points annually on the average in the years of 1992-1999. Whereas 3,74 applicants fell to one free job in 1995, four years later it was 55,11 applicants, which means an increase by 1.374%. Moreover, it is necessary to add, along with the ongoing restructuring process of large industrial companies, there is a sharp increase in the unemployment rate to be expected in the next years to come, what can result in the magical limit of 20% of the unemployed. In spite of the stated above, one must note, that there is some incongruity between supply (employer's requirements) and job demand (job applicants' qualification structure).

Picture No. 2-1 – The comparison of the unemployment rate in the MSR and the Czech Republic



Source: Czech Statistical Office

One of the most significant factors, which considerably influences the development of employment in the market structure economy, and also the unemployment, can be considered the height of the salary. Generally, one can assume that since the beginning of the 90's, the MSR has been losing its privileged position – whereas in 1991, the employees in MSR had the highest monthly gross income within the Czech Republic (their advance was against the nationwide average 8,84% and in comparison with the capitol Prague – it was 0,81%), the

height of the gross income corresponded to the nationwide average in 1999, MSR was outdone by the capitol Prague, in this case by whole 28,14 percentage points, and so by the region of Central Bohemia., by 0,5 percentage point.

	1991	1992	1993	1994	1995	1996	1997	1998	1999
CR	3 789	4 585	5 817	6 869	8 166	9 679	10 696	11 705	12 651
MSR	4 124	4 951	6 126	7 076	8 357	9 831	10 719	11 601	12 531
- advance of the MSR (in %)	8,84	7,98	5,31	3,01	2,34	1,57	0,22	-0,89	-0,95

Table No. 2-7 – Average gross monthly income in the MSR and the Czech Republic (in CZK)

Source: Czech Statistical Office and own calculation

# **3.** Structural changes as a result of the economic, social and cultural change process of the MSR – an approach according to the regulatory theory

# Structural changes as a result of the economic changes of the region

If we analyse the development of the industrial production in Moravia and Silesia, then it can be observed, that this region held the first position as to the volume of the gross industrial production at the beginning of the structuring process within the Czech Republic. At that time, almost all industrial branches were represented, which are commonly defined as the branches of heavy industry, that is coal mining and metallurgy. To other branches, which could be found in this region, belonged energy, engineering, chemical and pharmaceutical industry, electrical engineering, paper industry, textile and food industry.

If we proceed from the above stated, then it can be noted, that the form of the branch structure of economy of the MSR from the requirements' point of view, which are still being developed within the market economy, proves to be completely unsatisfactory, which was reflected in starting up the restructuring process at the beginning of the 90's, which has been under way with a greater or smaller intensity up to now. The process concerns the most distinctly the preferred branches – coal mining and metallurgy. For that reason, we are going to deal with these branches more closely.

Since the beginning of the 90's, coal mining has been undergoing the reduction process in the agglomeration of Ostrava and Karvina, what is connected for one thing with the stopping of coal mining in the Ostrava district, and with the stopping of coal mining in the selected mines of the Karvina district. This process has a distinct influence on the production of the particular branch, which was at the level of 14mln.tons in 1998, what in comparison with the year of 1989 means a fall by round 38 percentage points, and so it does on the employment, when in 1998 the particular branch employed 65 thousand employees less, as it was the case in the year of 1989. From the given follows, that in the studied period the employment dropped in the particular branch by whole 61,91%. Besides, it is necessary to note, that in consequence of the excavation and further coal processing, a distinct devastation of the landscape has taken place in the recent past years – according to the experts' opinion it is necessary to reconstruct a landscape with an area of 14 thousand hectares in the years to come – which can manifest itself as a limiting condition for further development of the economic activity in the region.

A similar slump of the production, as it was in case of coal mining, experiences metallurgy. If we proceed from the available statistical materials, it can be noted, that at the beginning of the 90's, a reduction of steel production took place, which resulted afterwards in the 30% decrease of production of this commodity in the years of 1989-1993. This relatively

swift turn was followed by the stabilization period, so the current steel production ranges at 80% of its level in the year of 1989. As it was in the previous example, also in metallurgy a considerable fall of employment takes place in the studied period in the MSR.

Ű	1993	1994	1995	1996	1997
total gross added value	100,0	100,0	100,0	100,0	100,0
- agriculture and silviculture	3,1	2,6	2,8	2,7	2,6
- extraction of raw materials	5,1	5,9	8,6	10,0	8,0
- processing industry	34,4	32,5	34,3	32,8	36,2
- prod. and distrib. of electr., heat and water	5,4	5,6	5,3	4,3	4,0
- building	6,3	6,8	7,4	7,6	8,2
- commerce, repairs of consumer goods	11,1	13,0	9,1	11,0	8,5
- restaurants and accommodation	1,2	0,8	1,7	1,6	1,3
- transport, storage, post offices, telecomun.	6,7	6,8	7,8	7,4	7,5
- bank and insurance industry	4,6	3,8	2,9	2,4	2,4
- commercial services	9,6	9,4	7,0	6,7	7,9
- public administration	4,0	4,0	4,0	4,2	4,1
- school system	3,4	3,6	3,3	3,5	3,5
- heath system, veter. and soc. activity	3,7	3,5	3,6	3,3	3,7
- other public, soc. and person. services	1,6	1,7	2,2	2,4	2,0

Table No. 3-1 – Structure of the gross added value in the MSR (in basic prices, %)

Source: Czech Statistical Office

In spite of everything that has been said above, one can observe, that industry still plays a significant role in the MSR, which demonstrate the data shown in the picture no. 3-1 and in the table no. 3-2.

# Picture No. 3-1 – Comparison of the particular branches' share in the gross added production in MSR and the Czech Republic



Source: an own calculation on the basis of the data of the Czech Statistical Office

	1993	1994	1995	1996	1997	average
processing industry						
- Czech Republic	25,8	25,2	26,0	25,7	28,6	
- advance of the MSR	8,6	7,3	8,3	7,1	7,6	7,8
excavation of raw materials						
- Czech Republic	1,2	1,6	2,2	2,5	2,0	
- advance of the MSR	3,9	4,3	6,4	7,5	6,0	5,6
commercial services						
- Czech Republic	12,9	12,5	11,6	11,6	12,3	
- advance of the MSR	-3,3	-3,1	-4,6	-4,9	-4,4	-4,1
banking and insurance industry						
- Czech Republic	7,3	6,3	4,7	4,1	4,1	
- advance of the MSR	-2,7	-2,5	-1,8	-1,7	-1,7	-2,1
commerce, repairs of consumer goods						
- Czech Republic	12,2	14,3	11,4	13,2	11,6	
- advance of the MSR	-1,1	-1,3	-2,3	-2,2	-3,1	-2,0

Table No. 3-2 – Comparison of the share of the particular branches in the MSR and the Czech Republic in producing the gross added value (in basic prices, %)

Source: Czech Statistical Office and an own calculation

In the first half of the 90's underwent the region's economy of Moravia and Silesia, as well as the whole Czech Republic, through a swift privatisation process, which resulted then in an increasing number of private entrepreneur's subjects. Regardless of that, there are still large 'state-half-owned' companies at the moment in MSR, of which the restructuring process and following that privatisation haven not been finished yet.

Table No. 3-3 – Basic social indicators of the MSR

company	investor	investor's country of origin
Alpine IPS	Apline Salzburg	Austria
Autopal, s.r.o.	Ford Motor Company	USA
Biocel, a.s.	Stratton Investments	Cyprus
Czech slag	The Slag Reduction Co.	France
Galena, a.s.	lvax	USA
Hayes Lemmerz Autokola (Nová huť)	A. Hayes Lemmerz	USA
Lemos Ostrava	Italian	Italy
MEZ Moravia, a.s.	Siemens	Germany
Moravskoslezské teplárny, Teplárny Karviná	Dalkia	France
Nová huť, a. s.	FC Kaiser	USA
Opavia, a.s.	Danone-Nestlé	France – Switzerland
Ostroj, a.s Hansen	Hansen	Germany
Tabák, a.s.	Philip Morris	USA
Witzenmann	Witzenmann	Germany
Železárny a drátovny Bohumín, a.s.	Bekaert	Belgium

Source: www.investfor.cz/czech/ostrava.htm

As problematic can be named the relatively low representation of foreign investors in the region. If we begin to analyse the causes of that state, then it can be noted, that to one of the reasons for low investment activities of foreign economic subjects in the MSR, belong the closeness of special economic zones, where on the Polish side more convenient offers are offered to foreign investors – Poland started earlier to exert investments incentives to attract investors – and the internection of the region to the motorway net in the Czech Republic and an insufficient or entirely missed region marketing. The list of the most significant investors in the MSR shows table no. 3-3.

# Structural changes as a result of the social and cultural changes of the region

### Education

As it is evident from the picture no. 1-1 from 1994, that it has come to a constant decrease in the inhabitants' number, which resulted then in the reduction of kinder gardens and basic schools. In comparison with the school year of 1994/95, the number of kinder gardens fell from 770 to 661 in the school year of 1999/2000, that is by 14,16%, and the number of basic schools dropped from 491 to 471 schools, that is by 4,07%. Some changes are being made in the area of secondary schools, where the reorganization of teaching process is going on, with the main aim of adjusting secondary schools according to the requirements coming from the regional labour market. In the school year of 1999/2000, altogether 56.117 students studied at 38 grammar schools, 87 at vocational schools and 57 at training institutions, which is by 8,70% less than in the school year of 1994/95.

Within the MSR three public universities are active -(1) The Ostravska Univesity, which in particular educates university students both in the area of natural and social-science studies, (2) The Silesian University in Opava, which offers both natural-science studies and human studies, and also studies in the area economy's science, (3) Vysoká škola báňská – The Technical University in Ostrava, which offers education both in the field of technical sciences, and in the economy's studies – and one private university, which is The University of Enterprise, a.s., offering education in the field of economy's sciences.

	1996/97	1997/98	1998/99	1999/2000
MSR	18 526	20 376	21 777	22 756
- from that:				
Ostravská University	4 461	4 690	4 746	5 090
Silesian University in Opava	2 715	2 952	3 271	3 523
VŠB – Technical University in Ostrava	11 350	12 734	13 760	14 143
- from that (in %):				
technical sciences	41,43	43,33	44,21	43,77
economic sciences	27,19	26,63	26,38	26,31
human, social and natural and other sciences	31,37	30,04	29,42	29,92

Table No. 3-4 – Num	per of students	s at public and	private universities	in the MSR	in the particular
academic years					

Source : School Office Ostrava and an own calculation

If we sum up the main trends, which push forward in the MSR, then the following can be noted: (1) 4,4% pupils attend special schools, what exceeds not only the Czech Republic average, which is 3,8%, and also the average of the half of the EU-countries, where that type of school is attended only by one percent of pupils. (2) Grammar schools participate in the secondary education with 20,88%, whereas the share within the Czech Republic is only 19,54%.



Table No. 3-5 - Inhabitants' educational structure in the MSR

Source: Czech Statistical Office

(3) The two third of secondary schools can be determined as state schools (there is a 70% share throughout the Czech Republic), the pupils' share reaches a level of 82,4%. (4) In the area of universities, the interest in technical fields of study has been rising in the recent couple of years, when between the years of 1996 and 2000 the students' share rose in technical fields of study by 2,34%, the highest decrease was marked by humanities, by 1,45 percentage points.

# Health service and social welfare

It can be noted generally, that in the area of health service the developing trends are being pushed forward in the MSR, which are in essence compatible with the nationwide development scale. If we proceed from the statistical data concerning the health care in the MSK, the it can be observed, that the hospital capacity dropped by 1.641 beds in the years of 1994-1999, that is 16,45%, what is a comparable figure with the development in the Czech Republic as a whole, where at the same time the number of beds fell by 16,13%. A similar trend as in case of the hospital beds can be observed with the doctors working in hospitals, of whose number dropped by 13,52% in the years of 1994-1999 (in the Czech Republic by 12,68%), whereas at the same time it came to an increase in doctors securing the ambulatory care by 16,30%, what in absolute figures means an increase by 409,8 doctors<sup>1</sup> (in the Czech Republic was the same increase by 11,48%). The net of medical equipment in the MSR can be named as corresponding to the requirements of the region, what is made evident by e.g. arriving of the rescue health system to the required place in 15 minutes after receiving a call.

As it is obvious from the data depicted in the table no. 3-5, the average room capacity in social work institutions corresponded to the average inhabitants' share in the MSR and in the whole inhabitants' number of the Czech Republic – both figures achieve the same value – 12,5%. Regardless of the fact that the volume of social work correspondents in essence to the position of the region within the Czech Republic, there are some distinct differences within the MSR itself, these are especially manifested by many times higher capacity in the institutional facilities in the Ostrava district as opposed to the Frydek-Mistek and Novy Jicin districts.

	1994	1995	1996	1997	1998	1999
number of doctors per 10 thousand inhabitants						
- Czech Republic	31,8	33,1	32,8	33,2	33,4	33,5
- MSR	28,0	28,7	29,6	29,7	30,0	30,3
- advance of the MSR	-3,8	-4,4	-3,2	-3,5	-3,4	-3,2
number of hospitals, beds per 10 thousand inhabitants						
- Czech Republic	77,7	72,1	69,4	68,4	67,4	65,5
- MSR	77,0	71,6	69,0	67,8	66,2	65,0
- advance of the MSR	-0,7	-0,5	-0,4	-0,6	-1,2	-0,5
number of beds in specialist medical institutions						
- Czech Republic	25 232	23 718	23 586	22 525	21 780	22 151
- MSR	3 227	2 964	2 706	2 731	2 880	2 858
- region's share in the CR (in %)	12,79	12,50	11,47	12,12	13,22	12,90

Table No. 3-6 – Securing the health care in the MSR and the Czech Republic

Source: Czech Statistical Office and an own calculation

# Habitation

In the area of habitation, the MSR can be characterized as a region with a high share of the so called multiple habitation, which is a result of the relatively intense housing development, which took place in the MSR in the after war period – the share of the multiple habitation in the total number of flats accounts for the level of 65,6%, which is a figure exceeding the Republic average by 6,7 percentage points. There are some apparent differences among the particular districts, where the share of the multiple habitation reaches the level of 82,15 in the Ostravsko-karvinsky district, whereas in the other three districts of the MSR makes this share only 46,17%.

As it is clear from the data depicted in the table no. 3-6, it has come since 1991 both in Bohemia, and in the MSR to a relatively rapid fall in the housing development of new flats, it can be observed, that the decrease in the MSR is even more intense. If we compare the intensity of the housing development in the particular regions in the Czech Republic, then it can be noted, that the area of the northern Moravia and Silesia, reaches, after the region of Usti, the second lowest value. If we proceed from the available statistical data, then it can be observed, that in the years of 1991-1999, there were finished on average 1,76 flats per 1.000 inhabitants, whereas the same indicator reaches in the Czech Republic the average value of 2,31.

	1991	1992	1993	1994	1995	1996	1997	1998	1999			
CR	41 719	36 397	31 509	18 162	12 662	14 037	15 904	21 245	22 299			
MSR	4 977	3 392	3 248	1 288	1 537	1 285	1 552	1 647	1 566			
- region's share in the CR (in %)	11,93	9,32	10,31	7,09	12,14	9,15	9,76	7,75	7,02			

Table No. 3-7 – The number of the finished flats in the MSR and in the Czech Republic

Source: Czech Statistical Office and an own calculation

### Environment

In relation to the quality of environment, the MSR belongs within the Czech Republic to the most encumbered regions, whereas from the point of view of the particular components of environment, the following can be determined as the most serious (1) air pollution and surface water pollution from the stationary sources and transport, (2) damage of the landscape by the mining activity and (3) soil and underground water contamination in consequence of the industrial companies. Like in the previous cases, the differences in environment pollution can be also traced within the MSR, where some internal differences within the region can be noticed, which are induced by both a different economic development, and the different nature character. To the most encumbered territories of the MSR, belong especially the areas with a massive concentration of mining and metallurgy industry, that is the Ostravsko-karvinsky agglomeration and the territory in the surrounding of Trinec. On the other hand, it has to made clear, that three large-area reserves can be found in the MSR – the CHKO Jesenik, Beskydy and Poodri – and several separately reserves.

<b>Table No. 3-8</b> –	Emission	from	the	air	pollution	sources	in	the	MSR	and	the	Czech	Republic	(in
thousand/year)														

•	1994	1995	1996	1997	1998	1999
Solid substances						
- Czech Republic	142,3	102,2	92,9	56,6	33,3	16,1
- MSR	39,7	28,3	21,2	16,2	9,0	5,2
- region's share in the CR (in %)	27,90	27,69	22,82	28,62	27,03	32,30
sulphur dioxide						
- Czech Republic	1 030,6	956,3	821,1	598,0	362,6	193,1
MSR	85,4	85,1	79,8	65,8	45,6	34,0
- region's share in the CR (in %)	8,29	8,90	9,72	11,00	12,58	17,61
nitrogen oxide						
- Czech Republic	206,2	190,3	175,7	161,9	143,5	135,0
- MSR	48,2	42,2	38,9	29,4	26,0	26,0
- region's share in the CR (in %)	23,38	22,18	22,14	18,16	18,12	19,26
carbon monoxide						
- Czech Republic	291,1	311,6	264,6	256,5	207,9	159,9
- MSR	231,2	256,0	222,1	216,6	177,2	134,5
- region's share in the CR (in %)	79,42	82,16	83,94	84,44	85,23	84,12
hydrocarbon						
- Czech Republic	24,8	22,6	18,2	19,7	21,2	17,7
- MSR	5,5	4,4	3,9	3,2	4,6	2,1
- region's share in the CR (in %)	22,18	19,47	21,43	16,24	21,70	11,86

Source: Czech Statistical Office and an own calculation

In spite of everything that has been said, one can state, that since the beginning of the 90's it has come to a gradual improvement of the quality of environment, and because of (1) exercising more rigid environmental legislation, (2) the decrease in the industrial production and (3) increasing investments spent on the environment protection. The positive influences have been reflected especially in the area of air pollution in the past years.

If we proceed from the data shown in the table no.3-7, then it can be observed, that the emission of solid substances in the MSR has dropped most markedly, by whole 86,90%, hydrocarbon (-61,82%) and sulphur dioxide (-60,19%). Conversely – compared with other

harmful substances - the least has fallen the emission of carbon monoxide (-41,83%), whereas the average share of the MSR in the emission of those substances reached in the studied period 83,22% within the Czech Republic.