BASELINE ANALYSIS OF ECONOMIC SECTORS

Baseline Analysis of Economic Sectors

CREDO
KRAJINA

2013

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Executive Summary

In the first part of this analysis, we made an "aerial photo" of the overall state of the economy of the whole country and both of the entities. When all the data are taken into account, it is obvious that the global economic crisis led to recession and stagnation of the BiH economy. The overall socio-economic situation has significantly deteriorated under these circumstances and the crisis affected both the RS and the FBiH in a very similar way.

The next step that we made is somewhat deeper analysis of the areas covered by the CREDO Krajina Project. Here we took a bit of a closer look of this area, a kind of a "helicopter" view photo. What is seen from these data is that the economy of this area is mainly focused in several municipalities: Banjaluka, Bihac, Laktasi, Gradiska, Prijedor, Cazin and Doboj.

The area has 8.3 companies per 1,000 citizens. This is at a level of the RS and FBiH average, but it is a lot below the average of Varazdin District (19 companies per 1,000 citizens). This shows how much we lag behind. Along with this, the economy structure is unfavorable. Trade, traffic and construction dominate, whereas the processing industry sectors significantly lag behind.

The biggest number of the employed is, also, in trade, traffic and construction. Unemployment of 2/3 municipalities is higher than the average and in about ½ of municipalities, the unemployment is quite high (more than 50%). When everything is taken into account, the unemployment is the key and biggest weakness of this area.

When it comes to export orientation of the economy in this area, the biggest exporters are metal, wood processing and food industry. The companies realize solid profit, despite the crisis. The most

profit is realized by trade and construction, though metal industry and food processing industry, as well as information technology are quite good by total realized profit.

A relatively small number of sectors with bigger losses is surprising (catering and traffic). All the others, regardless to hard conditions in which they are, operate with positive business results. Except for catering, there is no any other sector with more employees employed in the companies operating with losses, when compared to those operating with positive business results. Some of the sectors (IT, production of chemicals, rubber and plastic) are exceptionally profitable, whereas the majority of them, in terms of ratio between productivity and salaries, have potential for new jobs.

As a continuation of the "helicopter" viewing of the state of economy, we analyzed the support which is offered to companies in the project area. Support to the economy, in the area covered by the CREDO Krajina Project is fragmented, without strategic support in directing of the funds. Monetary support of the Republic of Srpska Government to the SME sector is seen in a set of incentives in the most significant sectors, such as the economy – industry, agriculture, tourism, support to technology development and support to employment. Measures of the USC Government, in the last three years, have been aimed at building of business infrastructure, improvement of access to capital, support to employment of the young, as well as mitigating of the economic crisis effects.

In addition to domestic actors, support to the economy was given through the donors' projects. TAM program, through adjusted training, has brought know-how of experts and experienced manages from developed countries to local companies, in all the area of their businesses. BAS program has provided support to development of domestic companies through providing of financial support for usage of business advisory services and local consultancy services. Support to FIRMA project was focused on development of a value chain in three selected sectors of the BiH economy: metal industry, wood processing industry and tourism. It includes acting through five of the so-called competitiveness areas: product and productivity, market links, access to finances, training and education and business environment.

We have compared the situation in this area with the situation in the region. Unlike BiH, support to the economy in the Republic of Serbia is based on the main strategic focuses and, as such, it is much larger in scope, more effective and more efficient.

After the "helicopter" view of the state of economy, in the fourth part we come even closer to individual sectors and we deepen the analysis for each of these sectors. Here we will state the major conclusions. The sector of agriculture, forestry and fisheries is operating with positive business results, but it is far from being locomotive of development, on its own. When being ranked along with other sectors, agriculture realizes performances below the average.

Food processing industry operates pretty well and it has significant potential for development. Its performances are significantly above the average. Textile industry is on the verge of cost-effectiveness and it is unlikely to get out of these problems in a while. This industry is far below the average. Production of paper and publishing and printing activities used to be one of the locomotives of development of this area, but this is not the case anymore. Its performances are, also, significantly below the average.

Production of chemicals is exceptionally profitable, however this sector is very small and it employs a small number of employees. It comes below the average according to employment, export and income, but also significantly above the average by productivity and return on assets. Production of leather and footwear operates on a solid basis, with a lot of export and employing a large number of employees. By majority of indicators, it comes above the average, except by income and productivity.

Although some companies, inside the wood processing sector, have significant internal problems, the sector, on the whole, operates well and it has shown a significant potential for future development. Wood processing industry performances are significantly below the average. Rubber and plastic sector is exceptionally profitable and, in addition to production of finished goods, it serves as important support to the food processing, metal and other industries. It comes below the average by employment, export and income, though it comes significantly above the average by productivity and return on assets.

Metal industry has shown the best performances by the majority of aspects significant for development. These performances are "champion" ones, far above the average according to all the indicators. Electrical engineering industry, once one of the main sectors for development of this area, now realizes modest results and it does not represent anymore a sector with significant development potential. This industry, observed on the whole, has realized performances poorer than the average.

Catering has marked very poor results. Many jobs are jeopardized in this sector. This business activity is, according to available indicators, in a very bad position. On the other side, the IT sector is extremely profitable, expanding and it has got great possibilities for further development. The IT sector is below the average about employment, export and income, but it is significantly above the average by productivity and return on assets.

After the "aerial" and "helicopter" view photos of the state of economy and thorough analysis of individual sectors, in the fifth part we ranked them and selected the sectors with the biggest growth potential. According to the present quantitative analysis, the following sectors were ranked above the average: metal industry, IT sector, rubber and plastic, food processing industry, wood processing industry, production of chemicals, leather and footwear. Production of electrical machines, agriculture and forestry, paper and publishing and printing, textile and catering come below the average.

In addition to the quantitative analysis, the qualitative analysis was performed by collecting opinions and estimates from relevant experts about the future performances of the sector about the issues of employment growth, income (sales) growth, investment growth, technological advancement, export growth and other areas. According to quantitative and qualitative analysis, metal industry, food industry and wood processing industry stand out. These are, at the same time, the largest processing sectors.

Metal industry is a leading economic branch in the project area. This sector has huge potentials and it also owns strong human and resource basis, as well as a long tradition which provides sustainable development of different activities. Food industry is, in the area covered by the project, also included in developed branches, where financial business results of the majority of companies have been positive for years. Wood processing industry of this area has a long tradition of production of qualitative wood raw materials and furniture. Relatively cheap and skillful labor force ensures competitive advantage, particularly for furniture industry.

In addition to these three sectors, production of leather and footwear is a sector whose value chains will be worked on within the CREDO Krajina Project. This sector, although it takes a solid position according to competitiveness position, though somewhat below the other sectors, according to the qualitative estimate it owns huge potentials for creation of jobs. Namely, in the last several years, a lot of foreign capital was invested in this sector, as this type of production moves from the area of the Far East, to the areas closer to the EU, where the area covered by the CREDO Krajina Project has a competitive advantage.

These four sectors are selected as the main sectors for sectoral support. However, there are two more sectors that have exceptional performances. The IT sector and rubber and plastic sector have the highest degree of profitability and productivity, though, according to the other criteria (employment, income, export) they lag behind. As these are relatively small, these sectors are ideal as support to other sectors in improvement of production and productivity and, as such, they were selected to be included in the CREDO Krajina Project.

Introduction

The following analysis "Baseline Analysis of Business Sectors" is one of the results of the first phase of CREDO Krajina Project, which is implemented by the Agency Eda, Banjaluka. The CREDO Krajina Project, through a two-phase process of support to the growth and development of SMEs, has tried to realize opening of new jobs with preservation of the existing ones, as well as to contribute to decrease of poverty and improvement of the economic position.

This analysis is one of the steps in this process. Namely, a part of what is to be created later in the project will be based on this document. It should be a diagnosis of the current situation, which will serve as an initial reference for further activities and as a basis for a valid "therapy".

As Peter Drucker, a great master of management, once said, *there's nothing more useless, nor more dangerous, than the right answer to the wrong question*. This analysis has been aimed at coming to the right questions and issues. Having this into account, when creating it, we tried to have a comprehensive and systematic approach, without surplus theoretical debates, with a special interest paid to the practical situation 'in the field'.

It must be emphasized that this is an attempt to diagnose the situation of social/economic development in a special, chaotic, transitional time for BiH. Therefore, we believe that collected, compiled and processed data from 34 municipalities and about 8,400 companies, from two statistically completely separate entity systems, is a kind of a difference in all such activities.

Methodology of analysis is relatively simple. In one part, it is based on some standard forms, while in the other part it is based on specific needs of the CREDO Krajina Project and specific focus on the

sectors. In a macroeconomic part, which is based on standard forms, the methodology is based on the analysis of standard indicators in this area. In a part which is specific, in addition to the standard ones (total income, profit, etc.) some which are rarely used in BiH are also analyzed (profit per employee, ration between productivity states as profit per employee and gross salaries of the employee or, simply speaking, ratio of profit that an employee creates for a company and his/her salaries), and some are completely innovative (composite competition index, calculated as an average of five indexes: employment index, income index, productivity index, index of property return and export index).

The analysis consists of the 5 main aspects or parts of analysis, which are physically put one next to the other, whereas, conceptually, there are interdependent and overlapped, and include:

- Macroeconomic analysis of BiH, RS and FBiH,
- Analysis of the economy in the area covered by the project,
- Measures of support to the economy in the area covered by the project,
- Sectoral economic/financial analysis,
- Ranking of performances and competition and selection of business sectors.

In the first part, the basic macroeconomic criteria in BiH, RS and FBiH are established – economic growth, employment, inflation, etc. The second part speaks about the economy of the areas, its structure and performances. The third part establishes measures of support to the economy that are available, whereas the fourth analyzes the performances and compares competitiveness of different business sectors. The fifth part establishes, compares and ranks the performances and competitiveness of business sectors and this is where recommendation on selection of the most competitive sectors are given.

In Banjaluka, 26th November 2013.

1. Macroeconomic situation in BiH, RS and FBiH

Macroeconomic situation in BiH

In the period prior to the global financial and economic crises, the real growth rates in BiH amounted to over 5%. However, the global economic recession has led to decrease of economic activities in BiH. After the drop of the real GDP in 2009 by 2.9% and two years of crises, with very modest growth rates, the economy in BiH did not mark economic growth in 2012 either. Contrary, 2012 marked a drop of the GDP by 1.1%, which presents going backwards compared to the modest 0.7% of 2010 and 1% of 2011. This is far from pre-crisis growth rates of above 5%, necessary to achieve the living standard not only of developed but also of the majority of transitional counties as well as those in the region.

In the first part of this analysis, we made an "aerial photo" of the overall state of the economy of the whole country and both of the entities.

Table 1: Review of key macroeconomic indicators of BiH, 2007-2012

	2007	2008	2009	2010	2011	2012
Nominal GDP (in millions of км)	21,911.3	24,897.7	24,202.0	24,772.8	25,680.1	25,654.3
GDP, nominal growth rate in %, (g/g)	12.7	13.5	-2.8	2.4	3.7	-0.1
GDP, real growth rate in %, (g/g)	6.0	5.6	-2.8	0.7	1.0	-1.1
Population (estimate, thousands)	3,842.0	3,842.0	3,842.6	3,843.1	3,840.0	3,836.0
GDP per capita (in км)	5,668.0	6,443.0	6,246.0	6,397.0	6,688.0	6,688.0
Number of unemployed (registered)	526,636	492,819	497,581	516,949	529,690	543,390
Number of employed (registered)	668,257	689,924	680,161	668,567	679,510	688,340
Unemployment rate (official statistics), in %	44.0	42.1	42.2	43.6	43.8	44.1

When all the data are taken into account, it is obvious that the global economic crisis led to recession and stagnation of the BiH economy.

The overall socio-economic situation has significantly deteriorated under these circumstances.

	2007	2008	2009	2010	2011	2012
Unemployment rate (ARS - ILO), in %	29.0	23.4	24.1	27.2	27.6	28.0
Average salaries (in КМ)	630.0	752.0	790.0	798.0	816.0	826.0
Average pensions (in КМ)	266.1	328.0	341.0	333.0	338.0	336.0
Consumer price index (average annual changes in %)	1.5	7.4	-0.4	2.1	3.7	2.1

Source: Agency for Statistics of BiH

Total socio/economic situation has, under these circumstances, deteriorated, especially when 2008 is compared, as the last 'pre-crisis year' with 2012. During this period of crisis, a significant increase of the number of unemployed in BiH was marked. The rate of administrative unemployment has increased from 42.1% (2008) to 44.1% (2012), while according to the *Labor Force Survey* (LFS), the real unemployment rate in BiH has increased from 23.4% to 28% in the same period.

Macroeconomic situation in the RS

Everything what was happening at a macroeconomic level at the BiH is a reflection of what was happening in the entities. In the Republic of Srpska, in the period prior to the global financial and economic crises, the rates of real growth amounted to over 6%. After the drop of 3% in 2009, very modest results were achieved with growth rates of 0.8% in the RS. It may freely be concluded that the RS economy in 2010 and 2011 stagnated, while in 2012 it even deteriorated (-1% of GDP).

Table 2: Review of the key macroeconomic indicators of the RS, 2007-2012

	2007	2008	2009	2010	2011	2012
Nominal GDP (in millions of КМ)	7,351.0	8,489.3	8,223.0	8,308.1	8,668.7	8,594.2
GDP, nominal growth rate in % (g/g)	12.3	15.5	-3.1	1.0	4.3	-1.0
GDP, real growth rate in % (g/g)	6.7	6.2	-3.0	0.8	0.8	-1.0
Population (estimate, thousands)	1,440.0	1,437.8	1,435.2	1,433.0	1,429.7	1,429.3
GDP per capita (in КМ)	5,106.0	5,906.0	5,730.0	5,797.0	6,064.0	6,013.0

	2007	2008	2009	2010	2011	2012
Number of unemployed (registered)	139,825	135,102	139,536	145,343	150,344	153,225
Number of employed (registered)	258,236	259,205	258,634	244,453	238,956	238,178
Unemployment rate (official statistics) in %	34.0	34.2	35.5	37.3	38.7	39.3
Unemployment rate (ARS - ILO) in %	25.2	20.5	21.4	23.6	24.5	25.6
Average salaries (in КМ)	585.0	755.0	788.0	784.0	809.0	818.0
Average pensions (in КМ)	237.3	309.0	335.0	321.0	321.0	312.0
Consumer prices index (average annual change in %)	1.1	7.2	-0.4	2.5	3.9	2.1

Source: Institute of Statistics of the RS

Total socio-economic situation in the RS has deteriorated, especially when it is compared to 2008, as the last "pre-crisis" year with 2012. During this period of crisis, a significant decrease of a number of the employed in the RS was marked. According to data of the RS Institute of Statistics, an average number of officially employed in 2008 was 259 thousands and in 2012 this number was by 21,000 lower – 238 thousands. The rate of administrative unemployment has increased from 34.2% (2008) to 39.3% (2012), while according to the *Labor Force Survey* (LFS), the real unemployment rate in BiH was increased from 20.5% to 25.6% in the same period.

The crisis affected both the RS and the FBiH in a very similar way.

Macroeconomic situation in the FBiH

The world economic crisis has led to a significant decrease of economic activities in the FBiH. In 2009, a drop of 2.8% was marked, whereas in the next two years, we had a modest growth rate, of 0.7% and 1.4% in 2010 and 2011 respectively. In 2012, a drop of GDP by 1.1% was marked again.

Table 3: Review of key macroeconomic indicators of the FBiH, 2007-2012

	2007	2008	2009	2010	2011	2012
Nominal GDP (in millions of КМ)	13,743.1	15,647.0	15,230.6	15,615.1	16,208.1	16,469.1
GDP, nominal growth rate in % (g/g)	13.1	13.9	-2.9	2.5	3.2	0.4

	2007	2008	2009	2010	2011	2012
GDP, real growth rate in % (g/g)	7.0	5.4	-2.8	0.7	1.4	-1.1
Population (estimate, thousands)	2,328.4	2,327.2	2,327.3	2,337.7	2,338.3	2,338.3
GDP per capita (in КМ)	5,902.5	6,723.6	6,544.3	6,679.8	6,931.7	7,043.0
Number of unemployed (registered)	370,459	345,381	347,146	360,513	367,515	377,957
Number of employed (registered)	413,676	430,745	426,557	424,844	440,747	437,331
Unemployment rate (official statistics) in %	47.2	44.5	44.9	45.1	45.5	46.4
Unemployment rate (ARS - ILO) in %	31.1	25.0	25.7	29.1	29.2	29.4
Average salaries (in КМ)	662.0	751.0	792.0	804.0	819.0	829.9
Average pensions (in КМ)	284.2	340.0	346.0	341.0	349.0	351.0
Consumer prices index (average annual change in %)	1.9	7.7	-1.5	1.8	3.6	2.1

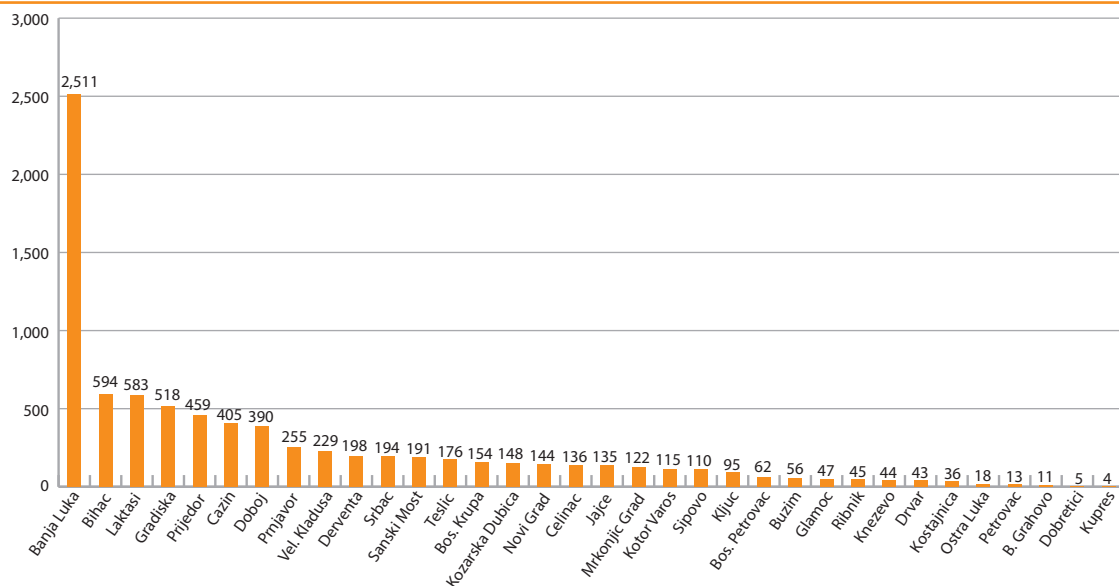*Source: Institute of Statistics of the FBiH*

As in the RS, the socio-economic situation in the FBiH under these circumstances has deteriorated. When comparing 2008, as the last "pre-crisis" year, with 2012, some of the data witness about this deterioration, whereas some speak about recovery at the times after the recession. For example, the rate of administrative unemployment has increased from 44.5% (2008) to 46.4% (2012), whereas, according to the *Labor Force Survey* (LFS), the real unemployment rate in BiH was increased from 25% to 29.4% in the same period. However, during this crisis period, after decrease in the number of employees in 2009 and 2010, the year of 2011 marked a significant growth of the number of employees of about 15,000, whereas, 2012, the total number was somewhat decreased (by about 3,000 employees). This fact shows that the economy in the FBiH shows signs of recovery from the crisis (unlike the Republic of Srpska).

2. Analysis of the economy in the area covered by the CREDO Krajina Project

Number of companies and total income

About 8,300 companies operated in the area of 34 observed municipalities in 2011. The very City of Banjaluka has 2,511 companies, which is about 30% of the total number. The main economic activities (56%) are located in 5 municipalities: Banjaluka (2,511 companies), Bihac (594), Laktasi (583), Gradiska (518) and Prijedor (459). The smallest number of companies is in Dobretici (5) and Kupres (4).

Chart 1. Number of companies in 2011

The next step that we made is somewhat deeper analysis of the areas covered by the CREDO Krajina Project. Here we took a bit of a closer look of this area, a kind of a "helicopter" view photo.
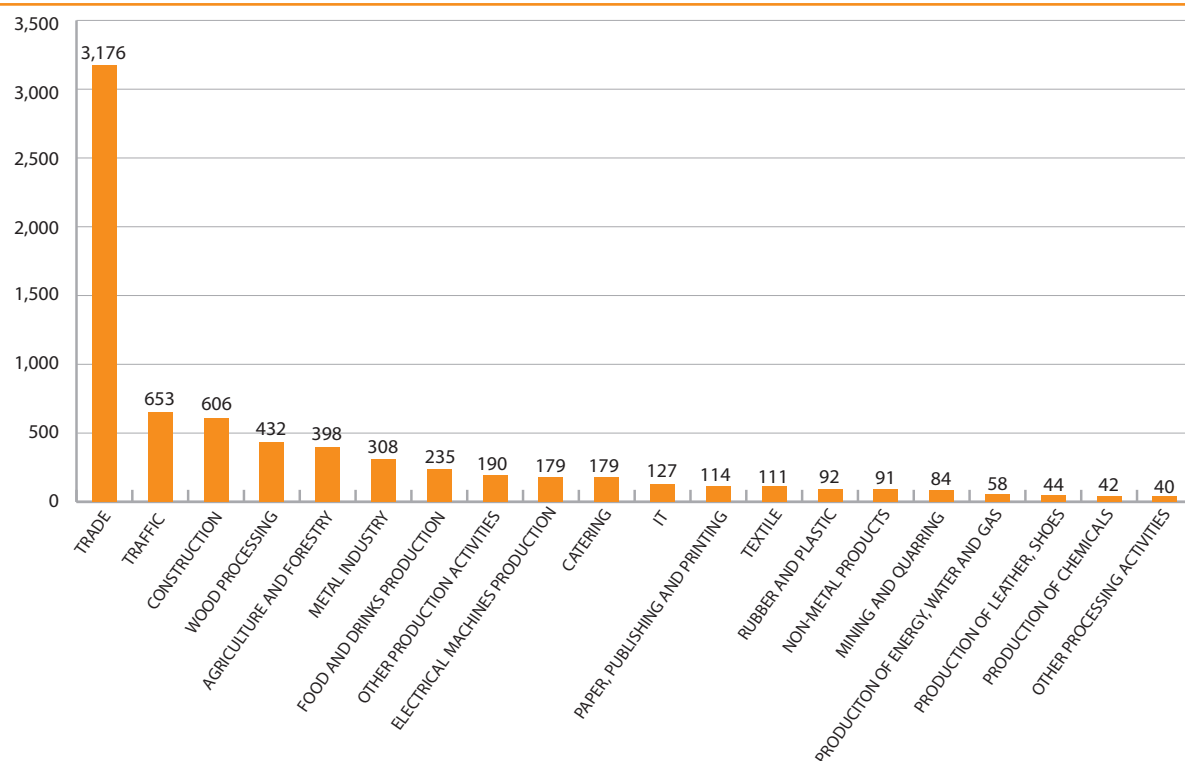
What is seen from these data is that the economy of this area is mainly focused in several municipalities: Banjaluka, Bihac, Laktasi, Gradiska, Prijedor, Cazin and Doboj.

Source: AFIP FBiH and APIF RS, Institute of Statistics of the FBiH, Institute of Statistics of the RS and municipalities

When the number of companies is looked at per 1,000 citizens, a different picture is created. The area has about one million of citizens and about 8,300 active companies, which roughly means 8.3 companies per 1,000 citizens. This corresponds to the average of BiH for about 8, but if we compare this with somewhat more developed areas, which are relatively close, then a different picture is obtained. If this average is compared to the average of Varazdin District, which amounts to 19[1] companies per 1,000 citizens, it shows how far behind we lag. This means that this area would have to have at least twice as many of companies to come closer to a degree of development of this district. It is not necessary to emphasize what would these 80 thousand jobs mean to the living standard of these people.

The area has 8.3 companies per 1000 citizens. This is at the level of the RS and FBiH average, but it is much lower than the average of the Varazdin District (19 companies by 1000 citizens). This is where it is actually seen how much we lag behind.

Along with this, the economy structure is unfavorable. Trade, traffic and construction dominate, whereas the processing industry sectors significantly lag behind.

Chart 2. Number of companies by sectors in 34 observed municipalities in 2011

Source: AFIP FBiH and APIF RS, Institute of Statistics of the FBiH, Institute of Statistics of the RS and municipalities

[1]   Statistical Bulletin of the Varazdin District.

When it comes to the sectoral structure in 34 observed municipalities, 38.4% of all the companies make trading companies. These are followed by the following sectors: traffic, construction, wood processing and agriculture and forestry. Namely, only one sector of processing industry comes under the first five sectors, according to the number of companies.

In the area of processing industries, the biggest number of companies is in the wood processing sector (432), metal industry and mechanical engineering industry (metal and metal products and machines and appliances – 308), production of food and beverages (235). Catering and electrical engineering industry are not to be neglected (at 179).

Total realized income in the observed 34 municipalities in 2011 amounted to KM 12.6 billions. Chart 3 contains data about the sectors with the biggest total income.

Chart 3. Total income in 2011 by sectors, all 34 municipalities (in KM millions)
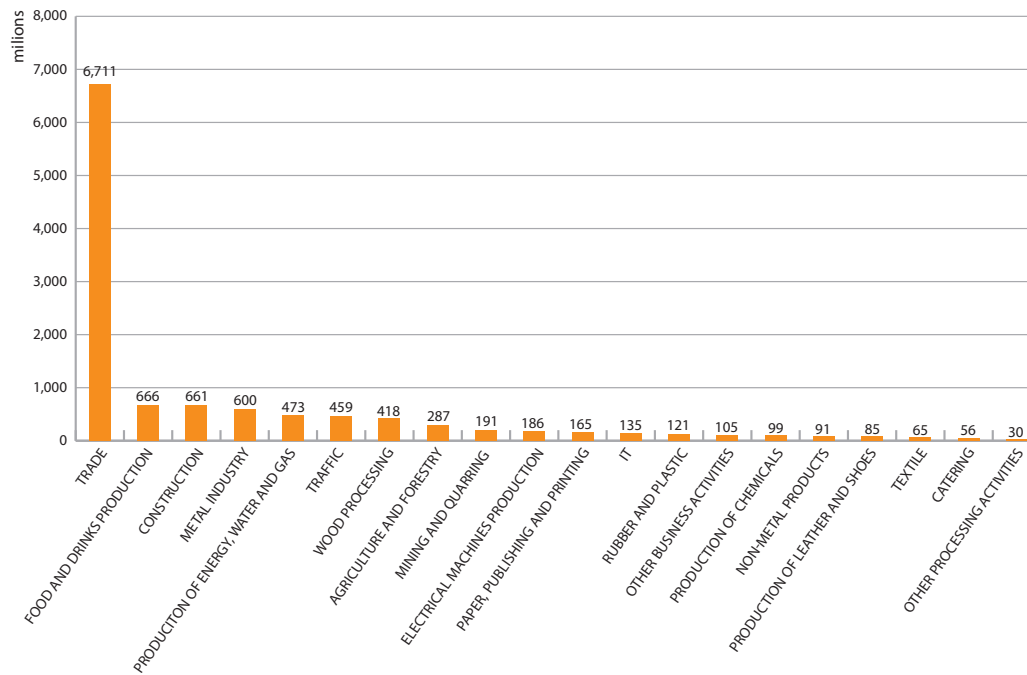
Based on realized income, trade is exceptionally dominant. However, processing industry sectors here take a much more favorable position here.

The biggest share in the total income of economy has trade with 53.2%, whereas the second and third are traffic and food industry. Unlike the position according to the number of companies, amongst the first 5, according to the total income, are the sectors of processing industry, i.e. production of food and beverages with KM 666 millions, as well as metal and mechanical engineering industries with KM 600 million, as well as two biggest processing sectors by the total income. Wood processing comes immediately after them with KM 418 millions.

Employment and unemployment

It would be good to compare here the size of the sector by the number of employees in 2011. After trade, traffic and construction, wood processing comes fourth, with 5,879 employees, followed immediately after by the metal and mechanical engineering sector with 5,104 and production of food and beverages with 4,701 employees.

According to the number of employees, the structure is very similar to the one by the number of companies. The biggest number of the employed is in trade, traffic and construction.

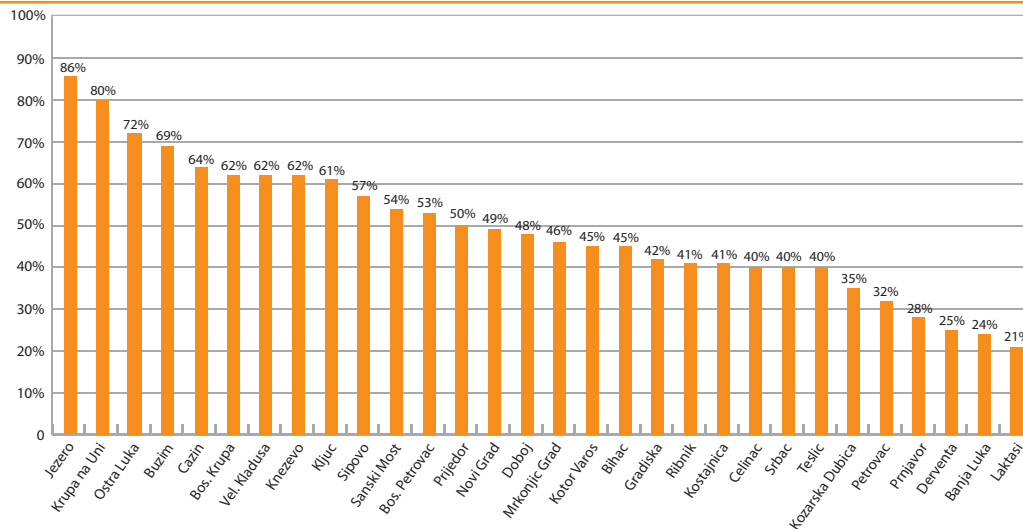*Chart 4. Number of employees by sectors, 2011*
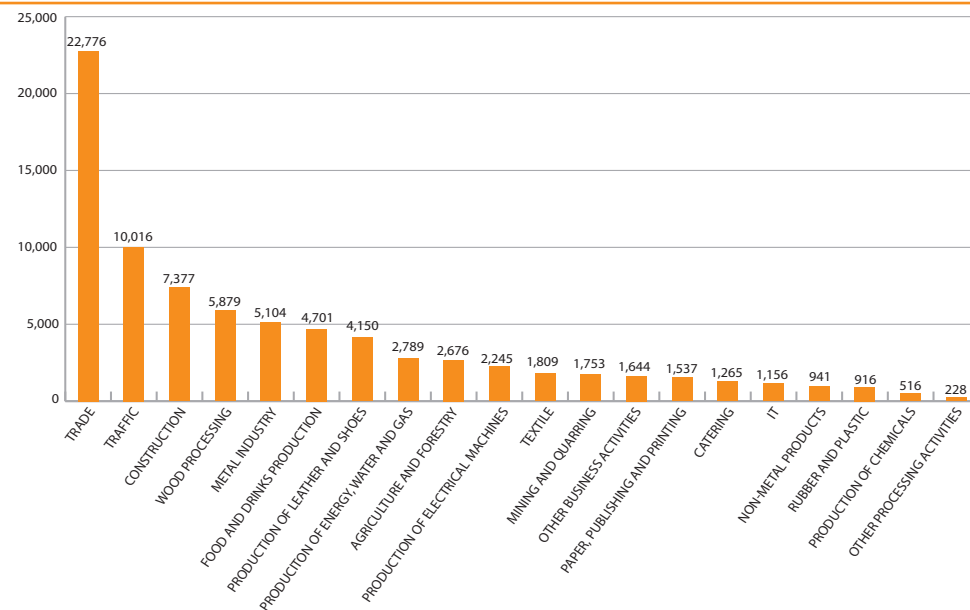
Source: AFIP FBiH and APIF RS, Institute of Statistics of the FBiH, Institute of Statistics of the RS and municipalities

All the other sectors are at the same or somewhat different positions by the number of employees, except for the textile and leather and footwear industry, as we can see in Chart 4. The reason for this is that these two sectors are intensive in terms of labor and that those companies employ somewhat bigger number of employees.

As data about the real unemployment, obtained through the labor force survey, cannot be obtained at a level lower than the entity, this analysis will primarily observe administrative data about unemployment at the municipality level. We will try to make a rough estimate of the real unemployment rate, on the basis of ratio between a formal and survey unemployment rate of BiH.

In the area covered by the CREDO Krajina Project in 2011, 126,000 people were formally unemployed, which amounts to 41.2% of labor force, which is an extremely high rate. As the formal rate at the BiH level was 43.8%, whereas the real unemployment rate in BiH amounted to 28%, the real unemployment in the area of all the 34 municipalities may be roughly estimated[2] to 26.3% of labor force in 2011, which is still very high.

Chart 5. Unemployment rate by municipalities, 2011 (in %)

Source: AFIP FBiH and APIF RS, Institute of Statistics of the FBiH, Institute of Statistics of the RS

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[2] Survey rate at the BiH level amounts to about 2/3 or more preceisely 64% of the formal unemployment rate, thus this ratio was applied to the regional rate.

Unemployment of 2/3 municipalities is higher than the average and in about ½ of municipalities, the unemployment is quite high (more than 50%).

The unemployment is the key and biggest weakness of this area

Such a high unemployment rate, which lasts for a longer period of time, implies that this is a structural unemployment, which results from transition and transformation in which the economy is, migration movements and other changes of the labor market. As a consequence of the economic transition, a great number of employees lost their employment, particularly in large (former) social and public companies, though unemployment also hits numerous categories of the young, who look for employment for the first time and for whom it is extremely difficult and slow to find jobs. Such a situation could have been expected, following experiences of other countries in transition, however, the question is if this had to be to such an extent.

Unemployment rate data by municipalities in 2011 is contained in Chart 5. The municipality of Jezero has by far the biggest unemployment rate of about 86%, followed by Krupa na Uni with 80%, Ostra Luka 72%, Buzim 70%, etc. The 2/3 of municipalities has a surprisingly high unemployment rate. The fact that 2/3 of municipalities are in a worse position compared to the average of 41.2% shows that the unemployment is the key and major weakness of this area.
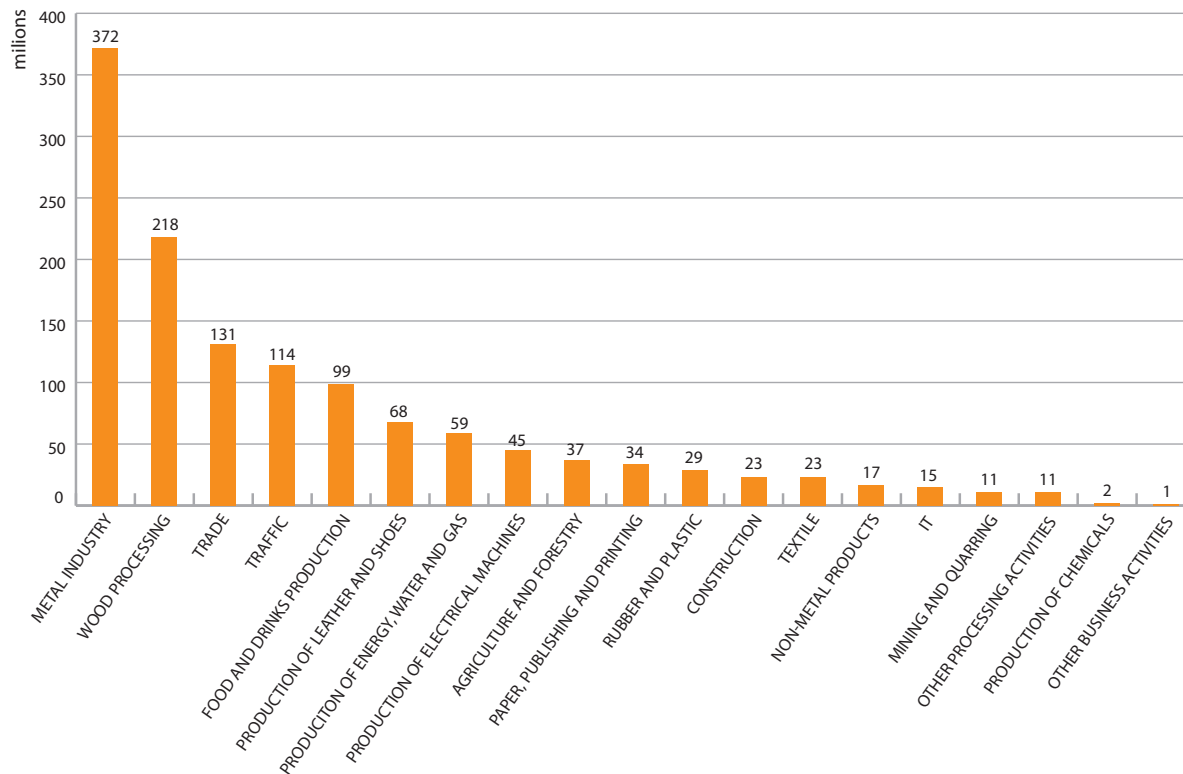
Export

Realized export in the observed 34 municipalities, in 2011, amounts to км 1.34 billion. Data about sectors with the biggest total income are contained in Chart 6.

Metal industry and wood processing industry have the biggest share in the total commercial income, followed by traffic and trade. Traffic sector provides services to foreign clients, whereas for trade, these are trading companies that export domestic products, mainly from the metal industry, wood processing and food sectors. Significant exporters are food industry and production of leather and footwear.

Profit

Data about the total profit by sectors provide an indication in which of the sectors has the adjustment of businesses to conditions of crisis occurred in a positive direction. It may be assumed that the sectors, which realize profit, have already undertaken significant steps to prevent the crisis. This may

Chart 6. Export in 2011 by sectors, in the areas of all the 34 municipalities (in кm millions)

When it comes to export orientation of the economy in this area, the biggest exporters are metal, wood processing and food industry.
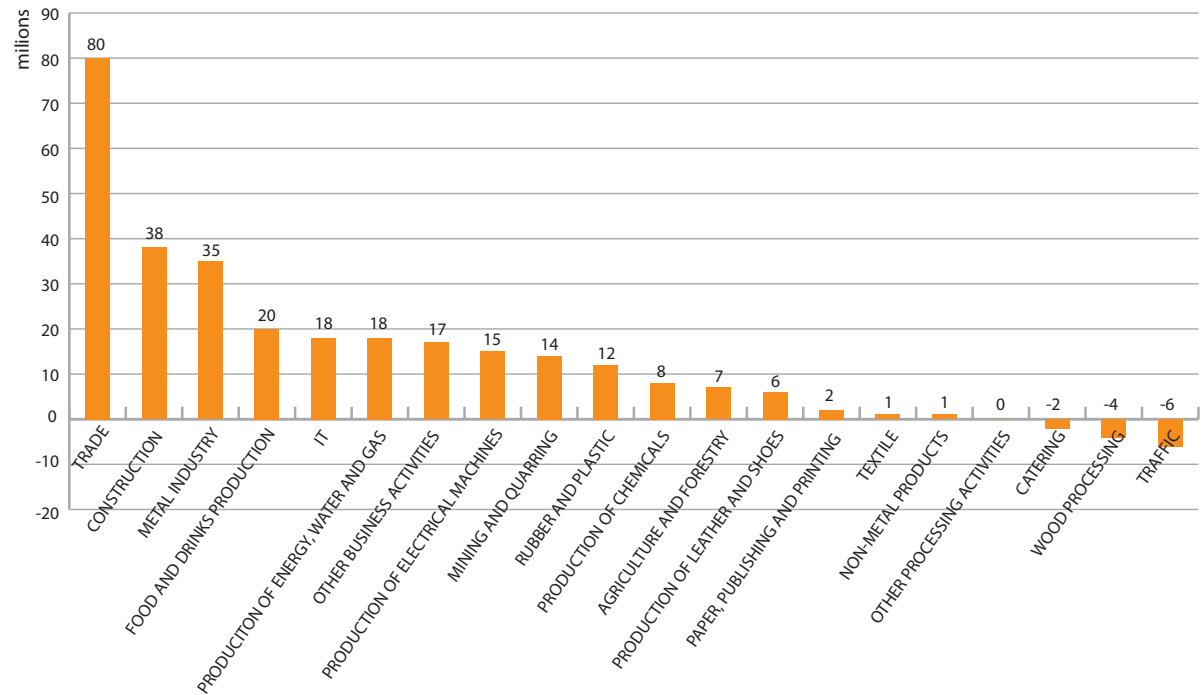
Source: AFIP FBiH and APIF RS, Institute of Statistics of the FBiH, Institute of Statistics of the RS and municipalities

mean that they have come back to the old markets or found new ones, that they have found market niches and products where it is possible to make profit, that they are starting to use modern technologies, change the capital structure through various forms of financing, change internal organizational structure, etc. Such restructuring is usually implemented in line with strategic goals for focusing on the key business. Thus, for example, many companies sell whatever is not their "core" business.

On the basis of data on the total profit, we can see only whether the sector is being successfully restructured, but not which level of restructuring has occurred. Namely, the quantity of restructuring

is evident, whereas the quality is not. For the quality analysis of restructuring, we will use some other indicators that will be shown somewhat later. Chart 7 shows data on the total profit by sectors.

Chart 7. Profit by sectors in 2011 (in KM millions)

Companies in this area realize considerable profit, despite the crises.

Source: AFIP FBiH and APIF RS, Institute of Statistics of the FBiH, Institute of Statistics of the RS and municipalities

Again, trade is the one that steps most ahead of all the other sectors, followed by construction. Metal industry and food industry are processing sectors, which generate most of the total profit. It is interesting here that the information technology sector, although being 12th by total income and 16th by the number of employees, comes fifth by the total realized profit. The situation is similar with the rubber and plastic sector, which takes a much better position by the realized profit, than by the total income and number of employees. When it comes to production sectors, a significant profit is generated by the electrical engineering industry.

When it comes to the sectors that are stagnating or have losses, the sectors of traffic, wood processing and catering are in the worst situation.

The scope of local economy restructuring is even better seen when the profit rates of the whole local economy are compared by the analyzed municipalities, as shown in Chart 8.

A relatively small number of sectors with bigger losses is surprising (catering and traffic). All the others, regardless to hard conditions in which they are, operate with positive business results.
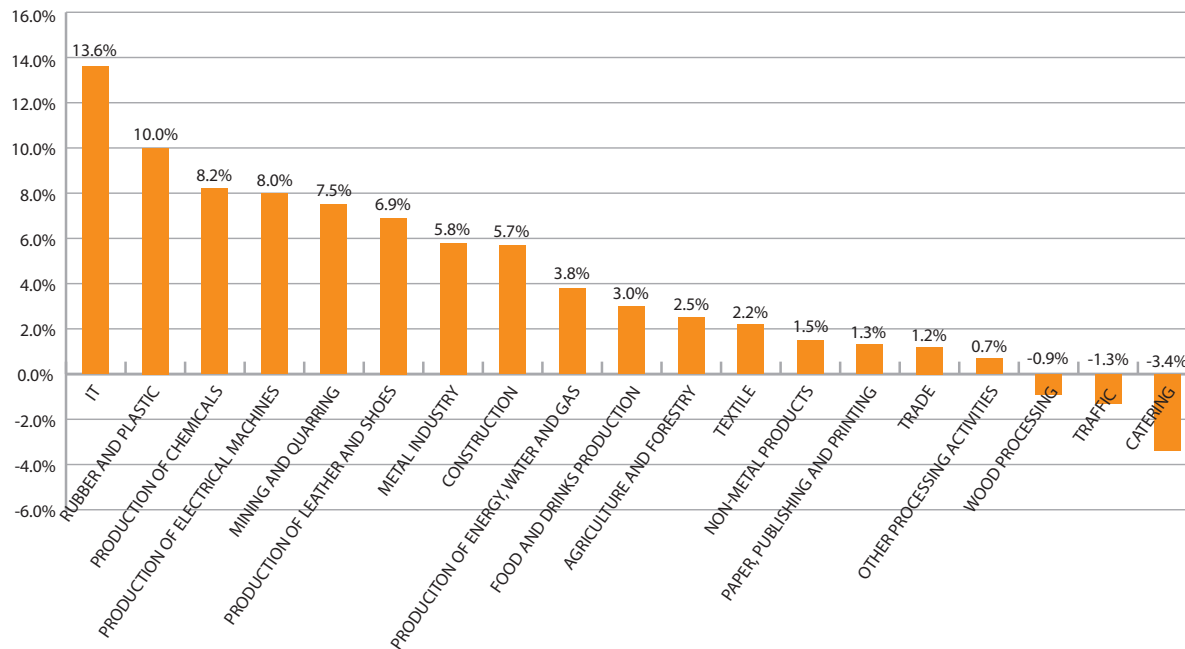
Chart 8. Profit rate by sectors in 2011 (in %)

Source: AFIP FBiH and APIF RS, Institute of Statistics of the FBiH, Institute of Statistics of the RS and municipalities

Profit rate is the first indicator which shows us the quality of restructuring and successfulness of operation of individual sectors. The information technology sectors comes in the first place (13.6%) This sector, in the area of 34 observed municipalities, consists of 127 companies and 1,157 employees. Production of rubber and plastic comes in the second place, whereas the chemical industry comes third. Out of processing industries, production of leather and footwear and metal industry are in

a good position, while the fool processing industry is somewhat below, and all these (according to the number of employees) are large sectors. Traditional food processing industry is otherwise low-accumulation industry, thus the profit rate of 3% is rather solid for this sector.

The second group includes the processing sectors of textile, production of paper and publishing and printing industry, as well as other processing businesses. Here, according to the sector size and modest, yet positive results, production of textile strikes out.

 The third group which strikes out here are sectors with significant problems. Above all, this includes catering, that operates with a significant loss of 3.4% and is in huge problems. This is somewhat unusual, having in mind the potentials of this area in tourism. Also, here is traffic, also in similar problems. When it comes to wood processing, the things are somewhat different. When out of 432 companies, 11 are taken out, performances of this sector become quite good. Instead of 0.9% losses, the profit rate amounts to 3.9% and the case is the same with all the other performance indicators. It is obvious that a part of companies, especially those that were privatized or were established in privatization process, are in losses, not because the wood processing industry is not competitive in this region, but, above all, for internal reasons related to the individual companies.

Chart 9 shows that the trade sector has got 7,300 employees, working in companies operating with losses and 15,327 in companies making profit. The metal industry and mechanical engineering industry employ around 2,493 employees in companies operating with losses and around 2,696 in companies operating with profit. At the same time, the wood processing sector, which is in a much worse situation in terms of its financial data, is here in a bit better state – 2,272 employees in companies operating with losses and 3,604 in companies operating with positive business results. This shows that the wood processing industry is a competitive sector.

The Chart visibly shows that the majority of sectors, construction, leather and footwear, food and beverages, rubber and plastic and information technology, etc. have a significantly higher number of jobs in companies operating with profit than in companies operating with losses. On the other hand, catering is, as well as shown in other data, in quite some problems, as 631 employee in companies operating with losses and 634 operating in companies making profit. Still, from the point of view of the number of employees, this sector is not of significance for this area.

Chart 9. Number of employees in the companies making profit and number of companies realizing losses in 2011, by sectors
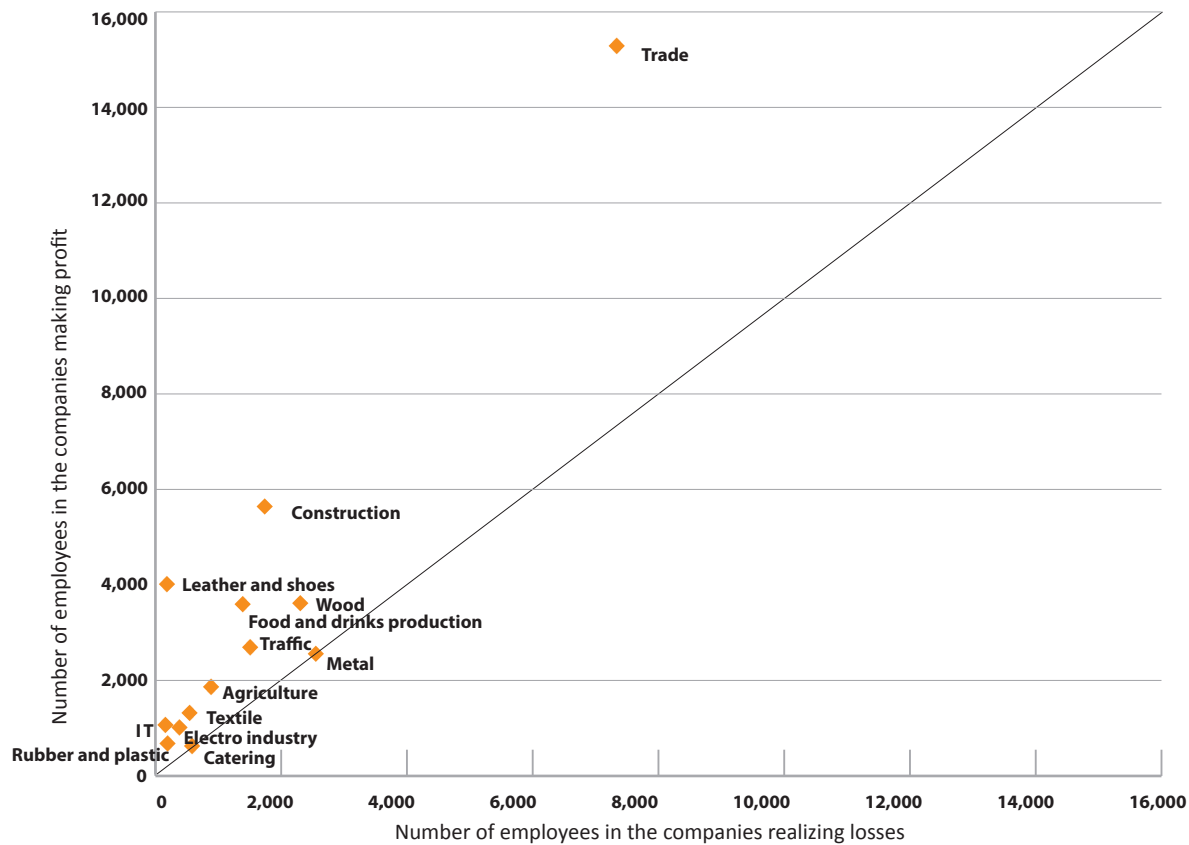
Except for catering, there is no any other sector with more employees employed in the companies operating with losses, when compared to those operating with positive business results.

Source: AFIP FBiH and APIF RS, Institute of Statistics of the FBiH, Institute of Statistics of the RS and municipalities
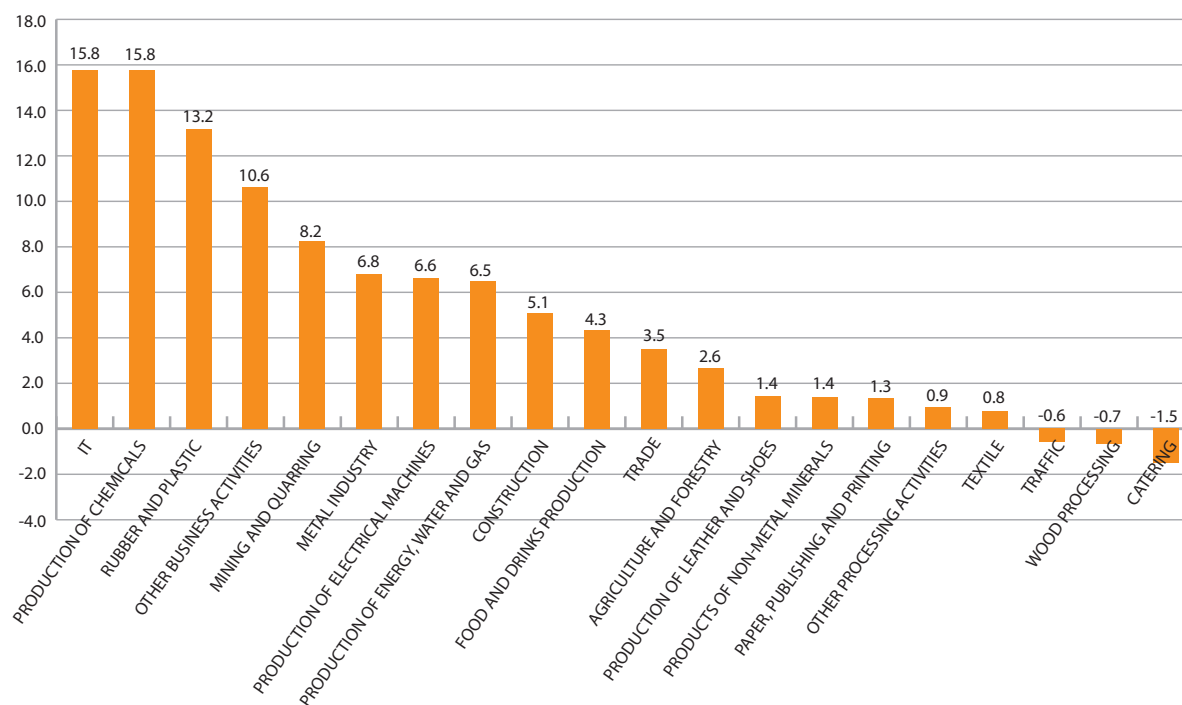
Productivity

The most significant indicator of how a sector is efficient in business operations is productivity. It is mainly measured as a quantity of produced goods per one hour of work, but it will be calculated here as an added value of produced good per employee. Namely, our indicator speaks about how

much of added value an employee in a given sector produces. Profit per employee will be used as a value added indicator, as the most significant competition factor that gives us, first of all, information about effectiveness as well as efficiency of business operations.

Data about productivity of work by sectors in 2011 in KM are contained in Chart 10.

Chart 10. Sector productivity – profit by employee (in KM thousands) 2011

Some of the sectors (IT, production of chemicals, rubber and plastic) are exceptionally profitable, whereas the majority of them, in terms of ratio between productivity and salaries, have potential for new jobs.

Sector	Value
IT	15.8
PRODUCTION OF CHEMICALS	15.8
RUBBER AND PLASTIC	13.2
OTHER BUSINESS ACTIVITIES	10.6
MINING AND QUARRING	8.2
METAL INDUSTRY	6.8
PRODUCTION OF ELECTRICAL MACHINES	6.6
PRODUCTION OF ENERGY, WATER AND GAS	6.5
CONSTRUCTION	5.1
FOOD AND DRINKS PRODUCTION	4.3
TRADE	3.5
AGRICULTURE AND FORESTRY	2.6
PRODUCTION OF LEATHER AND SHOES	1.4
PRODUCTS OF NON-METAL MINERALS	1.4
PAPER, PUBLISHING AND PRINTING	1.3
OTHER PROCESSING ACTIVITIES	0.9
TEXTILE	0.8
TRAFFIC	-0.6
WOOD PROCESSING	-0.7
CATERING	-1.5

Source: AFIP FBiH and APIF RS, Institute of Statistics of the FBiH, Institute of Statistics of the RS and municipalities

As we can see in Chart 10, the sector with the highest level of productivity, i.e. the level of profit by employee, is again the information technology sector. Catering is the sector convincingly having the lowest competitiveness. Wood processing sector has a slightly less bad result. However, the wood processing sector is in a similar situation as with the profit rate. When out of 432 companies only

11 of them are taken out, instead of KM 700 losses by employee, profit by employee of KM 2,880 is marked. This clearly shows that in the wood processing sector only a small number of companies is facing significant losses.

3. Support to the economy in the area covered by the CREDO Krajina Project

Support measures to SMEs in the Republic of Srpska

Financial support of the Republic of Srpska Government to the SMEs sector is reflected through a set of incentives in the most significant sectors, such are the commerce – industry, agriculture, tourism, support to development of technologies and support to employment.

In addition to the budget support, support measures also depend on local communities. For example, during 2011, financial support to the SMEs from the local budgets amounted to км 700,000 for Banjaluka and км 295,000 for Prijedor. On the basis of this, we may conclude that the support, amongst other, was conditioned by the quality of financial situation in the local community. Larger incentive funds may be associated with the existence of agencies for development of SMEs. Namely, the development of SMEs is more advanced where there are local agencies for SMEs, when they operate well with departments for economy and respond to the donators' calls in the area of international cooperation.

As we can see in Table 4, there is a significant number of measures used by the RS Government to support the economy. Subsidies for incentives and development of the economy that have been awarded for a number of years now come first, while, in the previous years, they have been awarded to incentivize export. The awarded support funds to support business operations during the crisis period provide, to a significant extent, to the users to continue investing the awarded funds in improvement of their financial indicators, thus maintaining or increasing the level of employment. This is visible from 2011 incentives effects, because, when we compare this year with 2010, we can see a growth of the total income of users by 15%, growth of income from sale of performance on a foreign market by 19% and an increase of employees by 8%. In this, it should be kept in mind that км 49,000,000 were

As a continuation of the helicopter viewing of the state of economy, we analyzed the support which is offered to companies in the project area.

Support to the economy, in the area covered by the CREDO Krajina Project is fragmented, without strategic support in directing of the funds.

placed through these incentives in the previous three years. Also, the incentives affect development of products and innovativeness as well as creation of a bigger added value.

In addition to the aforementioned, the incentive funds are awarded on a project principle. A company applies with projects, invests its own funds, and further invests awarded subsidies in the production cycle. Having in mind that over 40% of business companies in the Republic of Srpska operate in the trading sector, these incentives are particularly important as support to strengthening production sector and developing the companies in this sector, which faces much higher business operation cots and requirements of the market than the trading sector.

Monetary support of the Republic of Srpska Government to the SME sector is seen in a set of incentives in the most significant sectors, such as the economy–industry, agriculture, tourism, support to technology development and support to employment.

When compared to the other incentives, the incentives for agriculture have the biggest share in the budget of the Republic of Srpska. In relation to this, these incentives have different purposes: support to production, purchasing of equipment and machines, promotion, education, employment and self-employment, support to associations, building of village infrastructure, etc. Having in mind that these incentive are intended to registered rural farms, which are mainly registered in the name of physical persons, it is especially important that support for establishing of SMEs is planned in this area. In this way, the number of SMEs in the area of agriculture will increase. In 2012, over KM 300,000 was budgeted for micro-companies through these incentives. The Republic of Srpska budget for 2013 foresees KM 60,000,000 to support agricultural production.

When it comes to incentives for employment in business, the employers are very interested in usage of these incentives, particularly those employers who are increasing their production capacities in the existing facilities or are opening new business units in other locations, as well as those who plan to do other forms of business activities. Entrepreneurs who would like to start own business are also interested in incentives, as well as foreign investors, having in mind that this measure has significantly affected attraction of foreign investments in the neighboring countries (Serbia). In 2011, the incentives for employment of the unemployed have affected increasing in the number of employees in these companies by 16% compared to the situation prior to approval of the incentives. The majority of users has maintained the number of the employed.

Table 4.

Name and brief description of measure	Institution providing implementation of the measure	Target group	Total program amount, 2013 or 2012	Maximum amount by company/applicant
1. Subsidies for incentive and development of economy				
Description: Co-financing of business companies' projects with the aim to improve their development and improve competitiveness. **Individual measures – co-financing:** • Introduction of modern technologies and modern equipment • Building of production facilities • Development of new products and materials, production processes and services • Consultancy services • Establishing of quality systems	Ministry of Industry, Energy and Mining	Business companies and entrepreneurs	2013 KM 19,600,000	KM 200,000
2. Incentives to development of agriculture and villages				
Description: Support to production and income, support to rural development, intervention measures and emergency needs. **Individual measures (specific to SMEs):** • Introduction of the quality system and food safety system • Support to agricultural fairs and exhibitions in the areas of agriculture and rural development and support to promotion • Expansion of the existing and establishing of new SMEs in rural areas	Ministry of Agriculture, Forestry and Waters	Agricultural farms, business companies and entrepreneurs	2013 KM 60,000,000	Depending on the type of incentive

Name and brief description of measure	Institution providing implementation of the measure	Target group	Total program amount, 2013 or 2012	Maximum amount by company/applicant
3. Incentives for employment in business companies of the Republic of Srpska				

Description:
Support to employers in employing the unemployed from the Institute of Employment as well as for self-employment.
 	
Individual measures:
• In underdeveloped and exceptionally underdeveloped municipalities, the funds are approved:
  - In the amount of кm 2,500 by employee for employment by an employer,
  - In the amount of кm 4,000 for self-employment
• In developed and medium developed municipalities, the funds are approved:
  - In the amount of кm 2,500 by employee for employment by an employer
  - In the amount of кm 3,000 for self-employment
	Ministry of Labor and Protection of War Veterans and the Disabled and Institute for Employment of the Republic of Srpska	Business companies and entrepreneurs	2013
			кm 7,000,000
				кm 2,500 by employee
				
				кm 4,000 for self-employment

4. Financial support to technology development projects				
Description: Support to technology development projects or participation in professional meetings on technology development. **Individual measures:** • Program for making expertise and elaborated reports for incentives related to technological development of areas significant for business development of the Republic of Srpska • Program for testing and introduction of new technologies and innovations for advancing technological level of production	Ministry of Science and Technology	Units of local self-governance, business organizations and public institutions	2013 кm 370,000	Depending on the project

Name and brief description of measure	Institution providing implementation of the measure	Target group	Total program amount, 2013 or 2012	Maximum amount by company/applicant
5. Earmarked funds for tourism development				
Description: Support to building of tourism infrastructure and tourism suprastructure (facilities connected to catering facilities). **Individual measures – support to:** • Construction, adaptation or reconstruction of tourism infrastructure and suprastructure • Preparation of horizontal and vertical touristic signalization • Support to start-up investments in SMEs in tourism • Projects of repair and restructuring of business companies • Subsidizing of interests on loans of commercial banks	Ministry of Trade and Tourism	Business companies and entrepreneurs in tourism	2013 KM 325,000	
6. Incentives for establishing of a quality system				
Description: Co-financing of establishing of a quality system and obtaining of a CE sign.	Ministry of Industry, Energy and Mining	Small companies	-	KM 10,000 per user
7. Support to development of business zones and incubators				
Description: Co-financing of adaptation or repair of space in business incubators and preparation of the studies and project documentation for business zones.	Ministry of Industry, Energy and Mining	Local self- governance unit	-	KM 14,000 per zone

Name and brief description of measure	Institution providing implementation of the measure	Target group	Total program amount, 2013 or 2012	Maximum amount by company/applicant
8. Subsidies to business companies in the areas of textile, leather and footwear				
Description: Support to the companies in this area fulfilling their tax and contributions based obligations.	Ministry of Industry, Energy and Mining	Business companies in the area of textile, leather and footwear	-	км 50 per employee
9. Loans for start-up business activities				
Description: • Loan purpose is purchasing of the fixed assets and working capital • Repayment period is up to 7 years, with grace period of up to 12 months and interest rate from 4.6% to 5.4%	RS Investment and Development Bank	Legal persons and entrepreneurs who operate for less than 3 years		From км 5,000 to 50,000 per user
10. Loans for entrepreneurs and companies				
Description: • Loan purpose: purchasing of fixed assets and working capital and refinancing of the existing loans • Repayment period from 1 to 15 years, with a grace period from 12 to 24 months and interest rates from 4% to 4.9%	RS Investment and Development Bank	Entrepreneurs and legal persons		From км 30,000 to 5,000,000

Name and brief description of measure	Institution providing implementation of the measure	Target group	Total program amount, 2013 or 2012	Maximum amount by company/applicant
11. Loans for agriculture and processing industries				
Description: • Purchasing of fixed assets and working capital, buying out of agricultural products from domestic producers, refinancing of the existing loans and payment of due tax obligations • Repayment period of up to 10 years, with a grace period of up to 36 months and interest rate of 4.0% (fixed)	RS Development and Investment Bank	Legal persons and entrepreneurs in agriculture, fisheries and processing industries		From км 50,000 to 5,000,000
12. Loan-guarantee lines for start-up				
Description: • Purchasing of fixed assets and working capital • Repayment period up to 7 years, with a grace period of up to 12 months and interest rates of 6.9%, risk premium of 3.20% to the guarantee amount	RS Guarantee Fund	Entrepreneurs and legal persons operating for less than 18 months		From км 3,000 to 40,000

Name and brief description of measure	Institution providing implementation of the measure	Target group	Total program amount, 2013 or 2012	Maximum amount by company/applicant
13. Loan-guarantee line for entrepreneurs				
Description: • Purchasing of fixed assets and working capital • Repayment period of up to 15 years, with a grace period of up to 24 months, maximum output interest rate of 6.6% and risk premium of 3.0% for the guarantee amount	RS Guarantee Fund	Entrepreneurs		From KM 3,000 to 300,000 for fixed assets and from KM 3,000 to 100,000 for working capital
14. Loan-guarantee line for business companies				
Description: • Purchasing of fixed assets and working capital • Repayment period of up to 15 years, with a grace period of up to 24 months, maximum output interest rate of 6.4% and risk premium of 3.1% for the guarantee amount	RS Guarantee Fund	SMEs		From KM 10,000 to 1,500,000 for legal persons for fixed assets and from KM 10,000 to 300,000 for working capital

Financial support to technology development projects is foreseen in a significantly smaller scope when compared to other incentives foreseen by the Republic of Srpska budget, however, their significance is quite huge. Development of technologies and application of innovations affect improvement of production, increasing the scope of business, creation of export possibilities to foreign markets, etc. In the previous two years, the amount of кm 200,000 was earmarked for these purposes. In 2013, the amount of кm 40,000 was foreseen for the same purpose.

Earmarked funds for tourism development are also available, as tourism presents a significant branch for development of the Republic of Srpska, having in mind that the area of hotels and restaurants has a significant share in the structure of business companies (13%). Support to business companies is particularly important for start-up business investments and introduction of quality standards. Adherence to the quality standard in tourism significantly improves the quality of services and attraction of foreign tourists to the area of the Republic of Srpska. In the previous two years, more than кm 500,000 was approved to SMEs in the area of tourism.

In addition to grants awarded to SMEs from the Republic of Srpska budget, significant assistance to this sector comes, of course, through the loan lines of the Investment and Development Bank of the Republic of Srpska. In the previous three years, the IDB has placed the total amount of about кm 350 millions to the SMEs, to over 370 users in the SMEs area. The credit line for business start-up is of particular importance as well as the fact that the funds are offered at a more favorable terms to the users from the underdeveloped areas of the Republic of Srpska, cluster members, etc. Business operations, at the time of crisis, significantly affect regularity of repayment of the approved loans, as well as previous debts, impossibility to realize the projects within the planned timeframe as well as impossibility to maintain the number of employees. However, the interest for the RS IDB is still huge, particularly since the loan lines, specifically created for SMEs of the World Bank, have been introduced.

Together with the Investment and Development Bank, a significant support to the SMEs is provided by the Guarantee Fund of the Republic of Srpska. In the previous two years, the Guarantee Fund of the Republic of Srpska has placed guarantees in the amount of over кm 5.5 millions. Together with the loan lines of the RS IDB, the guarantee lines are particularly significant for the majority of investments into SMEs. This product is relatively new for the SMEs and it will only gain its further significance in the future.

Support measures to development of SMEs in Una-Sana Canton

Measures of the USC Government, in the last three years, have been aimed at building of business infrastructure, improvement of access to capital, support to employment of the young, as well as mitigating of the economic crisis effects.

Institutional care for development of SMEs in the area of Una-Sana Canton, in the first decade of this century, was at a very low level, that is, if we exempt the incentives for agriculture, Una-Sana Canton has not significantly lagged behind in the process of creation of favorable business environment compared to the rest of BiH. As a consequence, Una-Sana Canton has significantly lagged behind in the process of creation of favorable business environment compared to the rest of BiH. Business infrastructure is underdeveloped, which is supported by the facts that the area of Una-Sana Canton has neither a business incubator nor technology parks.

At the Technical Faculty of Bihac University there is Center for Technology Development, which is mainly used for education of students, whereas cooperation with the private sector has not been developed. In the area of Una-Sana Canton, there are no business centers, while building of business zones has started in almost all the municipalities, though unfortunately, this was not preceded by serious analyses and studies, thus, partial successfulness in some of these zones may be confirmed only by some examples, while other locations are still far from the names they have. The fact that the Government of Una-Sana Canton has started development of specific incentive instruments is encouraging, such as loan-guarantee schemes, revolving funds, as well as introduced programs intended for specific groups of entrepreneurs.

The first systematic changes in the approach towards the sector of small and medium size entrepreneurship have been started by adoption of the Law on Incentivizing Small Businesses[3], which was adopted by the Government and the Assembly of Una-Sana Canton in the middle of 2011, with the aim to, amongst other, increase employment in the SMEs sector by developing the existing or founding new SMEs, as well as to increase their competitiveness, export of goods produced in this sector, etc.

In parallel with the adoption of the new Law, budget funds to incentivize development of the business infrastructure in Una-Sana Canton were budgeted and preparation of other incentive programs in Una-Sana Canton started. However, this process was made significantly poorer in the very beginning, primarily due to traditional and very slow administration for which these forms of support are new, but also for the fact that the budget deficit is more and more expressed thus the executive powers are unable to finance the planned programs in a desired scope.

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[3]   Available at http://skupstinausk.ba/dokumenti/zakon_o_poticaju_razvoja_male_privrede.doc

The situation is similar in all the Una-Sana Canton municipalities, with an emphasis that the institutional relation to the SMEs is different and a desire was noted, particularly in some municipalities of Una-Sana Canton, to respond to the needs of SMEs, in the best of quality, or to create as best and competitive surrounding as possible, which could attract new investors and encourage establishing of new companies.

During the last several years, the Government of Una-Sana Canton has established several measures/instruments of support to entrepreneurs. All the Una-Sana Canton Government measures, except the business zones development program, are of a one-time character, i.e. they have not been repeated in several budget years. The measures were mainly aimed towards the building of business infrastructure, improved access to capital, support to employment of the young, as well as mitigation of economic crisis effects that has been affecting our country for a number of years now, which is, generally speaking, in line with the needs of a small and medium sized entrepreneurship in Una-Sana Canton.

For the implementation of these instruments, the Government of Una-Sana Canton planned KM 1,220,000, in the budget of 2012, whereas somewhat less than KM 500,000 was realized, due to the deficit, while realization of the remaining part is being gradually done in 2013. For the same reason, it is planned that the 2013 incentive funds are not available now, instead, the programs of the previous year are being realized and, currently, there is no knowledge whether the funds planned for 2013 incentives will be available.[4]

Table 5. Review of all the support measures to entrepreneurs in Una-Sana Canton in the period 2011 – 2013

Measure	Amount in KM	Target groups	Year
Development of business zones in USC	800,000	USC municipalities	2011/2012
Quality Fund	20,000	SMEs in wood processing	2012
Support to start-up entrepreneurs	150,000	Specific group of SMEs[5]	2012
Employment support program	200,000	Specific group of SMEs	2012
Interest subsidy program	200,000	Specific group of SMEs	2012
Establishing LGF program in USC	250,000	SMEs	2012
Revolving fund	975,000	SMEs	2013

[4]   This is related to incentives for agriculture, which are only mentioned in this analyses, as these are incentives of a social character, whereas its users are mainly physical persons – milk producers, thus not included in detail in this analysis.
[5]   Invitation to award incentives is related to a specific group of SMEs. More information on specific groups to be found in analysis of measures.

Measure	Amount in км	Target groups	Year
Professional development	7,000	SMEs in wood processing and metal industry	2013

The most significant step forward was made in 2012, when a set (4) of programs was adopted for incentivizing of entrepreneurship in USC[6] that was mainly aimed at the young entrepreneurs and resolving of aggravated access to capital.

Donator support projects to development of the SMEs

TAM[7]/BAS[8] program

In addition to domestic actors, support to the economy was given through the donors' projects

TAM/BAS program is intended to provide support to development of small and medium-sized companies (SME). It is implemented by the European Bank for Reconstruction and Development (EBRD) and it is financed by the European Union. The aim of TAM/BAS program in BiH is to promote transition to the market economy through providing consultancy and mentorship to the SMEs on development of sustainable infrastructure of services, business counseling and providing contribution to the improvement of policies and regulatory framework for business.

Unified TAM/BAS program for BiH was initiated in November 2010 to last for 30 months. The program puts an accent onto projects that promote energy efficiency, environmental protection, the equality of gender and development of companies in rural areas, i.e. outside the largest cities.

TAM program, through adjusted training, has brought know-how of experts and experienced manages from developed countries to local companies, in all the area of their businesses.

TAM program. TAM program has started with activities in 1997. The biggest donator of the TAM program was the EBRD's multi-donor fund for the Western Balkans, supported by Japan, the EU, Canada, Italy and Denmark. The majority of supported programs was related to the sectors of **production of furniture and wood processing**, as well as to the **automobile sector and production of textile.**

[6]   Una-Sana Canton Government, the progrma adopted at 82nd session of the USC Government available at: http://www. vladausk.ba/v2/index.php?stream=vijest&vid=13964.
[7]   Turn Around Management.
[8]   Business Advisory Services.

It was founded with the aim to provide support to development of medium-sized companies through counseling on improvement of its management skills and business results. The companies are provided, through adjusted forms of training, with know-how of experts and experienced managers from developed countries about all the areas of their business. TAM program also offers cooperation through selection of the most appropriate local consultants for resolution of specific business problems and free-of-charge participation for selected companies in the first phase, while the companies, interested in the second phase, are expected to cover at least 50% of project costs.

Assistance includes business counseling in the areas such as: sales management, market analysis and planning, management and organization of production, finance management, organization, assistance in the application of the EU standards, strategic planning and establishing of international business contacts, as well as assistance in looking for finances. Each project is prepared in line with specific requirements of the company, whose management is requested to be strongly committed to work with experts.

Medium-sized companies of all the sectors are supported, except for the banking sector, the sector of finance services, production of weapons, prize games and production of alcohol and tobacco.

BAS Program. BAS program in BiH was established in 2001, under the financing of the EU Phare[9], Great Britain, EBRD CEI (Central European Initiative), Holland, Portugal and the very EBRD. The key component of support to the BAS grant, though which the companies with financial problems are assisted to be provided with appropriate consultancy services. The biggest part of the implemented projects was focused on introduction of the European standards (quality) to the BiH companies. The following significant goal included improvement of management effectiveness, as well as improvement of the market performances.

The purpose of BAS program is support to development of SMEs through providing of financial support for the usage of business advisory services and local consultancy services. The program dealt with activities of improvement of the local market of consultancy services, as well as cooperation with the institutions promoting development of the SMEs. Individual BAS projects have mainly lasted from 4 to 6 months. Through cooperation in selection of the local consultants, BAS program provided

BAS program has provided support to development of domestic companies through providing of financial support for usage of business advisory services and local consultancy services.

grants in the amount of 25% to 75% of the total net costs of the project, up to the maximum € 10,000 per project. Local consultancy companies were also able to participate in the BAS program, if they owned adequate experience, capacities, resources and expertise.

Assistance included business advisory services in the areas such as: energy efficiency, environmental protection, marketing, engineering, IT systems, standardization, searching of the business partners and investors, reorganization, preparation of business plans, etc.

USAID-Sida FIRMA project

FIRMA [Fostering Interventions for Rapid Market Advancement] is a five-year's [2009-2014] project financed by the American USAID [United States Agency for International Development] and Swedish Sida [Swedish International Development Agency] and it presents a kind of continuation of the USAID CCA project. A declarative goal of FIRMA project is to improve the ability of participants on the market (companies registered in BiH) to deal with the competitive pressure and market circumstances that rule in the EU.

Support of FIRMA project is aimed at the three selected sectors of the BiH economy: metal industry, wood processing industry, through the five so-called areas of competitiveness: product and productivity, market links, access to finances, training and education, as well as business environment.

Support to FIRMA project is focused on development of the value chain[10] in three selected sectors of BiH economy: metal industry, wood processing industry and tourism. Within each of these sectors, three value chains have been defined, that are attempted to be supported, as shown in the following table.

Table 6.

Sectors	Value chains		
Metal industry	Metal constructions and tools	Components and automobile industry parts	Aluminum
Wood processing industry	Furniture	Construction carpentry finish	Primary wood processing
Tourism	Outdoor tourism	Cultural and historical tourism	City break tourism

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[10]   In a part of Wikipedia organized by the USAID, it is stated that the notion of a value chain includes a chain of activities that a frim operating in a specific industry performs in order to deliver a valuable product or service from the concept to delivery to a final customer.

The available project documentation, as well as the very website of the project, does not precisely define in which manner were these sectors selected. It is stated that all the three sectors together give a closely one fourth of the produced GDP in BiH and that they provide almost 40% of export.

Support to FIRMA project includes acting through five, the so-called, competitiveness areas: products and productivity, market links, access to funds, training and education, as well as business environment, while the cross-cutting sectors include: access to financing, development of labor force, harmonization with the EU standards, inclusion about the issues of gender and inclusion of the young, as well as environmental protection.

Success of the project is measured by an increase of income, export and finances with the companies in the three targeted sectors. With the aim to collect and monitor these, as well as other data, in the beginning of 2010, a basic research was prepared, which was, then, periodically repeated once a year in order to update the data and monitor the project's success. Implementation of the project happens in cooperation with the partners' organizations and institutions called *value chain helpers*, with the aim to develop their capacities and provide sustainability of the project's results.

FIRMA project has not specifically focused on a certain geographic area; instead, it has included the whole of BiH. This is why, in the sense of selection and scope of adequate economic sectors, its relevance is of a limited significance for CREDO Krajina Project.

It may be assumed that the sectors of wood processing industry and tourism, supported by FIRMA project, were selected to provide continuity of the CCA project. A novelty is metal processing sector, which is why the text below will provide somewhat more detailed argumentation to support the selection of this sector.

The report prepared in 2010 for the needs of FIRMA project stated that the sector of light/metal industry, before the war, was a leading sector of the BiH economy and that, since 2003, it has achieved a significant growth. A conducted survey shows that this sector and its value chains have had a high growth potential, which is confirmed by the results of the basic implemented research. Also, it is concluded that the metal industry may significantly improve the export potential of final products, to have a critical role in the production structure of each industrially developed country as well as that it is valid for many other economic sectors, such as: construction of residential buildings, road building, transport, textile industry, wood processing industry, mining, food production, energy, etc.

Due to its traditional presence in BiH, the metal industry was the first which attracted interest of foreign agencies and investors after the end of war. However, a rapid recovery of the metal sector did not happen, above all, due to pretty damaged transportation and other infrastructure, the loss of regional and foreign markets, technological obsoleteness, slow privatization, as well as dependence on the continuation of production on the relatively huge capital investments.

Entry of significant foreign investments in the metal sector of BiH ((Mittal Steel, Cimos BiH, Mann Hummel, Aluminij dd Mostar, Alloy Wheels Jajce, Fad Jelah, etc.) has open the international market for these products. At the same time, some of the customs and technical barriers with the EU were removed and transportation logistics was improved. Significance of foreign markets for the BiH metal sector, in the sense of possibilities to increase production, is by far bigger than the domestic market, because of its limited size. And while domestic demand in some segments of the metal sector was high, in the other (such as automobile industry) it made the total of some 20%.

Regardless to discontinuity of its market presence, individual companies from the metal sector have managed to renew a part of earlier market contacts, regain customers' trust and stay recognizable on the European market. On the other side, some new companies have quite fast become market leaders in their industries (eg. Prevent, Cimos, etc.) and their success has directly contributed to the appearance of lots of smaller companies – subcontractors and suppliers, which have practically created new value chains around the central companies.

The basic reasons for which BiH may be counted in the countries that may be competitive in the metal sector (black and colored metallurgy, metal industry, mechanical engineering industry, semi-products made of metal, etc.) are low prices of labor force and energy, as well as location advantages in the sense of closeness to the European market. Also, neither technological knowledge nor industrial culture are negligible factors in this sector.

Obstacles standing in the way to development of the metal sector of BiH, as mentioned by FIRMA project, are the following: negative market perception of BiH products (on foreign markets), insufficient knowledge of modern management in companies, administrative barriers to work on projects in the EU, poor connections with the prospective markets, high price of financing sources for both current capital and investments and, above all, continuously present drop of demand caused by global recession movements. Additionally, as the problems standing in the way to development of the metal sector, at a meeting with metal industry producers from Una-Sana Canton, held in the

beginning of 2013, the following were identified: lack of adjustment of education system with the labor market needs, administrative procedures that make operation of companies more difficult, as well as the lack of adequate institutional support to the existing and new domestic and foreign investors and exporters.

Example of support measures to SMEs in the region – Republic of Serbia

Economic progress and development of Serbia implies development of market economy based on knowledge, new technologies and innovativeness. Special contribution in realization of this goal is expected from small and medium-sized companies and entrepreneurs.

Having in mind significance of this sector on one side and its situation on the other, it is clear that it is necessary to provide mechanisms and measures to contribute to increasing competitiveness of SMEs, hence of the overall economy as well.

Strategy of development of competitive and innovative SMEs for the period 2008 to 2013 in Serbia defines that the basic vision of economic development is: **Development of entrepreneurial economy, based on knowledge and innovativeness, which creates a strong, competitive and export-oriented sector of SMEs and significantly contributes to increasing of the living standard in the Republic of Serbia.**

With the aim to directly support increasing of competitiveness, a bigger number of programs and projects are being realized, directly aimed towards the MSEs and their associations.

Continuation of this analysis provides a brief overview of programs, measures and activities for improvement of competitiveness of the SMEs in Serbia.

Unlike BiH, support to the economy in the Republic of Serbia is based on the main strategic focuses and, as such, it is much larger in scope, more effective and more efficient.

Table 7.

Type of support	Brief description	Implementator	Total funds/ services	Company benefits
1. Program of support to development of competitiveness of SMEs and entrepreneurs in 2013.	Strengthening competitiveness of SMEs, entrepreneurs and holdings, through harmonization of their business operations with the requirements of international business standards, improvement of business processes, products and services and strengthening of human resources.	National agency for regional development www.narr.gov.rs in cooperation with accredited regional agencies.	Total funds for realization of the Program amount to cca KM 600,000.00.	Within the Program, projects are co-financed in the amount of up to 50% of the total value of an approved project. Individual grants that may be approved amount to cca KM 900.00 to cca KM 7,000.00 for the first group of activities, i.e. from cca KM 900.00 to KM 14,000.00 for the second group of activities. A half of the approved funds is awarded to the user immediately after conclusion of the contract, while the rest is awarded after submission of the final report by the user.
2. Program of support to development of innovation clusters in 2013.	Increase of productivity and competitiveness of SMEs and entrepreneurs, by connecting them into clusters and strengthening cooperation of SMEs and entrepreneurs with scientific and research organizations.	Ministry of Regional Development and Local Self-Governance at http://www.mrrls.gov.rs National Agency for Regional Development at www.narr.gov.rs	Total funds for realization of the Program amount to cca KM 230,000.00.	Within the Program, projects are co-financed in the amount of up to 50% of the total value of an approved project. Individual grants that may be approved amount from cca KM 3,500.00 to KM 26,000.00 for newly founded innovative clusters, that is, from cca KM 14,000.00 to KM 69,000.00 for the existing innovative clusters. A half of the approved funds is awarded to the user immediately after conclusion of the contract and the rest after the submission of the final report by the user.

Type of support	Brief description	Implementator	Total funds/ services	Company benefits
3. Program of support to SMEs that are in a start-up phase	Increasing a degree of sustainability and strengthening of competitiveness of SMEs and entrepreneurs who are in a start-up phase of business and operate in the area lagging behind in development of this sector compared to the other parts of Serbia.	Ministry of Regional Development and Local Self-Governance at http://www.mrrls.gov.rs and National Agency for Regional Development www.narr.gov.rs	Total funds for realization of the Program amount to cca кm 210,000.00.	Within this Program, projects are co-financed in the amount up to 75% of the total value of an approved project. Individual grants that may be approved amount to from cca кm 900.00 to кm 6,000.00. The overall amount of the approved funds is placed upon the end of the project, that is, upon submission of proofs on earmarked spending of funds.
4. Program of support to innovative fast-growing companie	Support to strengthening innovativeness of fast-growing SMEs and entrepreneurs and holdings for the purpose of increasing competitiveness.	National Agency for Regional Development at www.narr.gov.rs in cooperation with accredited regional agencies.	Total funds for realization of the Program amount to cca кm 600,000.00...	Within the Program, projects are co-financed in the amount of up to 50% of the total value of an approved project. Individual grants may neither be smaller than cca кm 1,700.00 nor larger than cca кm 26,000.00, depending on the approved purpose of the funds. 30% of the approved amount is paid immediately upon conclusion of contract and the rest upon finalization of activities and providing of proofs on purposeful spending of the funds.

Type of support	Brief description	Implementator	Total funds/ services	Company benefits
5. Mentoring for 100 newly founded and existing SMEs and entrepreneuers	Increasing of possibiitlies for survival and development of SMEs and entrepreneurs which are at a decisive moment for further development.	National Agency for Regional Development in cooperation with partners' organizations and centers at www.narr.gov.rs	Non-financial support to 100 SMEs and entrepreneurs, each 50 hours of mentoring.	SMEs and entrepreneurs, which fulfill the following requirements: dealing with production or providing of services; being in a majority domestic private ownership and being registered on the territory of Serbia; having a positive business result in the previous year (for the second group of users); not being in the area of military industry and prize game organizations. The users of the Program are divided in two groups: 1) newly founded business companies (SMEs and entrepreneurs registered after 1st March 2012); 2) existing business companies (SMEs and entrepreneurs registered prior to 1st March 2012).
6. Program for improvement of investment readiness	Improvement of potentials of innovative SMEs and entrepreneurs with a high growth potential for the usage of the ownership capital with the aim to finance business operations.	Program is being implemented by the National Agency for Regional Development.	100 SMEs and entrepreneurs in the first phase of the Program, that is, 20 in the second phase.	Daily training for 100 SMEs and entrepreneurs about the models of financing business development, then, additional two-day training for 20 SMEs and entrepreneurs, which have undergone the first phase of training and who have a high growth potential. The Program enables to the users to improve the potentials for presentation of development and attraction of investors, above all, the risk capital funds.

Type of support	Brief description	Implementator	Total funds/ services	Company benefits
7. Program of early development	Incentivizing of commercialization of research and development, as well as further development of innovative knowledge-based companies.	Innovation Fund at www.inovacioni-fond.rs.	The funds are not limited due to the manner of financing.	The Fund co-finances up to 85% of the total funds of an approved project and the user is obliged to provide for the rest. Maximum budget that may be approved by the Fund is EUR 80,000.00.
8. Program of co-financing the innovation	Incentivizing of cooperation with international companies and organizations; increasing in the number of technological companies and their preparations for new investments.	Innovation Fund at www.inovacionifond.rs.	The funds are not limited, having in mind the manner of financing. It is an ongoing program.	The Fund co-finances up to 70% of the total funds of an approved project and the user is obliged to provide for the rest. Maximum budget that may be approved by the Fund is EUR 300,000.00.
9. Program of support to small companies and entrepreneurs to purchase equipment in 2013.	Strengthening of competitiveness, innovativeness and internationalization of SMEs and entrepreneurs and creation of new jobs through investing in equipment.	Ministry of Finances and Economy at www.mfp.gov.rs in cooperation with the National Agency for Regional Development at www.narr.gov.rs	Total funds for realization of the Program amount to cca KM 1,710,000.00.	Within the Program, projects are co-financed in the amount of up to 25% of the total value of an approved project. Individual grants that may be approved amount to from cca KM 4,300.00 to cca KM 43,000.00.

Type of support	Brief description	Implementator	Total funds/ services	Company benefits
10. Program of incentivizing competitiveness and internationalization of Serbian economy.	Strengthening of international competitiveness of Serbian economy through support of competitive capacities.	Serbia Investment and Export Promotion Agency www.siepa.gov.rs.	Total funds for realization of the Program amount to cca KM 1,720,000.00.	Within the Program, projects are co-financed in the total amount from 50% to 75% of the value of an approved project, depending on the defined area of support.

4. Sectoral economic/financial analysis

Agriculture, fishery and forestry

The sector of agriculture, forestry and fishery has an important role in BiH, because it creates around 7% of GDP. Bosnia and Herzegovina has natural resources and conditions that make good environment for agricultural production, including availability of work force, soil and other natural resources, as well as the favorable climate. However, agricultural potentials are only partly exploited, in spite of the significant human and natural resources.

This sector presents the key supplier of production inputs for other sectors, especially for the sector of food industry, and in that sense it is less sensitive to disturbances in the economy as a whole. That is the reason the financial and economic crisis had much less impact on this sector than on the sectors directly dependant on the export.

It must be emphasized here that the data on companies in this field were only used in making this analysis, while the farms, having the majority of production, were not included. The reason for that is that there are still no data on these farms that could enable such kind of quantitative and qualitative analysis.

Sector of agriculture, forestry and fishery employs 2,676 employees in 398 companies registered for these activities. This sector is in the 9th position by the number of employees, but this position is much higher in reality, for many people work in agriculture, but are not registered as such.

After the "helicopter" view of the state of economy, in the fourth part we come even closer to individual sectors and we deepen the analysis for each of these sectors. Here we will state the major conclusions.

The total income realized in 2011 in all 34 municipalities in this sector was км 287 million. Out of that, км 37 million were exported, and the profit was км 7 million. It shows that the sector as a whole is profitable and is not significantly dependant on the export.

Chart 11. Income, export and profit in agriculture, forestry and fishery sector, 2011 (in км million)
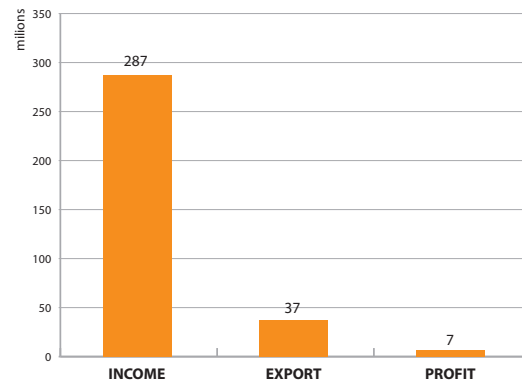
Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

Characteristics of the sector of agriculture, forestry and fishery are much more obvious from the data on profit rate, return on assets (ROA) and ratio of export in total income, in the chart below.

Chart 12. Profit rate, ROA and export ratio in total income, in the sector of agriculture, forestry and fishery
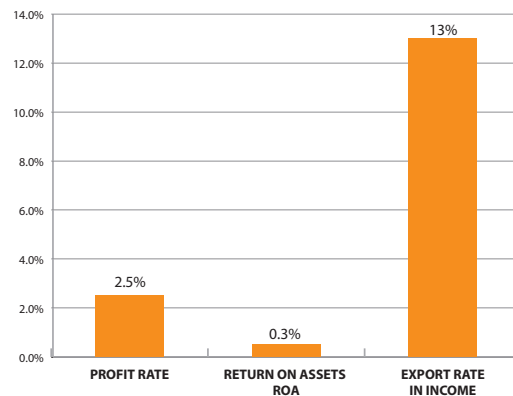
The sector of agriculture, for-
estry and fisheries is operat-
ing with positive business re-
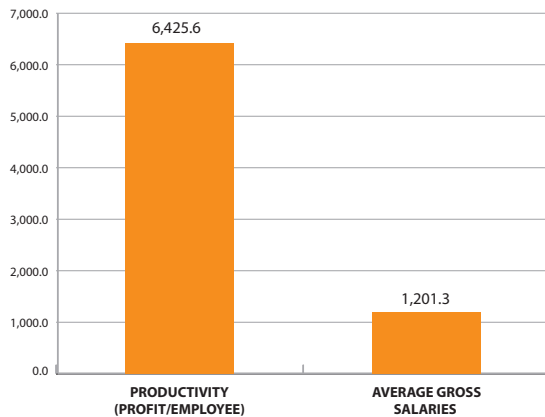sults, but it is far from being
locomotive of development,
on its own.

Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

As mentioned earlier, this sector is profitable, but its profit rate and especially its return on assets are considerably low, while only the small part of the total production is exported. Simply stated, for those engaged in such economic activities the profit is minimal and they are mainly oriented to domestic market.

However, the sector of agriculture, forestry and fishery still has the capacity to employ new employees. In the chart below – the Chart 13, which represents the ratio of sector productivity and earnings (in KM), we can see how much company profit is created by one average employee and how much does his engagement cost the company

Chart 13. Ratio of productivity and earnings in sector of agriculture, forestry and fishery (in KM)
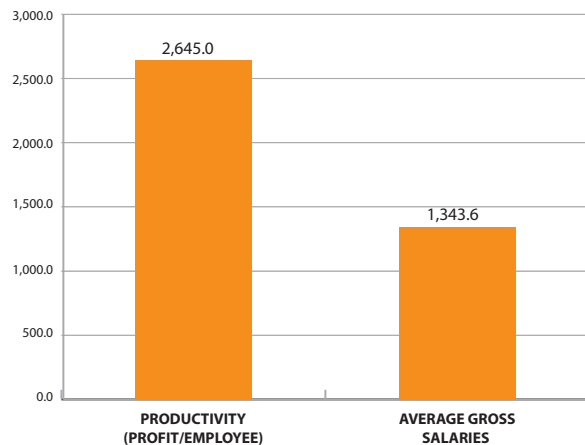
Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

We see that this ratio is about 1 : 2, i.e. that the average employee in this sector earns two salaries to his employer. That means that it is profitable for the employer to recruit new employees, and that there is the capacity for new employments.

Food and beverages production

The growth of the food industry is conditioned by the growth of the primary agricultural production. The growth of the primary agricultural production in the post-war period enabled the increase of

the food industry ratio in the total industry production. The food industry in the region of Krajina was considered developed even during 1980s and the beginning of 1990s, and as such it managed to follow the world trends. Business financial results are still positive in the majority of companies, as they have been for years. Their products have buyers both in the domestic market, and to some extent in the foreign market.

Food industry sector employs 4,963 employees in 398 companies registered for this business. This is the 6th sector by the number of employees, and the third one by the size among the sectors of the processing industry.

The total realized income in 2011 in all 34 municipalities was кm 680 million. Out of that, кm 100 million was exported, and кm 32 million was the realized profit. It shows that the sector as a whole is profitable and that it is mainly oriented to domestic market, and to some smaller extent to foreign market.

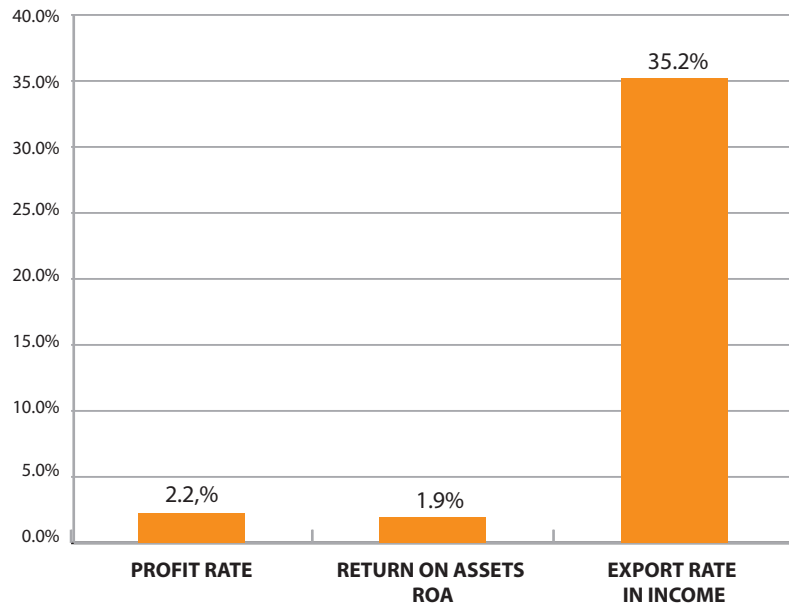*Chart 14. Income, export and profit of food industry sector, 2011 (in кm million)*
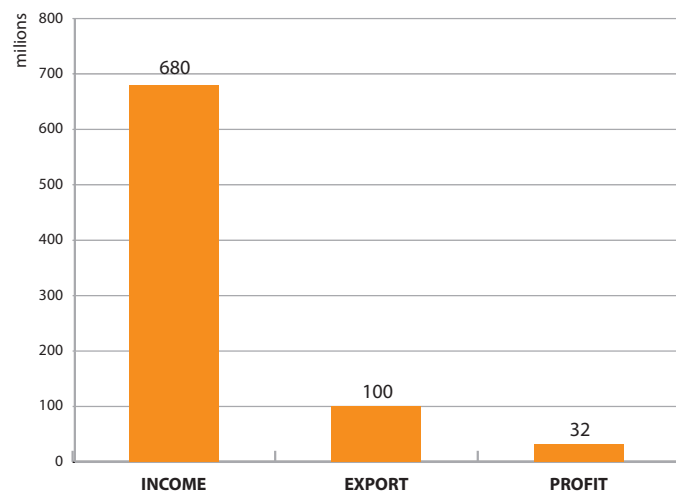
Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

Characteristics of the food industry are much more obvious from the data on profit rate, return on assets (ROA) and export ratio in the total income, in the following chart.
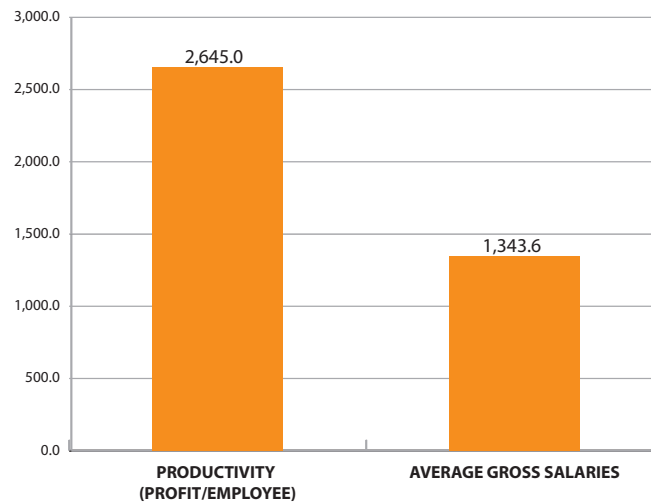
Chart 15. Profit rate, ROA and export ratio in the food industry income
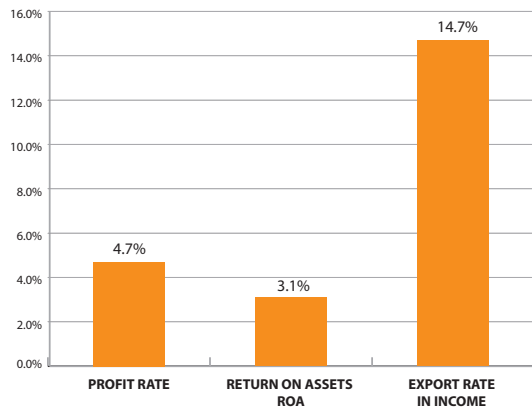
Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

Food processing industry operates pretty well and it has significant potential for development

As already mentioned, this sector is considerably profitable, and its profit ratio and return on assets are solid. Simply stated, ones engaged in these economy activities realize solid profit and are mainly oriented to the domestic market. In addition, the food industry sector has a good opportunity of new employments. In the chart below – Chart 16, we can see how much profit for the company the average employee creates and how much does he cost the company.

Chart 16. Productivity and earnings ratio in food industry sector (in км)

Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

We see this ratio is about 1 : 5.3, i.e. that the average employee in this sector earns for his employer the amount 5.3 times higher than his salary. That means that it is profitable for the employer to recruit new employees, and, accordingly, that there is the plenty of room for new employments.

Textile

Textile and clothing industry have very important place in the economy of BiH, because of the years-long tradition, significant number of employees and relations to European and world partners. Despite of the dynamic challenges of the world market, the textile industry still survives.

Unlike the whole BiH, textile industry does not play significant role in the field covered by CREDO Krajina Project. It is especially obvious in the number of companies, and even more in the income realized by this sector.

Textile sector employs 1,809 employees in 111 companies registered for these business activities. This is the 11th sector by the number of employees, and it participates in the total income with minimal 0.56%.

Chart 17. Income, export and profit of the textile sector, 2011 (in км million)
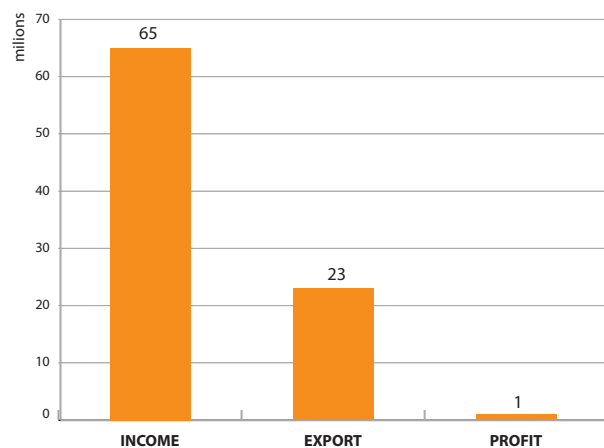
Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

The total income of this sector realized in 2011 in all 34 municipalities was only км 65 million. Out of that, км 23 million was exported, and км 1 million was the realized profit. It shows that the sector as a whole is profitable and that it is significantly oriented on export.

Characteristics of the textile sector are more obvious from the data on profit rate, return on assets (ROA) and export ration in the total income, in the chart below.

Textile industry is on the verge of cost-effectiveness and it is unlikely to get out of these problems in a while.
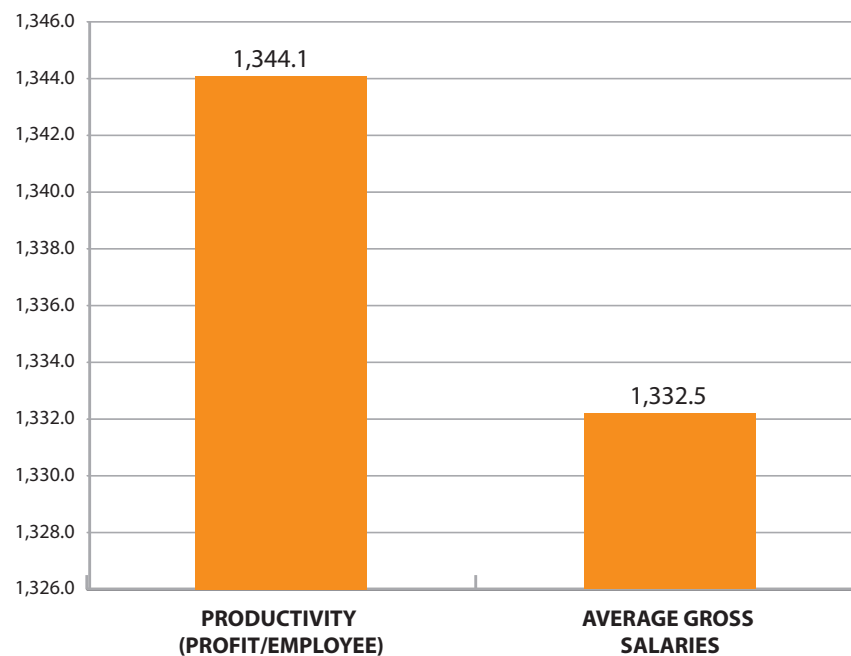
Chart 18. Profit rate, ROA and export ratio in textile sector income

Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

As mentioned earlier, this sector is profitable, but its profit rate and return on assets are considerably low, and a little over one third of its production is being exported. These are mainly the so-called "lohn" jobs, where basically only the workforce is rented.

However, this sector still has capability to employ new employees. In the chart below we can see how an average employee created the profit for the company and how much his earnings cost the company in the textile sector.

Chart 19. Productivity and earnings ratio in textile sector (in км)

We see that this ratio is around 1 : 2, i.e. that the average employee in this sector earns his two salaries for his employer. That means that it is still profitable for employers to recruit new employees, and that there is a room for new employments.

Paper production and publishing/printing business activity

Production of paper and publishing/printing business activity is the small sector which covers the production of paper and paper products, printing of books, booklets, brochures, magazines, journals, catalogues, sheets, and different kinds of forms.

Paper production and publishing/printing activities employ 1,537 employees in 114 companies registered for such business activities. The total income realized in 2011 in all 34 municipalities in this sector was км 165 million. Out of that, км 34 million was export, and the profit was км 2 million. It shows that the sector as a whole is profitable and that it is hardly export oriented.

Chart 20. Income, export and profit in paper production and publishing/printing business activity, 2011 (in км million)
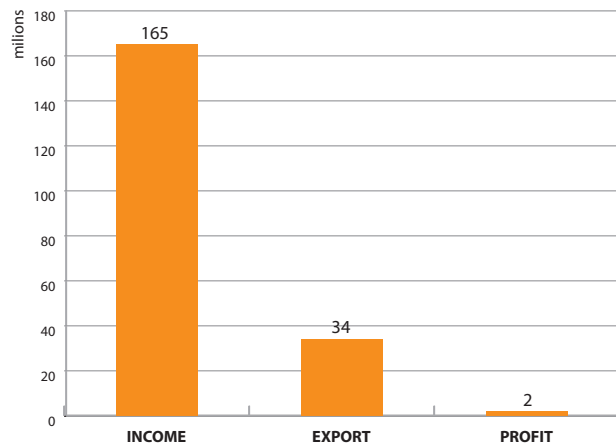
Characteristics of the textile sector are more obvious from the data on profit rate, return on assets (ROA) and export ration in the total income, in the chart below.

Chart 21. Profit rate, ROA and export ratio in income of the sector of paper production and publishing/printing
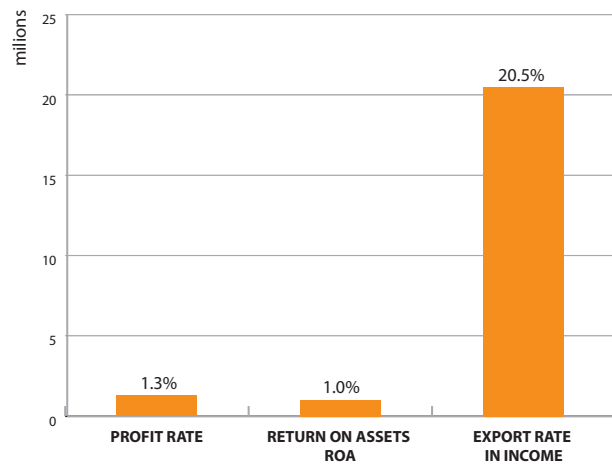
Production of paper and publishing and printing activities used to be one of the locomotives of development of this area, but this is not the case anymore.

As mentioned earlier, this sector is profitable, but its profit rate and return on assets are considerably low, while a little over one fifth of the total production is being exported. Also, this sector has no capability of new employment. The chart below shows how much profit one average employee creates for the company and how much does his earning cost his company in the this sector.

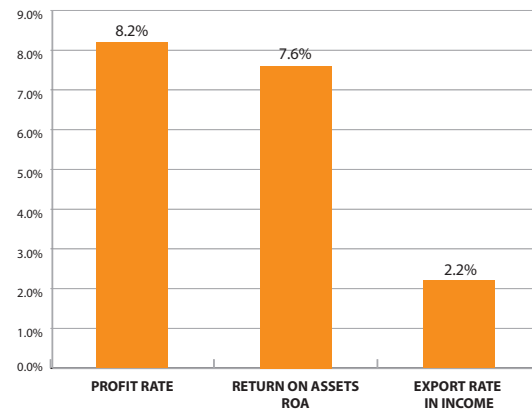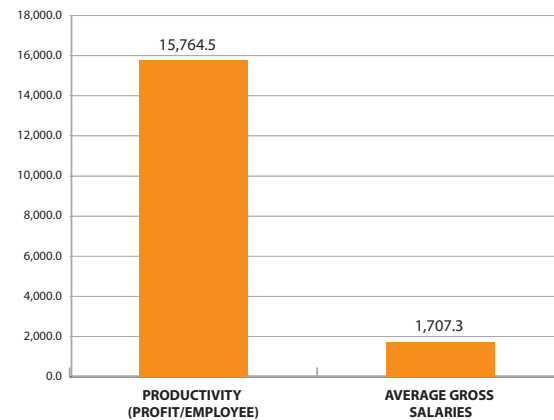*Chart 22. Productivity and earning ratio in paper production and publishing/printing (in KM)*

Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

We can see that this ratio is around 1 : 1, i.e. that the average employee in this sector earns for his employer a little over his own salary. That means that it is not profitable to employ new employees, and that there is no room for new employments.

Production of chemicals

The production of chemicals is a very small sector by the number of employees, income and export, in the area covered by the CREDO Krajina Project. Companies in this industry branch chemically process plant, animal and mineral raw materials and produce detergents, dyes and lacquers, pharmaceutical products, etc.

Chemicals production sector employs 516 employees in 42 companies registered for such business activity. The total income realized in this sector in 2011 in all 34 municipalities was only км 99 million. Out of that, км 2 million were exported, and км 8 million was the realized profit. It shows that the sector as a whole is profitable and that it is not export oriented.

Chart 23. Income, export and profit in chemicals sector, 2011 (in км million)
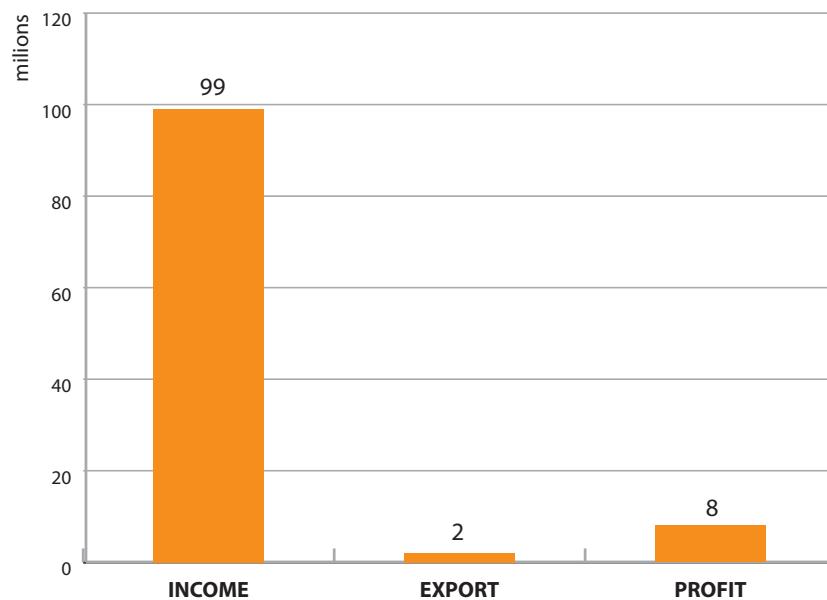
Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

Those characteristics of the chemicals sector are much better shown in data on profit rate, return on assets (ROA) and export ration in total income, in the following chart.

Chart 24. Profit rate, ROA and export ratio in income of chemicals sector, 2011

Production of chemicals is exceptionally profitable, however this sector is very small and it employs a small number of employees.

Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

As already mentioned, this sector is profitable and its profit rate and return on assets are good, and only 2.2% of the total production is being exported.

This sector also has great capability of new employment. In the following chart it is shown how much profit one average employee creates for the company, and how much his earnings cost the company.

Chart 25. Productivity and earnings ratio in the sector of chemicals (in KM)

Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

It is obvious that this ratio is around 1 : 9, i.e. that the average employee in this sector earns for his employer amount equal to nine of his salaries. It also means that it is profitable to recruit new employees, and therefore there is huge capacity for new employments.

Leather and footwear production

The region of the CREDO Krajina Project implementation has a long tradition and a good international reputation related to the leather and footwear industry. There has been some improvement in modernization of production units and introduction of new technologies, in order for the sector to become the part of the global market. This region has experienced and qualified workforce, with good knowledge and practical experience. Being close to the markets of Western and Eastern Europe is its main advantage.

Leather and footwear industry has the capacities and good reputation in German and Italian markets. New partnerships brought new equipment and know-how to the company management.

Leather and footwear sector employs 4,150 employees in 44 companies registered for those business activities. This sector is in the 7th position by its number of employees.

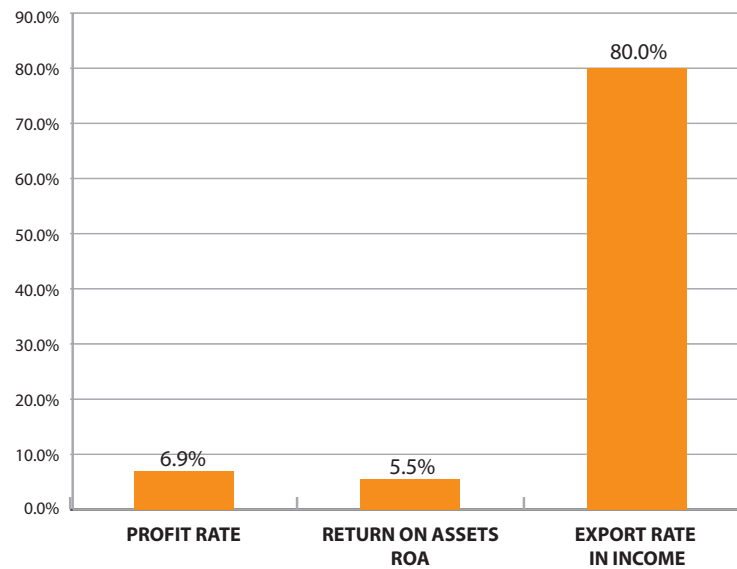*Chart 26. Income, export and profit in the leather and footwear sector, 2011 (in км million)*
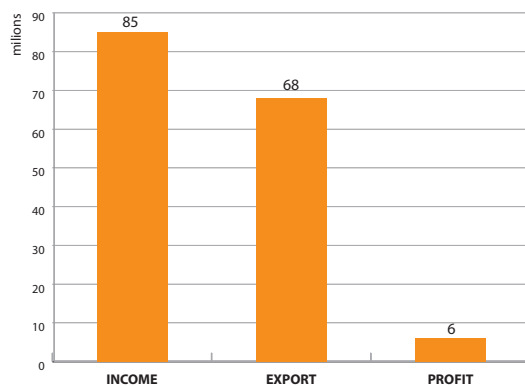
Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

The total income realized in this sector in 2011 in all 34 municipalities was км 85 million. Out of that, км 68 million was exported, and the realized profit was км 6 million. It shows that the sector as a whole is profitable and that it is strongly export oriented.

The characteristics of this sector are more obvious in the data on profit rate, return on assets (ROA) and export ratio in the total income, in the chart below.

Chart 27. Profit rate, ROA and export ratio in the income of leather and footwear sector

Production of leather and footwear operates on a solid basis, with a lot of export and employing a large number of employees.

Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

As mentioned earlier, this sector is profitable, its profit ratio and return on assets are good, and the major part of its production is being exported.

This sector also has the capacity to employ new employees. The chart below shows how much profit one average employee creates for the company, and how much his earnings cost the company.

Chart 28. Productivity and earnings ratio in leather and footwear sector (и км)
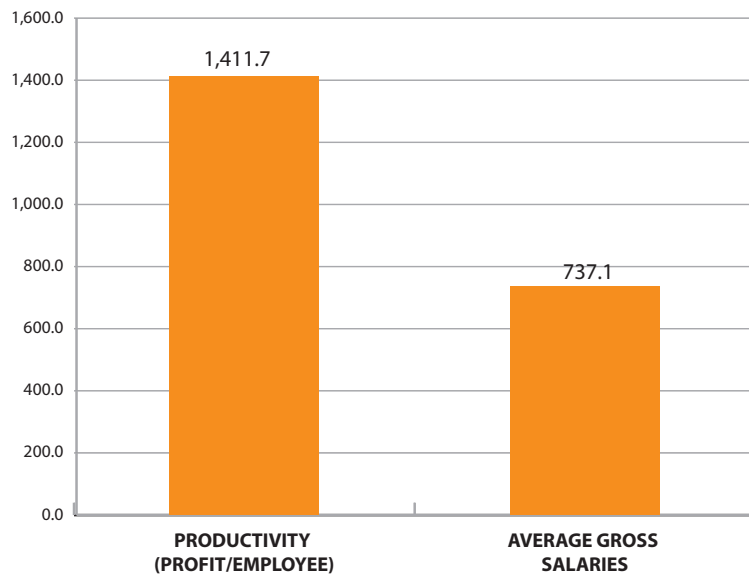
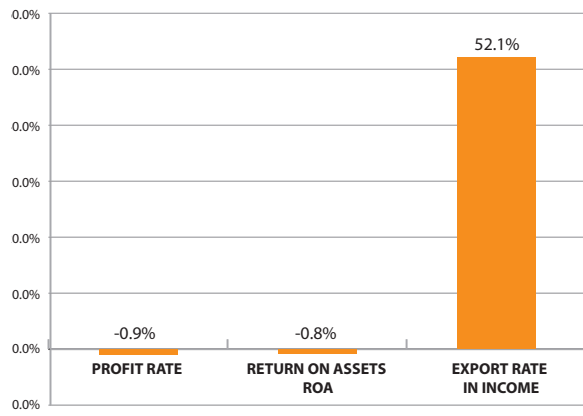*Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities*

This ratio is around 1 : 2, i.e. the average employee in this sector earns his employer the amount equal to his two salaries. It means that it is profitable to employ new employees and that there is capacity for new recruitments.

Wood processing

BiH has a long tradition of quality wood raw material and furniture production that satisfy the domestic, but also the international demand. Relatively cheap and skilled workforce ensure the competitive advantage for the furniture industry. However, this field has not been able to completely realize this advantage so far, mainly due to the lack of skills in creating the final products.

Key factors in this sector include the availability of good wood raw material, cheap workforce, and modern market oriented design. The presence of the first two factors, and the possibility to adopt

the designing skills through the purchase of somebody else's design solutions, show that this sector presents the strong basis for production of competitive products for export.

Wood processing sector employs 5,881 employees in 432 companies registered for such business activities. This sector is 4th by its number of employees, and at the same time it is the largest sector of processing industry.

The total income realized in this sector in 2011 in all 34 municipalities was кm 418 million. Out of that, кm 218 million was exported, and кm 4 million is the loss at the level of the whole sector. It shows that the sector as a whole is not profitable and that it is mainly export oriented.

Chart 29. Income, export and profit in the wood processing sector, 2011 (in кm million)
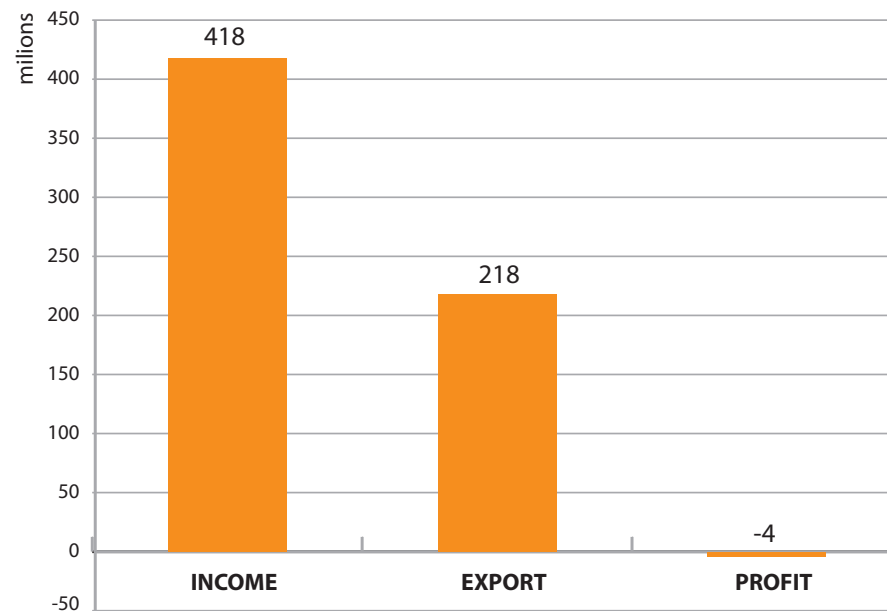
Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

However, there is one problem with this sector. When the data for all the companies are analyzed (432 companies), the situation is relatively bad. The whole sector is on a downside and all indicators

are negative. That is not in accordance with previous analyses[11], which claimed the wood processing to be the competitive advantage of BiH.

The picture changes if only 11 companies out of 432 are left out, especially those privatized or created during the privatization process. Then, the performance of this sector becomes very good. Instead of 0.9% loss, the profit ratio becomes 3.9%, and it is similar with other performance indicators. It is obvious that privatized companies or companies created in the process of privatization operate at a loss, not so much due to the wood industry being uncompetitive in this region, but for internal reasons.

Chart 30. Profit rate, ROA and export ratio in wood processing income

a) 432 companies

b) 421 companies
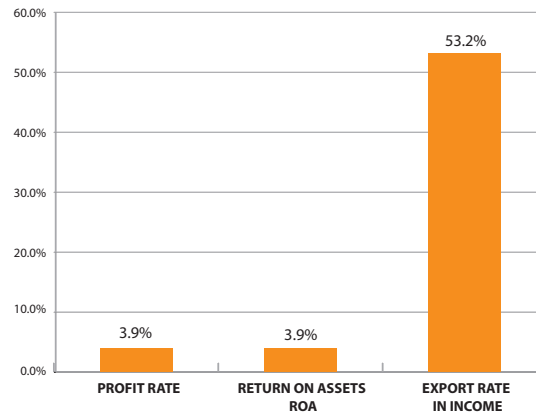
Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

Although some companies, inside the wood processing sector, have significant internal problems, the sector, on the whole, operates well and it has shown a significant potential for future development.

The fact that the sector is profitable if the financial results of 11 problematic companies are left out must be taken into account. Also, its profit rate and return on assets are good, and the majority of its total production is being exported.

Leaving out the 11 excluded companies, this sector has significant capacity to employ new employees. The chart below shows how much profit one average employee creates for the company, and how much his earnings cost the company.

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[11] Value chains mapping in BiH.

Chart 30. Productivity and earnings ratio in the sector of wood processing, 421 companies (in KM)
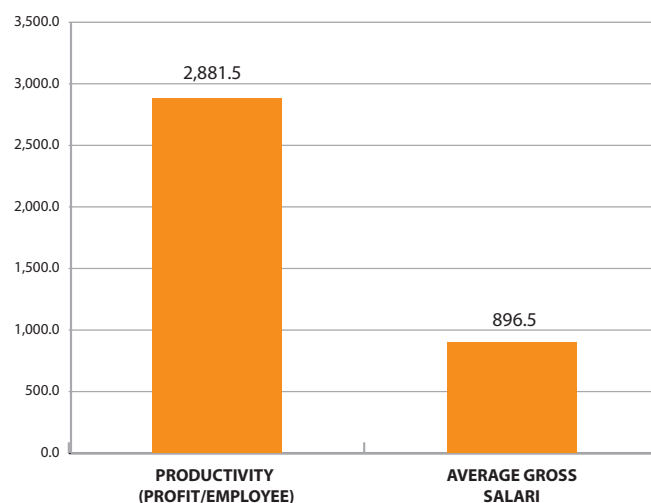
Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

This ratio is around 1 : 3.2, i.e. the average employee in this sector earns his employer the amount 3.2 times higher than his salary. It means that it is profitable to employ new employees and that there is capacity for new recruitments.
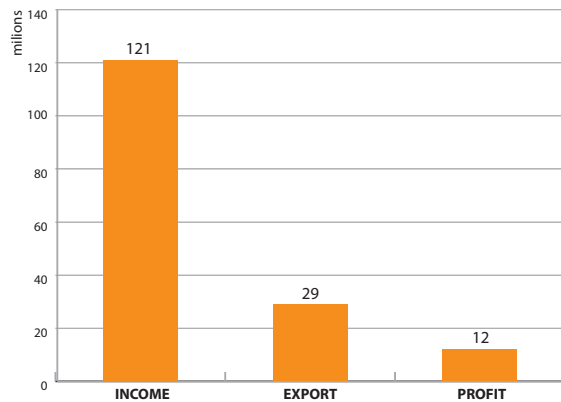
Rubber and plastics

Although the production of rubber and plastics is a relatively small sector (by the number of employees, income and export) in the region covered by this Project, this industry is very important for economy and for the citizens. It supplies the market with products that mark the modern way of life. First of all, the packaging that guards the products and makes their transport easier, than the parts and assemblies that are crucial components in metal, wood and other industries, and many other products of general usage without which the modern life is inconceivable.

Rubber and plastics sector employs 916 employees in 92 companies registered for these business activities. The total income realized in this sector in 2011 in all 34 municipalities was only KM 121

million. Out of that, км 29 million was exported, and the realized profit was 12 million. It shows that the sector as a whole is profitable and export oriented.
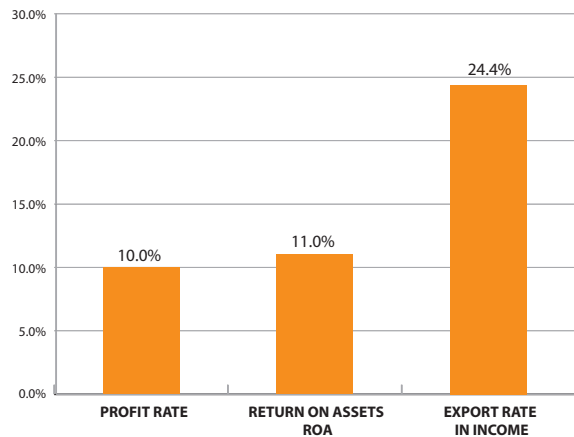
Chart 31. Income, export and profit of the rubber and plastics sector, 2011 (in км million)

Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

Characteristics of the rubber and plastics sector are more obvious from the data on profit rate, return on assets (ROA) and export ratio in the total income, in the chart below.

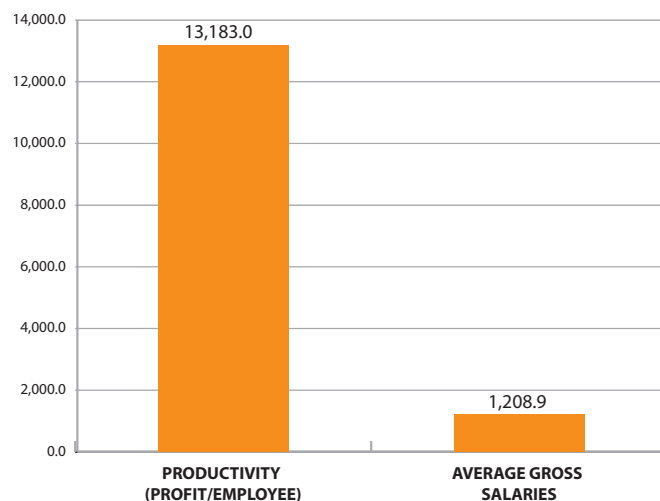*Chart 32. Profit rate, ROA and export ratio in rubber and plastics sector income, 2011*

Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

Rubber and plastic sector is exceptionally profitable and, in addition to production of finished goods, it serves as important support to the food processing, metal and other industries.

As stated before, this sector is profitable, its profit rate and return on assets are good, and around one quarter of the total production is being exported.

This sector also has a large capacity to employ new employees. The chart below shows how much profit one average employee creates for the company, and how much his earnings cost the company.

Chart 33. Productivity and earnings ratio in rubber and plastics sector (in км)

Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

This ratio is around 1 : 11, i.e. the average employee in this sector earns his employer the amount eleven times higher than his salary. It means that it is profitable to employ many new employees and that there is a large capacity for new recruitments.
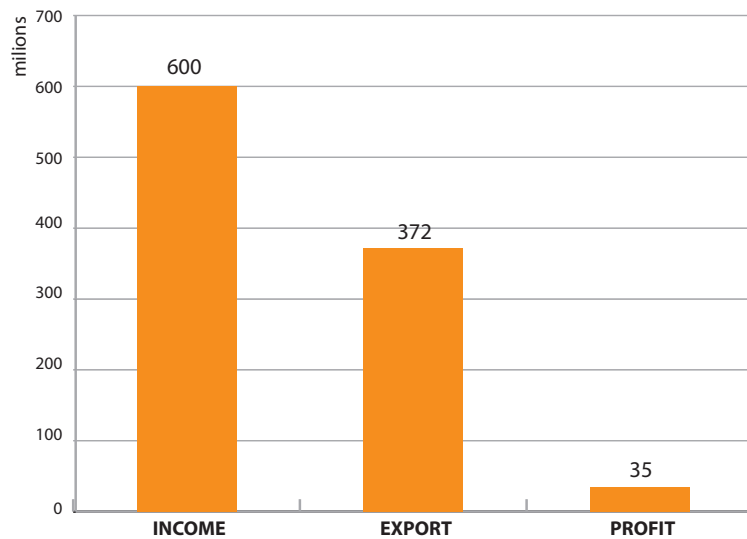
The metal industry

The metal industry is the leading economy branch in BiH. This sector has great potentials, strong human and resource basis, as well as a long tradition that enables development of different activities.

This industry showed vitality in production renewal and readiness to introduce new technologies, both in the whole BiH and in the selected 34 municipalities. Production increase in the metal industry has been followed by the development of processing companies. Due to tradition, quality workforce and knowledge in this field, the technical capacities for mold casting, precision casting, cutting, stamping, pressing, formatting, processing and welding, and all those are the basis of metal products and assemblies production. This sector still has the potential to significantly increase the sale, export and employment.

The metal industry sector employs 5,104 employees in 308 companies registered for such business activities. This sector is 5th by the number of employees, and it is the second processing sector by the size, right behind the sector of wood processing.

The total income realized in 2011 in this sector in all 34 municipalities was KM 600 million. Out of that, KM 372 million was exported, and the profit was KM 35 million. It shows that the sector as a whole is profitable and largely export oriented.
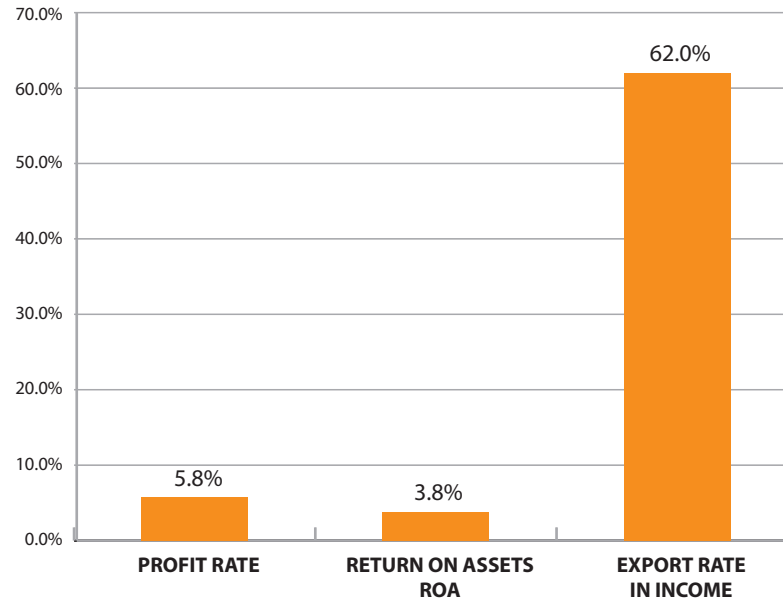
Chart 34. Income, export and profit of the metal industry, 2011 (in KM million)

Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

Characteristics of the metal industry are more obvious from the data on profit rate, return on assets (ROA) and export ratio in the total income, in the chart below.
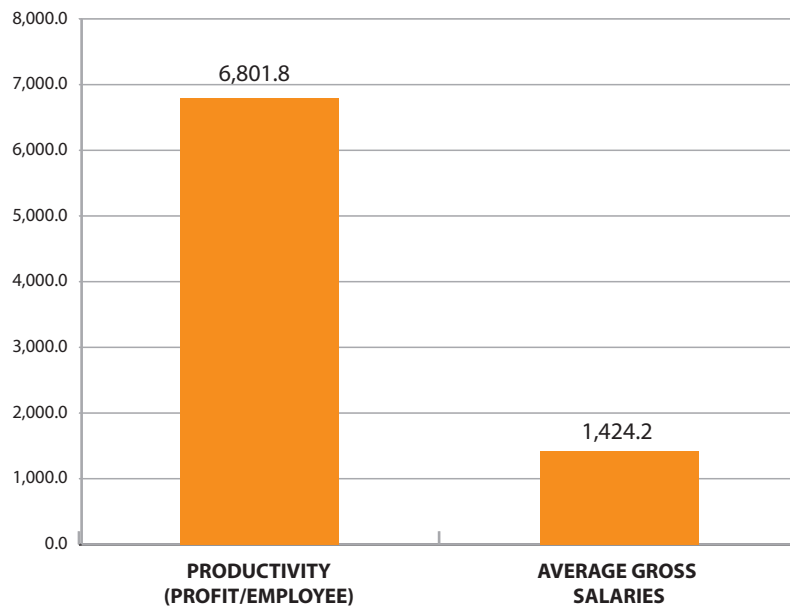
Chart 37. Profit rate, ROA and export ratio in income

Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

Metal industry has shown the best performances by the majority of aspects significant for development.

As mentioned earlier, this sector is profitable, its profit rate and return on assets are good, and the majority of production is being exported.

This sector also has the great capacity to employ new employees. The chart below shows how much profit one average employee creates for the company, and how much his earnings cost the company.

This ratio is around 1 : 4.8, i.e. the average employee in this sector earns his employer the amount almost equal to his five salaries. It means that it is very profitable to employ new employees and that there insignificant capacity for new recruitments.

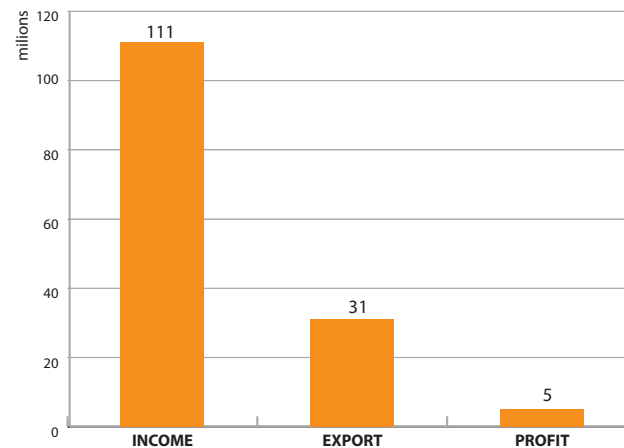*Chart 38. Productivity and earnings ratio in the metal industry sector (in км)*

Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

The electro industry

The electro industry used to be the leading economy branch, especially in Banjaluka. Banjaluka was one of the most important centers of this industry in former Yugoslavia. Unfortunately, this position is lost, it seems forever. Today's electro industry of this region is only a pale shadow of the former industry.

Today, the sector of electro industry employs 1,323 employees in 79 companies registered for such business activities. The total income realized in 2011 in all 34 municipalities was км 111 million. Out of that, км 31 million was exported, and the profit was км 5 million. It shows that the sector as a whole is profitable and export oriented.
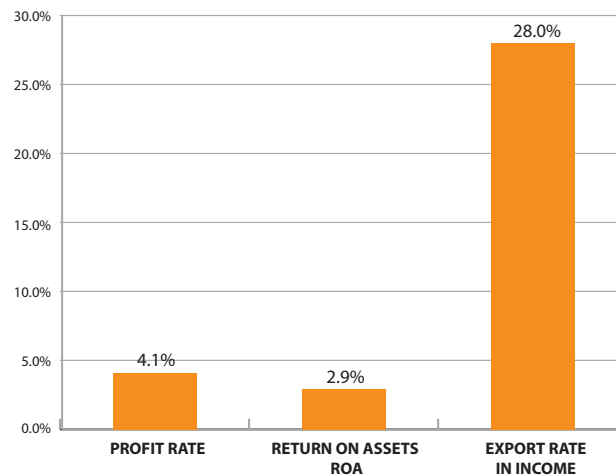
Chart 39. Income, export and profit of electro industry, 2011 (in км million)

Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

Characteristics of the electro industry are more obvious from the data on profit rate, return on assets (ROA) and export ratio in the total income, in the chart below.

*Chart 40. Profit rate, ROA and export ratio in electro industry income*

Electrical engineering industry, once one of the main sectors for development of this area, now realizes modest results and it does not represent anymore a sector with significant development potential.

Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

As mentioned before, this sector is profitable, its profit rate and return on assets are good, and a major part of the total production is being exported.

This sector, also, has a great capacity to employ new employees. The chart below shows how much profit one average employee creates for the company, and how much his earnings cost the company.

Chart 41. Productivity and earnings ratio in electro industry sector (in км)
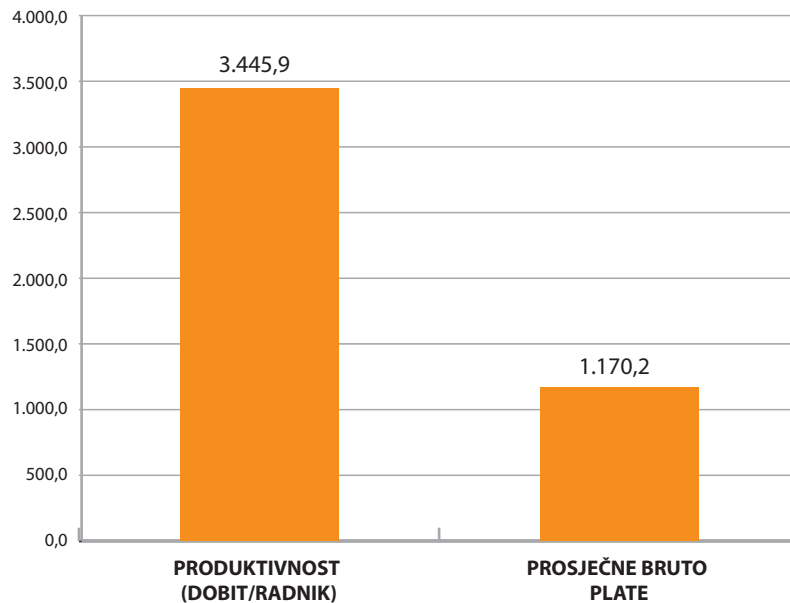
Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

This ratio is around 1 : 3, i.e. the average employee in this sector earns his employer the three times amount of his salary. It means that it is profitable to employ new employees and that there is capacity for new recruitments.
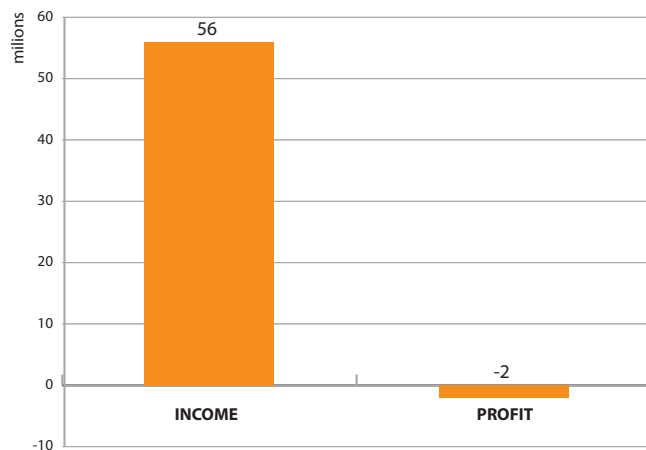
Catering

This field has a great potential for tourism development by leaning on the special natural resources and different options for active holiday tourism. Despite favorable opportunities, these potentials are still in large, or even in total, wasted. Touristic infrastructure is not sufficient and dissatisfying, does not meet the criteria of modern tourism, and additional programs to ensure the longer stay are modest. There is a lack of programs that would spatially unify developed and less attractive touristic elements in a complex way. Above all, the physical access to tourist attractions is a problem.

That is the cause of catering sector's significant problems

The catering sector employs 1,265 employees in 179 companies registered for such business activities. This sector is in 15th position by the number of employees.

The total income realized in this sector in all 34 municipalities in 2011 was only KM 56 million. This sector operates on loss, and there is no export in this sector, although the income from foreign tourists has the same economic significance as export.
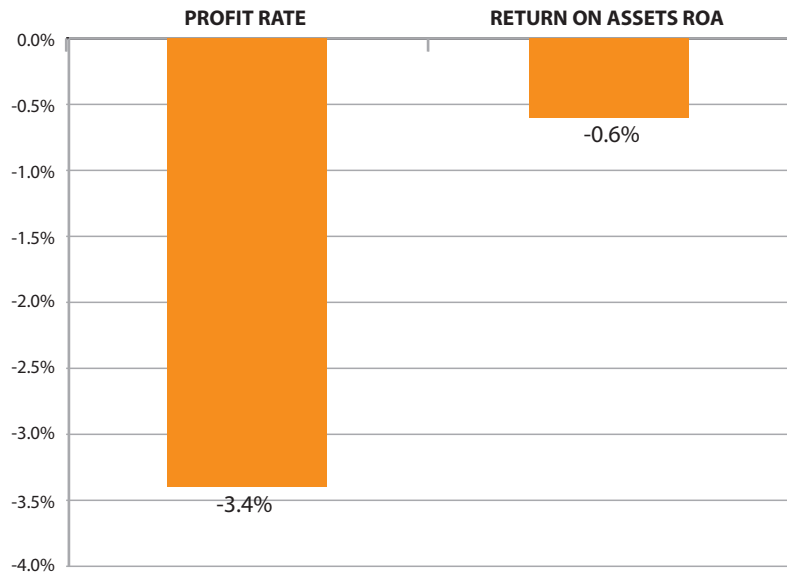
Chart 42. Income, export and profit of the catering sector, 2011 (in KM million)

Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

Characteristics of the catering sector are more obvious from the data on profit rate, return on assets (ROA) and export ratio in the total income, in the chart below.

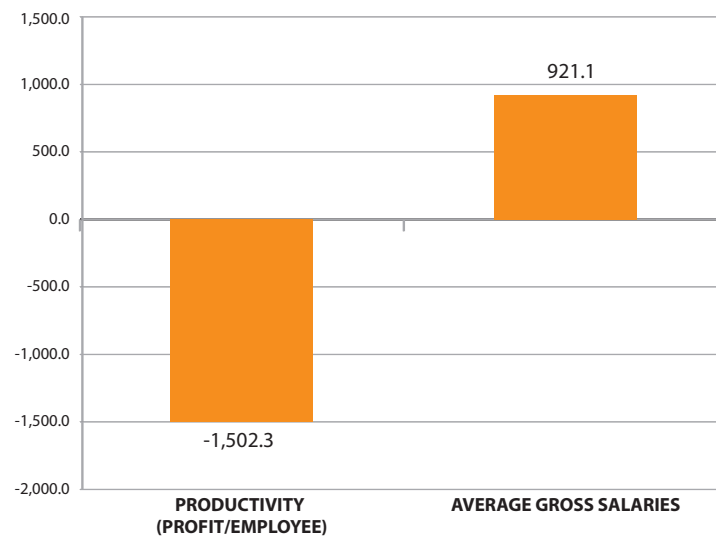*Chart 43. Profit rate and ROA of the catering sector*

Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

Catering has marked very poor results. Many jobs are jeopardized in this sector.

As mentioned before, this sector is not profitable, but only here can one see the real scope of the loss. Even if the money-losing companies are removed from the sample, the sector is still not profitable.

This sector has no capacity to employ new employees, that is even if that capacity exists somewhere, it is not big and cannot be counted on. The chart below shows how much profit one average employee creates for the company, and how much his earnings cost the company.

It can be seen that the average employee in this sector creates the loss for his employer. That means that it is not profitable at all to employ new employees, and that, in fact, there is a danger of down-sizing. Accordingly, the closure of some of the catering companies may be expected, or the transfer of the activity leaders to the sector of informal economy.

Chart 44. Productivity and earnings ratio in catering sector (in KM)

Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

Information/communication technologies

Information/communication technologies are on of the key sectors in modern global economy. The industry of information/communication technologies is rapidly spreading, becoming one of the motors of the economic growth.

Information/communication technologies are the sector still being created. Rather good availability of engineers with excellent knowledge and skills and competitive surroundings in terms of prices present good conditions for the sector's development.

The sector of information/communication technologies employ 1,156 employees in 127 companies registered for such activities. The total income realized in this sector in all 34 municipalities in 2011 was KM 135 million. Out of that, 15 million was exported, and the profit was KM 18 million. It shows that the sector as a whole is profitable and that it is partly export oriented.
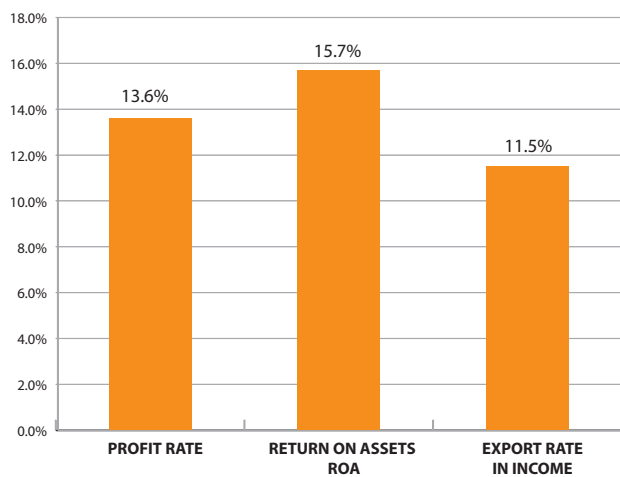
Chart 45. Income, export and profit of information/communication technologies sector, 2011. (in км million)
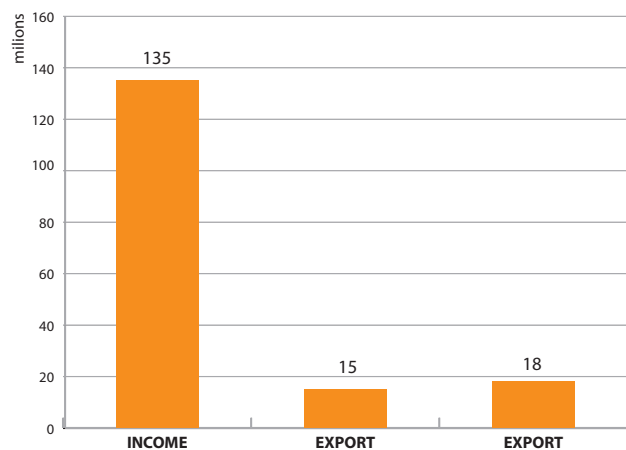
Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

Characteristics of the rubber and plastics sector are more obvious from the data on profit rate, return on assets (ROA) and export ratio in the total income, in the chart below.

Chart 46. Profit rate, ROA and export ratio in income
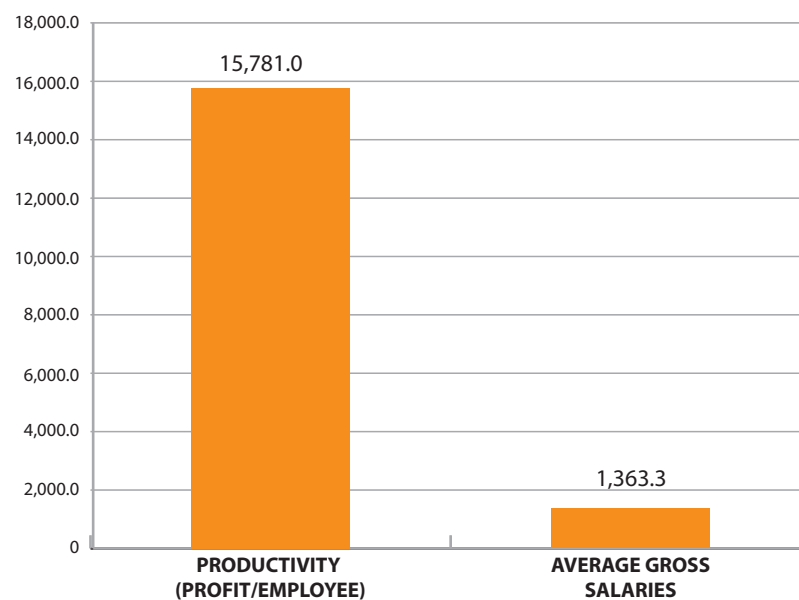

Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

The IT sector is extremely profitable, expanding and it has got great possibilities for further development

As mentioned earlier, this sector is profitable, its profit rate and return on assets are good, and a little over one tenth is being exported.

This sector has a great capacity of new employment. The chart below shows how much profit one average employee creates for the company, and how much his earnings cost the company.

Chart 46. Productivity and earnings ratio in the sector of information/communication technologies (in KM)

Source: AFIP FBiH and APIF RS, Institute for Statistics of FBiH, RS Institute of Statistics and municipalities

This ratio is around 1 : 11.6, i.e. the average employee in this sector earns his employer the amount equal to little less than his 12 salaries. It means that it is very profitable to employ new employees and that there is a great capacity for new recruitments. However, new employment requires huge investment in human resources, much larger than in other sectors.

5. Ranking and selection of the sector with the greatest growth potential

Selection criteria and methodology

In order to select the industry sector with the greatest growth potential for SMBs in the area of 34 municipalities, which will be included in CREDO Krajina Project, the following criteria were defined:

- The sector size according to employment and capacity for (new) employment,
- The sector size according to the income and potential for income growth,
- Sector's productivity level,
- Sector's return on assets,
- Sector's export.

Methodology of sector performance measuring is based on index numbers. Namely, for each of the indicators the sector average is measured and expressed as an index number 100. The performance of every sector is then expressed as deviation from the average, also expressed as an index number. In the case of the agriculture, fishery and forestry sector, it looks as follows:

- Employment index 113, meaning the employment in the sector is 1.13 times higher than the average,
- Income index 133.8, meaning the total income of the sector is 1.34 times higher than the average,
- Productivity index 70.5, meaning the sector's productivity is 70.5% of the average value,
- Return on assets index 16, meaning the return on assets is only 16% of the average value,
- Export index 53.7, meaning the total export of the sector is 53.7% of the average value.

After the "aerial" and "helicopter" view photos of the state of economy and thorough analysis of individual sectors, in the fifth part we ranked them and selected the sectors with the biggest growth potential.

In the end, the average composite competitiveness index of the sector is measured as the average value of the previous five indexes. In the above example of agriculture, forestry and fishery sector, the composite index of competitiveness is 77.4. Quantitative ranking of sectors is being done by comparison of their composite indexes of competitiveness.

In addition to quantitative ranking, the selection of the sector is influenced by the qualitative assessment done by expert. That assessment will be based on the estimated future sector performance in relation to employment growth, income growth (sale), investment increase, technological advancements, export growth, etc.

Evaluation of the sector position by the defined criteria

Data on the agriculture, forestry and fishery sector position in relation to the regional sector average are shown in the chart below.

Chart 47. Deviation from the regional average, sector of agriculture, forestry and fishery (average = 100)
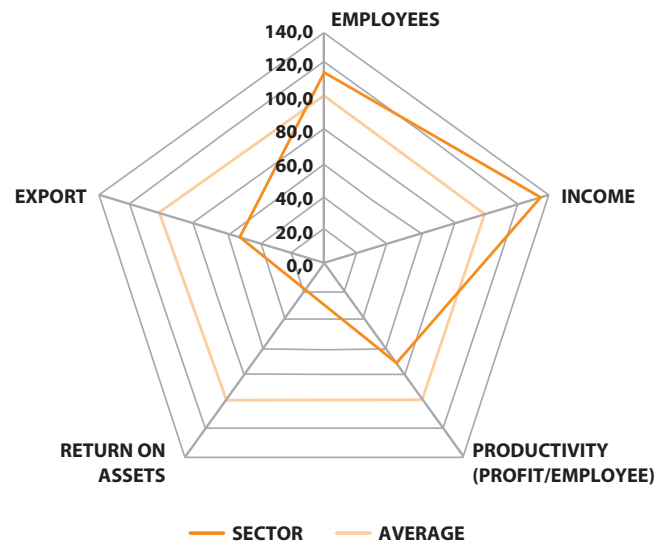
When compared to other sectors, it is seen that agriculture realizes performances below the average.

*Source: AFIP FBiH and APIF RS, author's calculations*

Agriculture, forestry and fishery sector's deviation from the average value defined as the index number 100, shown in the chart previous, are as follows:

- Employment index 113, meaning the employment in the sector is 1.13 times higher than the average,
- Income index 133.8, meaning the total income of the sector is 1.34 times higher than the average,
- Productivity index 70.5, meaning the sector's productivity is 70.5% of the average value,
- Return on assets index 16, meaning the return on assets is only 16% of the average value,
- Export index 53.7, meaning the total export of the sector is 53.7% of the average value.

The average composite index of competitiveness, being the average of the previous five indexes, is 77.4.

Data on the food and beverage sector's position in relation to regional sector average are shown in the chart 48.

Chart 48. Food and beverage sector's deviation from regional average(average = 100)
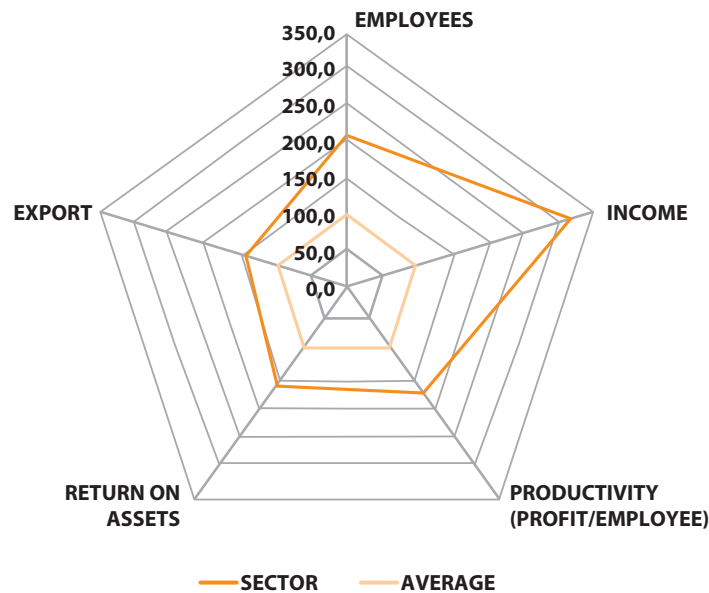
Performances of food industry are significantly above the average.

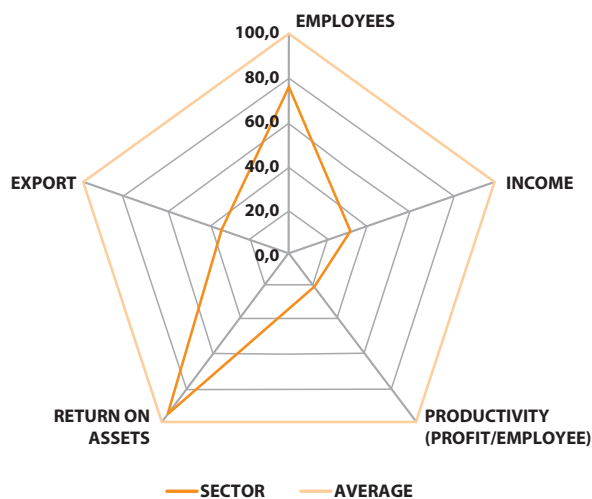*Source: AFIP FBiH and APIF RS, author's calculations*

Food and beverage sector's deviation from the average value defined as index number 100, shown in the previous chart, are as follows:

- Employment index 209.8, meaning the employment in the sector is 2.1 times higher than the average,
- Income index 317, meaning the total income of the sector is 3.17 times higher than the average,
- Productivity index 171.3, meaning the sector's productivity is 1.71 times higher than the average value,
- Return on assets index 155.4, meaning the return on assets is 1.55 times higher than the average value,
- Export index 144.3, meaning the total export of the sector is 1.44 times higher than the average value.

The average composite index of competitiveness, being the average of the previous five indexes, is 199.5.

Data on the textile sector's position in relation to regional sector average are shown in the chart 49.

Chart 49. Textile sector's deviation from the regional average, (average = 100)

Textile industry is far below the average.

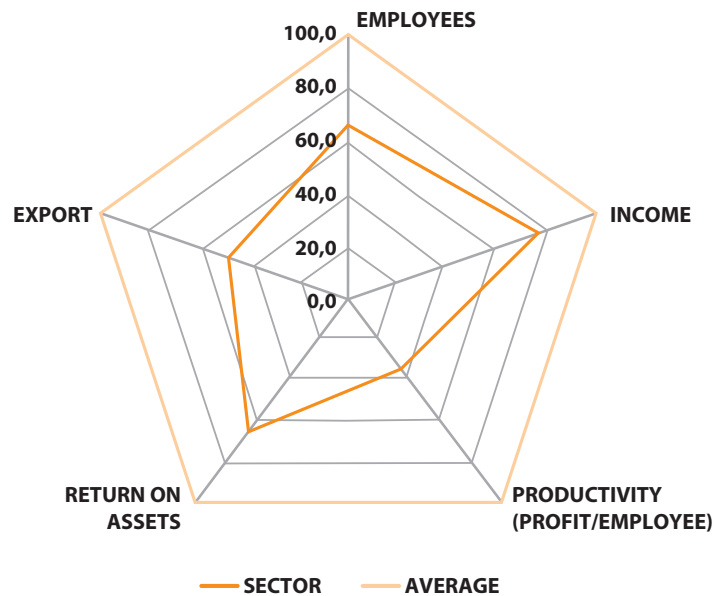*Source: AFIP FBiH and APIF RS, author's calculations*

Textile sector's deviation from the average value defined as index number 100, shown in the previous chart, are as follows:

- Employment index 76.5, meaning the employment in the sector is 76.5% of the average,
- Income index 30.5, meaning the total income of the sector is 30.5% of the average,
- Productivity index 20.7, meaning the sector's productivity is 20.7% of the average value,
- Return on assets index 94.5, meaning the return on assets is 94.5% of the average value,
- Export index 33.2, meaning the total export of the sector is 33.2% of the average value.

The average composite index of competitiveness, being the average of the previous five, 51.1.

Data on the paper production and publishing/printing business in relation to regional sector average are shown in the chart below.

Chart 50. Deviation from the regional average, paper production and publishing/printing business (average= 100)

Production of paper and publishing and printing activity is also significantly below the average.

*Source: AFIP FBiH and APIF RS, author's calculations*

Deviation of paper production and publishing/printing from the average value defined as index number 100, shown in the previous chart, are as follows:

- Employment index 65, meaning the employment in the sector is 65% of the average,
- Income index 77, meaning the total income of the sector is 77% of the average,
- Productivity index 35.7, meaning the sector's productivity is 35.7% of the average value,
- Return on assets index 65.4, meaning the return on assets is 65.4% of the average value,
- Export index 48.8, meaning the total export of the sector is 48.8% of the average value.

The average composite index of competitiveness, being the average of the previous five, is 58.4.

Data on the chemicals production sector in relation to regional sector average are shown in the chart 51.

Chart 51. Deviation from the regional average, chemicals production (average = 100)
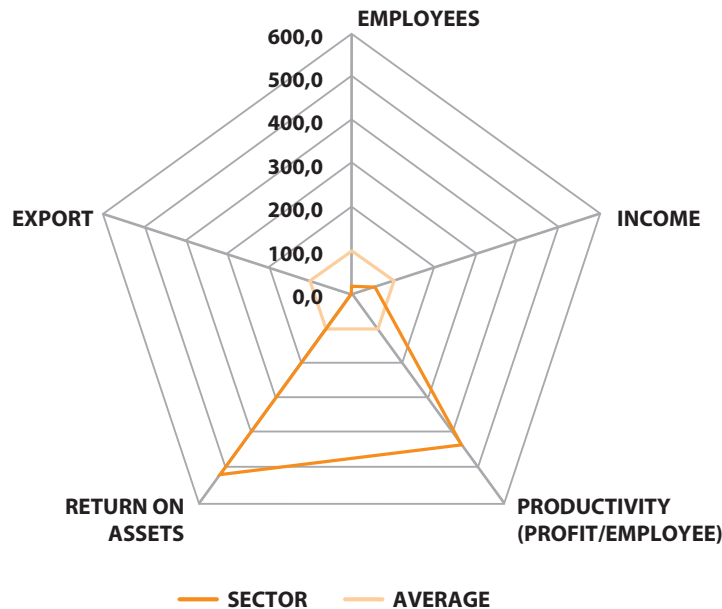
Production of chemicals is below the average in terms of employment, export and income, but it is significantly above the average by productivity and return on assets.

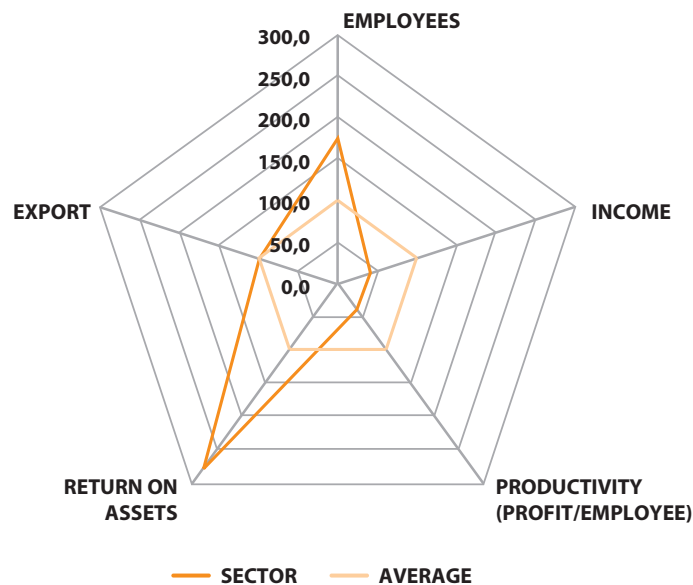*Source: AFIP FBiH and APIF RS, author's calculations*

Deviation of chemicals production from the average value defined as index number 100, shown in the previous chart, are as follows:

- Employment index 38.7, meaning the employment in the sector is 38.7% of the average,
- Income index 56.2, meaning the total income of the sector is 56.2% of the average,
- Productivity index 419.2, meaning the sector's productivity is 4.2 times higher than the average value,
- Return on assets index 504.9, meaning the return on assets is 5 times higher than the average value,
- Export index 3.2, meaning the total export of the sector is 3.2% of the average value.

The average composite index of competitiveness, being the average of the previous five, is 199.

Data on the leather and footwear sector's position in relation to regional sector average are shown in the chart 52.

Chart 52. Deviation from the regional average, leather and footwear sector (average = 100)

Sector of leather and footwear, in terms of most indicators, is above the average, except by income and productivity.

Source: AFIP FBiH and APIF RS, author's calculations

Leather and footwear sector's deviation from the average value defined as index number 100, shown in the previous chart, are as follows:

- Employment index 175.4, meaning the employment in the sector is 1.75 times higher than the average,
- Income index 39.7, meaning the total income of the sector is 39.7% of the average,
- Productivity index 37.6, meaning the sector's productivity is 37.6% of the average value,
- Return on assets index 275.3, meaning the return on assets is 2.75 times higher than the average value,
- Export index 98.2, meaning the total export of the sector is 98.2% of the average value.

The average composite index of competitiveness, being the average of the previous five, is 125.2.

Data on the wood processing sector's position in relation to regional sector average are shown in the chart 53.

Wood processing industry performances are significantly above the average.

Chart 53. Deviation from the regional average, wood processing sector, 421 companies (average = 100)

Source: AFIP FBiH and APIF RS, author's calculations

Wood processing sector's deviation from the average value defined as index number 100, shown in the previous chart, are as follows:
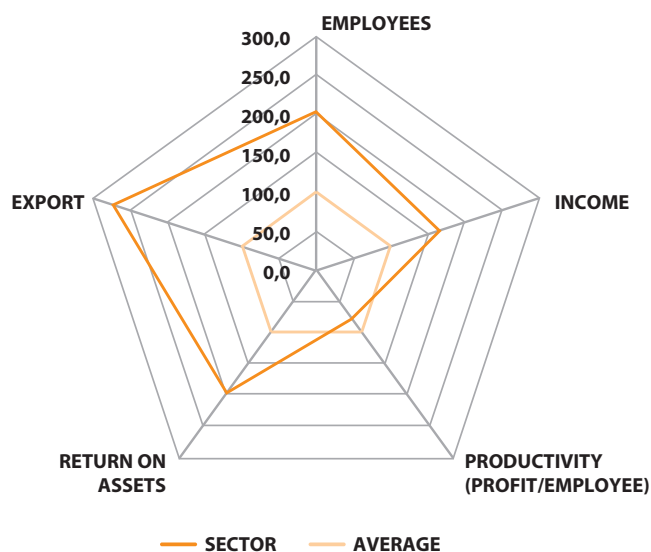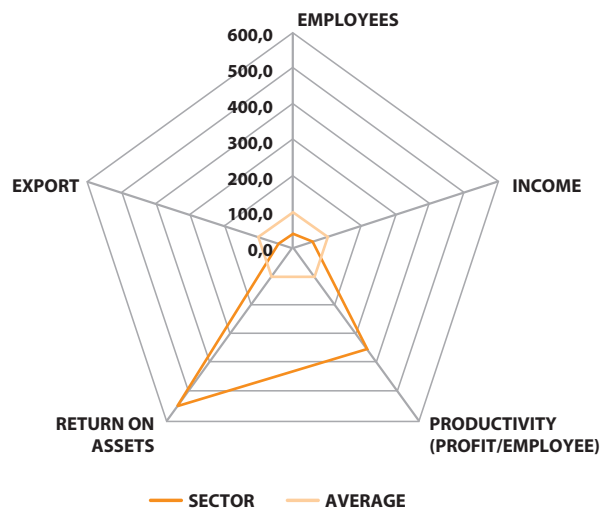
- Employment index 206.3, meaning the employment in the sector is 2.06 times higher than the average,
- Income index 167.8, meaning the total income of the sector is 1.68 times higher than the average,
- Productivity index 76.8, meaning the sector's productivity is 76.8% of the average value,
- Return on assets index 194.6, meaning the return on assets is 1.95 times higher than the average value,
- Export index 275.9, meaning the total export of the sector is 2.76 times higher than the average value.

The average composite index of competitiveness, being the average of the previous five, is 184.3.

Data on the rubber and plastics sector's position in relation to regional sector average are shown in the chart 54.

Chart 54. Deviation from the regional average, rubber and plastics sector (average = 100)

SECTOR   AVERAGE

Source: AFIP FBiH and APIF RS, author's calculations

Sector of rubber and plastic is below the average in terms of employment, export and income, but it is significantly above the average by productivity and return on assets.

Rubber and plastics sector's deviation from the average value defined as index number 100, shown in the previous chart, are as follows:

- Employment index 38.7, meaning the employment in the sector is 38.7% of the average,
- Income index 56.2, meaning the total income of the sector is 56.2% of the average,
- Productivity index 351.4, meaning the sector's productivity is 3.5 times higher than the average value,
- Return on assets index 554, meaning the return on assets is 5.85 times higher than the average value,
- Export index 42.4, meaning the total export of the sector is 42.4% of the average value.

The average composite index of competitiveness, being the average of the previous five, is 208.5.

Data on the metal industry sector's position in relation to regional sector average are shown in the chart 55.

Performances of metal industry are "champion" ones, far above the average by all the indicators.

Chart 55. Deviation from the regional average, metal industry (average = 100)

Source: AFIP FBiH and APIF RS, author's calculations

Metal industry deviation from the average value defined as index number 100, shown in the previous chart, are as follows:

- Employment index 215.7, meaning the employment in the sector is 2.16 times higher than the average,
- Income index 279.6, meaning the total income of the sector is 2.8 times higher than the average,
- Productivity index 181.3, meaning the sector's productivity is 1.81 times higher than the average value,
- Return on assets index 192.3, meaning the return on assets is 1.92 times higher than the average value,
- Export index 536.8, meaning the total export of the sector is 5.37 times higher than the average value.

The average composite index of competitiveness, being the average of the previous five, is 281.1.

Data on the electro industry position in relation to regional sector average are shown in the chart below.

Chart 56. Deviation from the regional average, electro industry (average = 100)

Electrical engineering industry, observed on the whole, realizes performances worse than the average.

Source: AFIP FBiH and APIF RS, author's calculations

Electro industry deviation from the average value defined as index number 100, shown in the previous chart, are as follows:
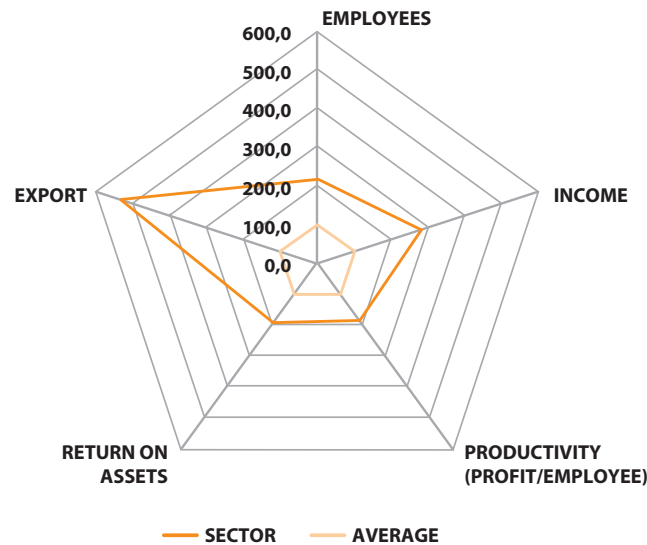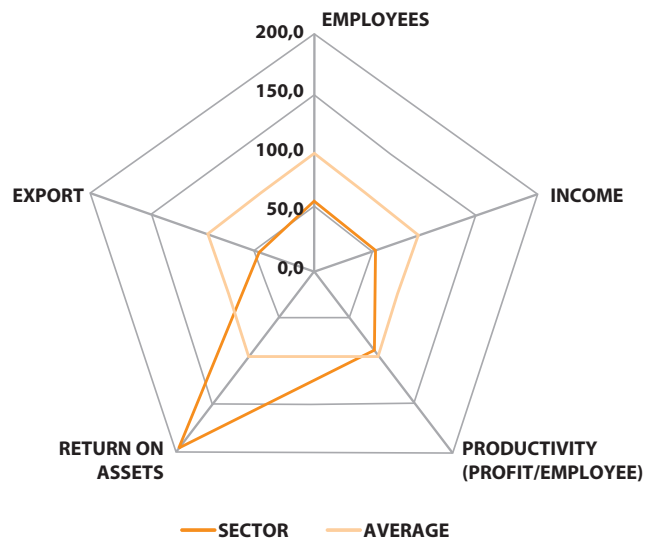
- Employment index 55.9, meaning the employment in the sector is 55.9% of the average,
- Income index 51.6, meaning the total income of the sector is 51.6% of the average,
- Productivity index 91.6, meaning the sector's productivity is 91.6% of the average value,
- Return on assets index 195.4, meaning the return on assets is almost two times higher than the average value,
- Export index 44.8, meaning the total export of the sector is 44.8% of the average value.

The average composite index of competitiveness, being the average of the previous five, is 87.9.

Data on the catering sector's position in relation to regional sector average are shown in the chart below.

Catering is, according to available data, in a very bad position.

Chart 57. Deviation from the regional average, catering sector (average = 100)

Source: AFIP FBiH and APIF RS, author's calculations

The catering sector's deviation from the average value defined as index number 100, shown in the previous chart, are as follows:
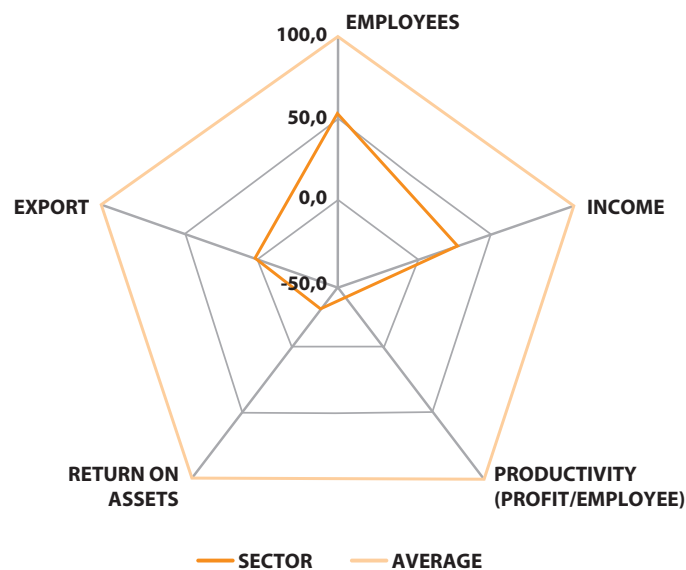
- Employment index 53.5, meaning the employment in the sector is 53.5% of the average,
- Income index 26.1, meaning the total income of the sector is 26.1% of the average,
- Productivity index is negative, meaning the sector does not create, but destroys value,
- Return on assets index is also negative, meaning the sector does not increase, but decrease its property.

The average composite index of competitiveness, being the average of the previous five, is 1.8.

Data on the information/communication sector's position in relation to regional sector average are shown in the chart 58.

Chart 58. Deviation from the regional average, sector of information/communication technologies (average = 100)

The IT sector is below the average about employment, export and income, but it is significantly above the average by productivity and return on assets.

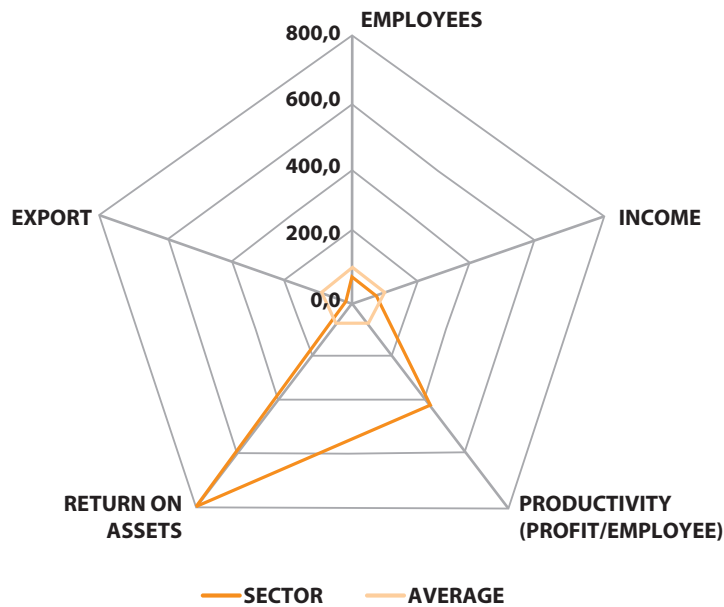*Source: AFIP FBiH and APIF RS, author's calculations*

The information/communications technologies sector's deviation from the average value defined as index number 100, shown in the chart above, are as follows:

- Employment index 48.9, meaning the employment in the sector is 48.9% of the average,
- Income index 62.7, meaning the total income of the sector is 62.7% of the average,
- Productivity index 420.7, meaning the sector's productivity is 4.2 times higher than the average value,
- Return on assets index 792.2, meaning the return on assets is 7.92 times higher than the average value,
- Export index 22.4, meaning the total export of the sector is 22.4% of the average value.

The average composite index of competitiveness, being the average of the previous five, is 269.4.

Sector ranking and selection according to the composite index of competitiveness and qualitative analysis

Having in mind the results of the sector's competitiveness research presented in the previous part of the analysis, we provide the ranking list of sectors, by the value of the average composite index of competitiveness, which was calculated as the average of the five indexes: employment index, income index, productivity index, return on assets index and export index. The highest ranking have the sectors with the highest index (Chart 59).

According to performed analyses and sector ranking by competitiveness, the leading sector is the sector of metal industry, followed by the information/communication technologies, then rubber and plastics sector, food industry and wood processing industry. Below the average are the following sectors: electro industry, agriculture, forestry and fishery, paper production and publishing/printing, textile and catering.

However, this ranking list and the composite index of competitiveness are not the only instrument in the sector selection. Such ranking gives the rough picture of competitiveness, but it is always good to also use the qualitative analysis that brings such data in close contact with reality.

Chart 59. Sector composite index of competitiveness (average = 100)

When ranking them by the present quantitative analysis, the sectors above the average are important.
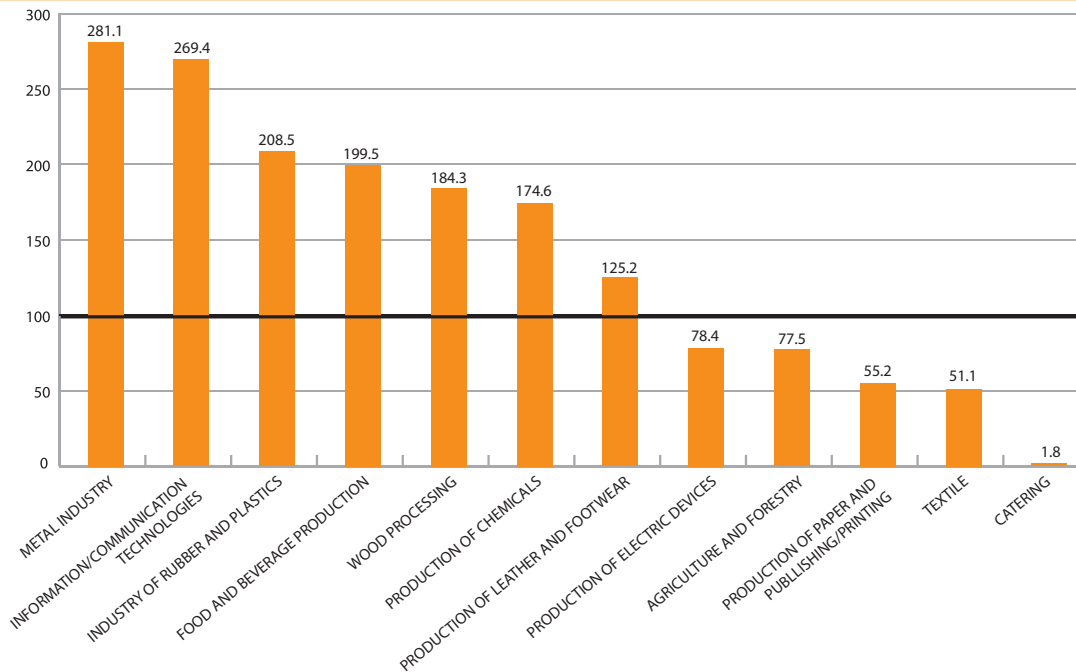
So, beside this quantitative analysis, which showed which sectors are on the short list and which have been rejected, the qualitative analysis of sector's position (Annex I of this document) uses expert information that usually cannot be quantified, but it is important for the future sector performance. The analysis was done by gathering of opinions and assessments of relevant experts on the future sector performances related to employment growth, income growth (sale), investment growth, technological advancement, export growth and other areas.

Based on such qualitative analysis, it is possible to reach the following important conclusions:

- Metal industry is definitely the most competitive sector according to both quantitative and qualitative sector analysis.
- Sector of information/communication technologies and rubber and plastics sector have the highest degree of profitability, but according to other criteria (employment, income, export),

In addition to the quantitative analysis, the qualitative analysis was performed by collecting opinions and estimates from relevant experts about the future performances of the sector about the issues of employment growth, income (sales) growth, investment growth, technological advancement, export growth and other areas.

they lag. According to the qualitative analysis, these sectors are ideal support to other sectors in production improvement.

- The food industry is one of the more competitive sectors according to both qualitative and quantitative sector analyses.
- The wood processing industry is also one of the more competitive sectors according to both qualitative and quantitative analyses of sectors.
- The leather and footwear sector, although ranked little lower than other sector according to quantitative analysis, has a great potential according to qualitative analysis. A great deal of foreign capital has been invested in this sector in the last few years, because this production is moving from the Far East to areas closer to EU, and there the region covered by the CREDO Krajina Project has competitive advantage.

As the main sectors to be included in the project, according to quantitative and qualitative analysis, the following were selected: metal sector, food industry, wood processing industry, and leather and footwear industry, and, as support to these sectors in improvement of production and productivity, the following were selected: IT sector and rubber and plastic sector.

Based on the comparative quantitative and qualitative analysis of the industry sectors, presented in this chapter, *Eda* Banjaluka reached the following conclusions related to sectors that shall be included into the CREDO Krajina Project:

1. The main sectors that shall be included in the Project are:
    - The metal industry sector,
    - The food industry,
    - The wood processing industry,
    - The leather and footwear industry.
2. The following sectors shall be included in the Project as support to other sectors with the aim of increased production and productivity:
    - The information/communication technologies sector,
    - The sector of rubber and plastics.

Geographic distribution of selected sectors

Geographic distribution of selected sectors is important for further implementation of the CREDO Krajina Project, because economic activities exist in the given areas. In this way, the clear view of the total territorial distribution of economic activities is obtained. Selected sectors are shown on the following maps. Based on that, it is possible to see how the sectors are distributed and where the industrial centers are located.

GEOGRAPHICAL DISTRIBUTION OF COMPANIES FROM THE SECTOR OF METAL INDUSTRY
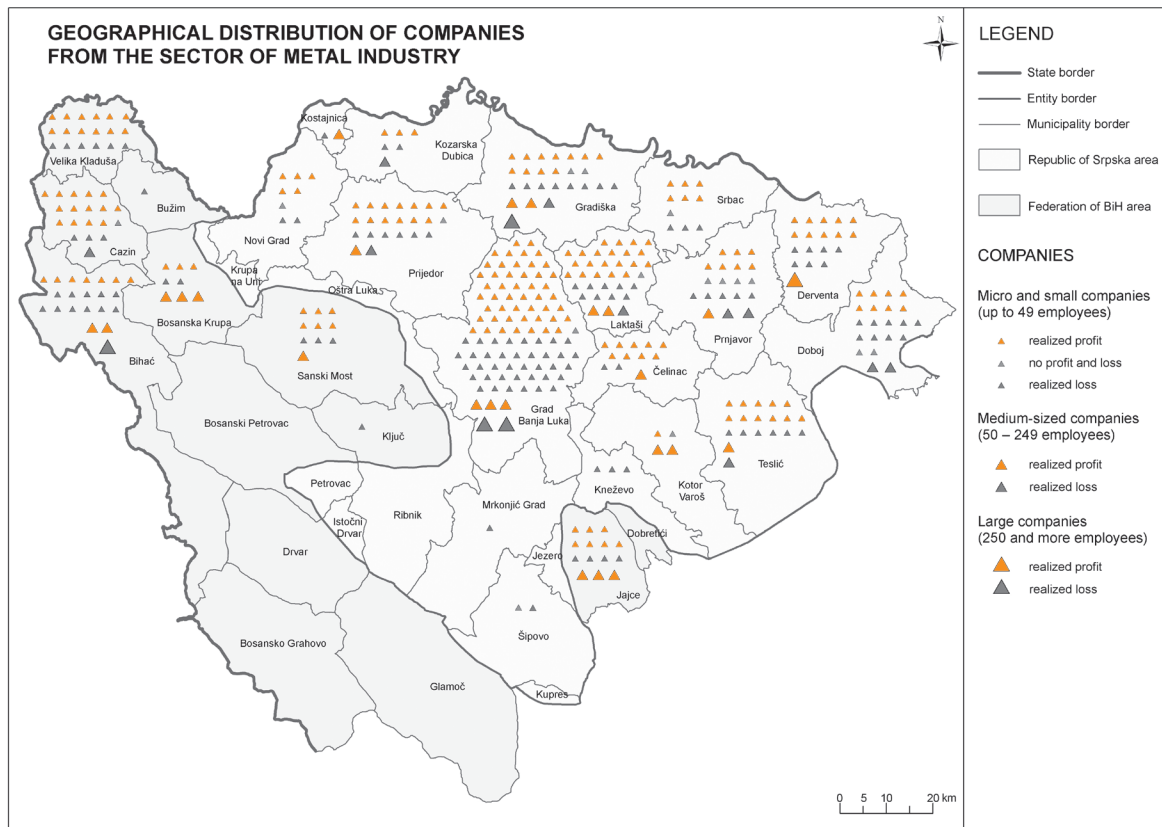
Concentration of the metal industry sector is, above all, around Banja Luka and Laktasi, as the main pole of development, as well as in the municipalities of Bihac, Cazin and Velika Kladusa, as a much smaller pole.

The map shows that the metal industry is present in a large number of selected municipalities. The first thing that stands out is the concentrating of these companies around Banjaluka and Laktasi (Celinac, Gradiska, Prijedor...). It can be said that the axis of Banjaluka–Laktasi presents for the metal industry what is in theory called development pole. It should be added that, other than a number of profitable companies, there are also ones operating on loss, especially in Banjaluka area.

The second, much smaller development pole is on the line Bihac–Cazin–Velika Kladusa.

In municipalities of so-called Visoka Krajina there are no companies from this sector.

When it comes to food processing industry, the main axis of development is the area Banja Luka–Laktasi–Gradiska. Also, there is concentration in the municipalities of Bihac, Cazin and Velika Kladusa, in a much smaller scope.
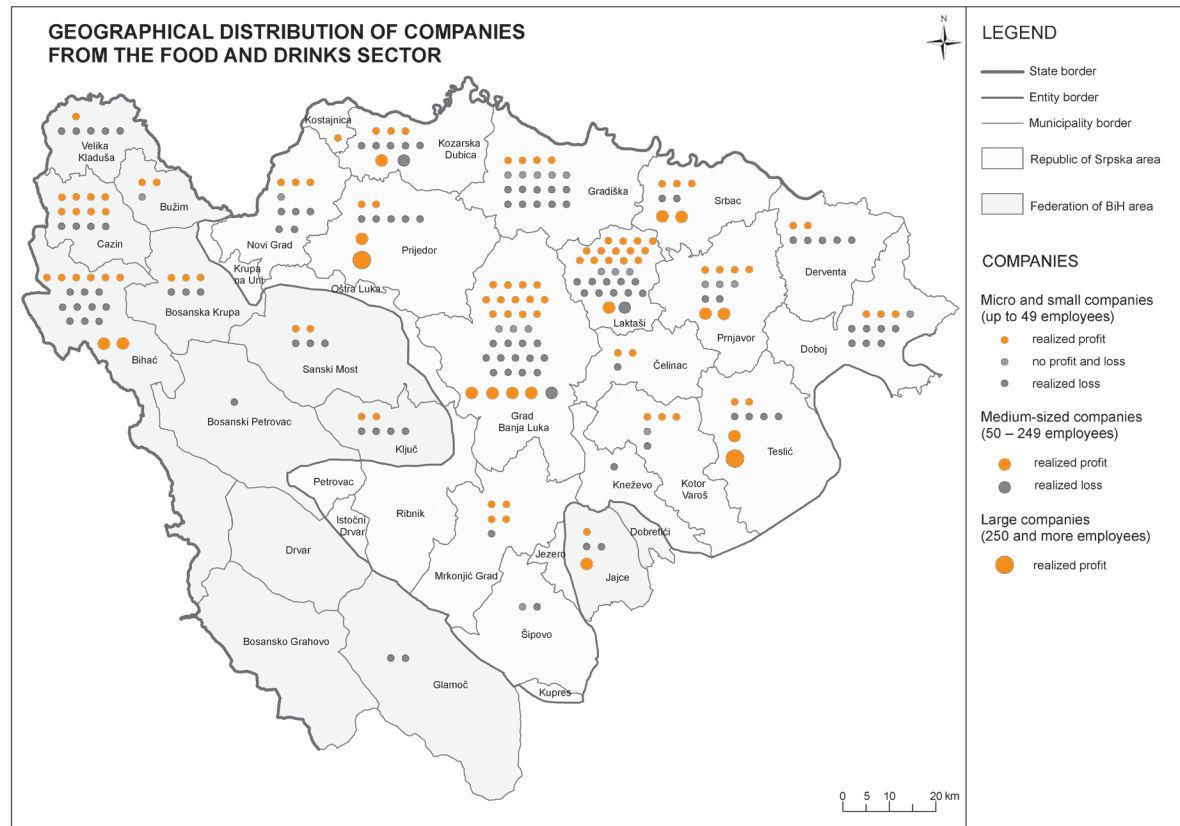
The food industry is also present in majority of selected municipalities. Here, the companies are grouped in the areas of Banjaluka, Laktasi and Gradiska. It can be said that the Banjaluka–Laktasi–Gradiska axix presents the development pole for the food industry of this region. It should be mentioned that, besides the many profitable companies here, there are also those operating at loss, especially in the area of Gradiska.

The other, smaller development pole is on the line Bihac–Cazin–Velika Kladusa.

In municipalities of so-called Visoka Krajina there are no companies from this sector.
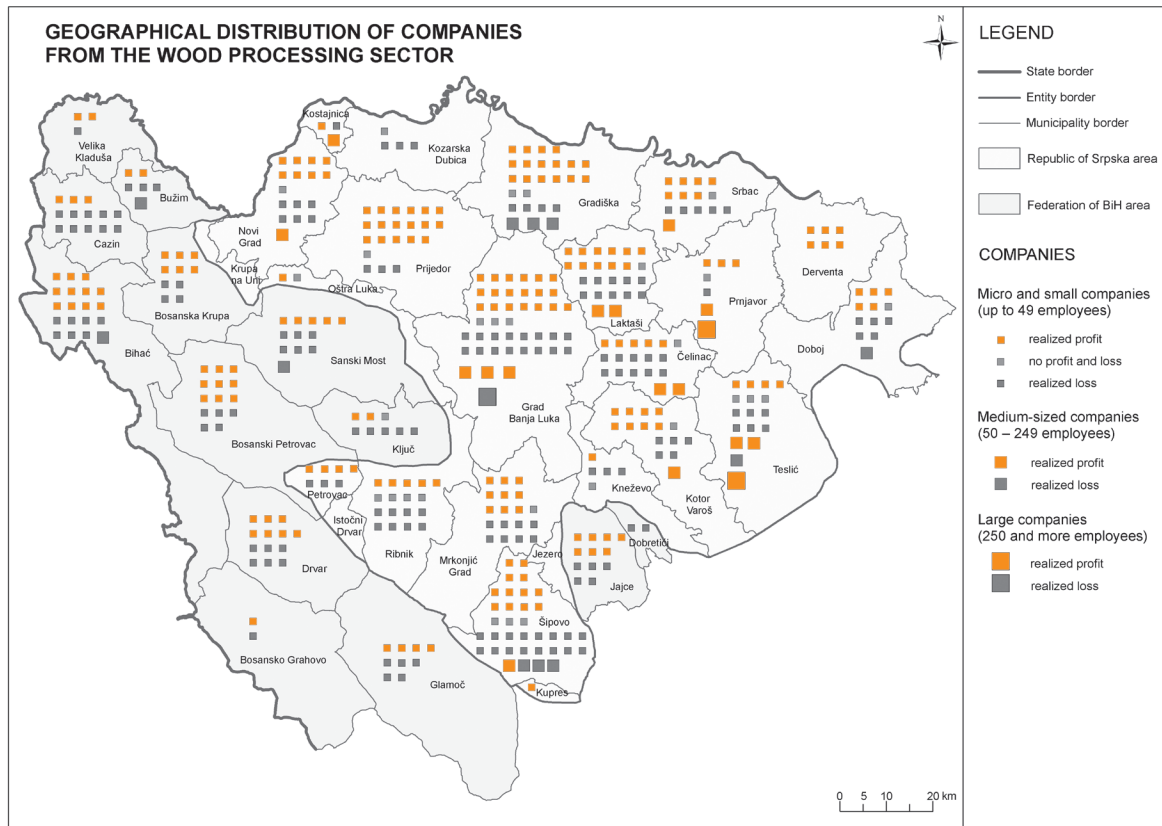
GEOGRAPHICAL DISTRIBUTION OF COMPANIES FROM THE WOOD PROCESSING SECTOR

LEGEND

State border
Entity border
Municipality border

Republic of Srpska area

Federation of BiH area

COMPANIES

Micro and small companies (up to 49 employees)
- realized profit
- no profit and loss
- realized loss

Medium-sized companies (50 – 249 employees)
- realized profit
- realized loss

Large companies (250 and more employees)
- realized profit
- realized loss

0   5   10   20 km

Wood processing is the only sector present in all of the selected municipalities.

Wood processing is the only sector present in all of the selected municipalities, and that is an important fact speaking for this sector. The majority of the primary processing is located in the areas rich in forests, like Sipovo, Mrkonjic Grad, Ribnik, etc. However, detailed analysis of the data shows that the production of furniture and other final wood products is located mostly in four municipalities: Banjaluka, Laktasi, Prijedor and Gradiska.

That means that in the areas rich in forests, there is the potential for production with higher added value which is, for now, concentrated in the mentioned four towns.

This type of production exists in larger extent and with good business results only in regions of Derventa and Prnjavor.
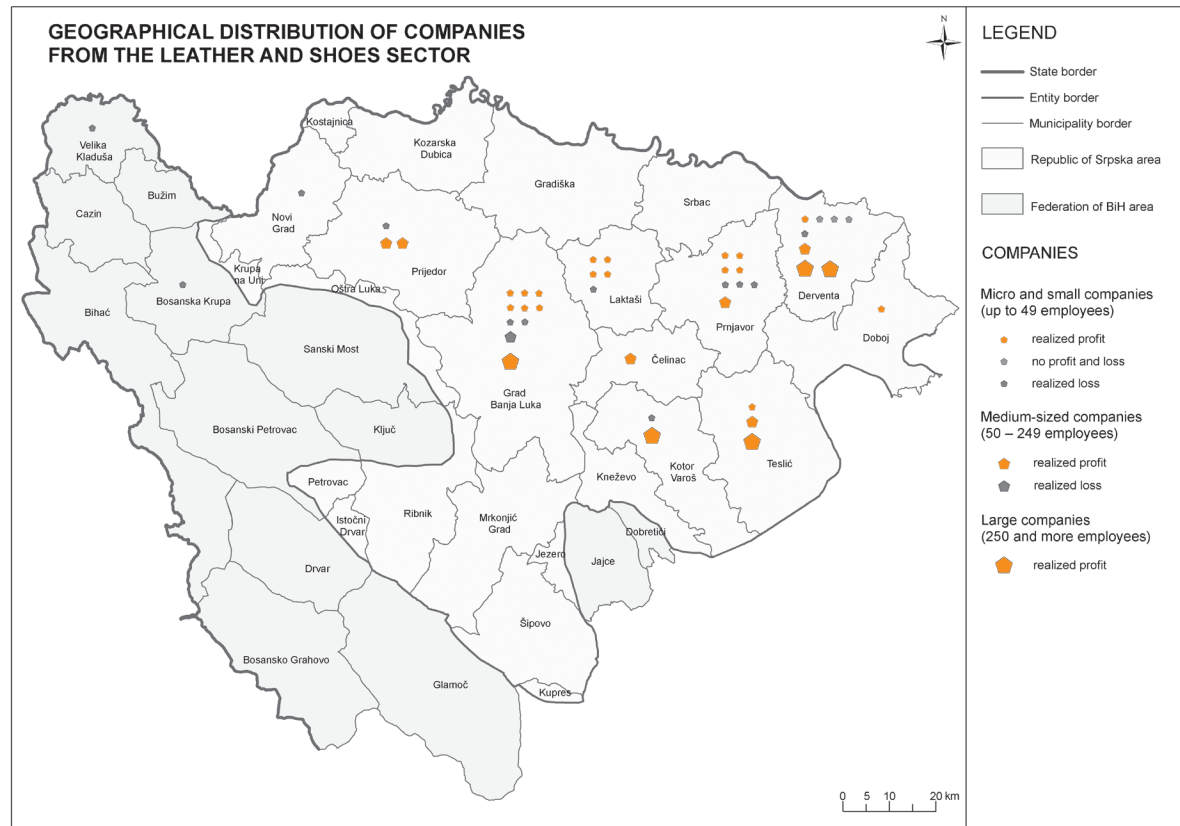
The leather and footware sector is relatively small sector according to the number of companies, although it is big according to the number of employees.

This area is specific in BiH. Except for the municipality of Visoko, this type of production exists in larger extent and with good business results only in regions of Derventa and Prnjavor.
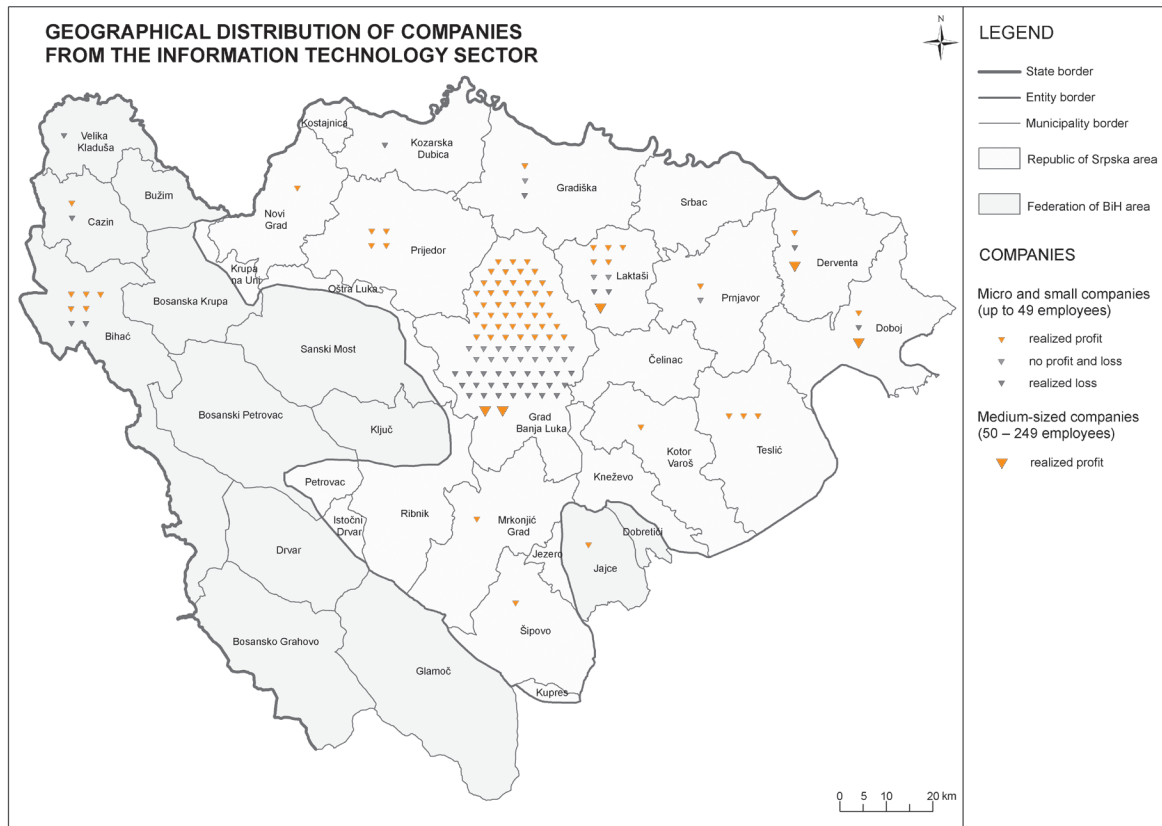
The sector of information / communication technologies is, as can be seen, mainly located in Banjaluka. This is an useful knowledge, because this sector will provide support to other selected sectors in productivity increase, so Banjaluka will be the center of support.

GEOGRAPHICAL DISTRIBUTION OF COMPANIES FROM THE INFORMATION TECHNOLOGY SECTOR

LEGEND

State border
Entity border
Municipality border

Republic of Srpska area

Federation of BiH area

COMPANIES

Micro and small companies (up to 49 employees)
▼ realized profit
▽ no profit and loss
▽ realized loss

Medium-sized companies (50 – 249 employees)
▼ realized profit

0 5 10   20 km

The sector of information / communication technologies is, as can be seen, mainly located in Banjaluka.

The sector of rubber and plastics is also the sector that will provide the support to other sectors in production increase and getting of better position in the value chain.

The interesting fact is that the geographical distribution of these companies corresponds to the distribution of companies from sectors of metal and food industries. These are the very sectors that this relatively small sector will play its biggest role in.

Geographical distribution of companies in the field of rubber and plastic corresponds to the distribution in the metal industry and food industry sectors.

GEOGRAPHICAL DISTRIBUTION OF COMPANIES FROM THE RUBBER AND PLASTIC SECTOR

LEGEND

State border
Entity border
Municipality border
Republic of Srpska area
Federation of BiH area

COMPANIES

Micro and small companies (up to 49 employees)
- realized profit
- no profit and loss
- realized loss

Medium-sized companies (50 – 249 employees)
- realized profit
- realized loss

0   5   10   20 km

Conclusions and recommendations

What has been shown in the review of the economy of regions covered by the selected 34 municipalities is that the economy is in relatively good condition. The average profit rate is 4.5%, the amount of profit per employee is around KM 6,000, the average gross salary is around KM 1,200 or the net salary around KM 700, etc. However, where does all those economic problems, that we all witness, come from? Where does the poverty, unemployment, low standard of living, the young and the educated leaving the country and other bad trends come from?

The picture becomes clearer if we take a look at the number of companies per 1,000 inhabitants. In the area covered by the CREDO Krajina Project there is around 8.3 companies per 1,000 inhabitants. If we compare this average not with the developed world, but with the nearby Varazdin County that has the average of 19 companies per 1,000 inhabitants, we can see how much we are left behind. That means that this area should have at least twice as many companies to even come close to the development level of the County. It is not necessary to emphasize what would additional 80,000 jobs mean for the living standard of the inhabitants.

So, it is clear that the key problem is not the bad economy, but too small one, and it cannot generate the sufficient number of jobs. We have seen that in 2011, the formal unemployment was around 42%, and the real estimate was about 28%. The especially concerning is the fact that this unemployment has the long-term, structural and transitional character (it lasts for a long time, and it is the consequence of unfavorable trends and transition of economy). Such unemployment typically leads to deterioration of working and professional skills, difficult employment, financial problems and retreat from the workforce. Unemployed persons decrease not only their income, but also the social relation networks, and such "work disappearing" leads to social exclusion of certain groups of citizens in time. That is why one of the most important elements in this analysis was to assess the status of economy and define

economic activities in which the economic growth and new jobs can be achieved. So, the selection was not only based on competitiveness, but also on the potential of the sector to create new jobs.

The overall assessment is that the economy of this region functions successfully in spite of being insufficiently large, compared to the number of inhabitants. Financial indicators for 2011, at the level of 34 selected municipalities, show globally positive performance.

Though, there are some significant differences there. Some of the sectors are very successful, and some are not. In assessment of economic activities with the best potential of economic growth and creation of new jobs, the best are the metal, food and wood processing industries. At the same time, these are the largest processing sectors.

The metal industry is the leading branch of economy in the project region. This sector has huge potential, strong workforce and resource basis, and a long tradition, which enables sustainable development of different activities.

The food industry is regarded as a developed branch of industry in the region covered by the Project, and the financial results of majority of companies have been positive for years. The wood processing industry has a long tradition in production of quality wood raw material and furniture. Relatively cheap and skilled workforce ensures competitive advantage, especially in furniture production.

Besides those three sectors, the CREDO Krajina Project will also cover the sector of leather and footwear as the sector which value chain will be worked on. This sector has somewhat lower but still good position according to the analysis of competitiveness, and has a great potential for creation of new jobs, according to the qualitative analysis. There has been a lot of foreign capital invested in this sector in the last several years, because this type of production is being moved from the Far East to the areas closer to EU, and the region covered by the CREDO Krajina Project has competitive advantage there.

These four sectors were selected as the main sectors for sector support. However, there are still two sectors with outstanding performances. The sector of information/communication technologies and of rubber and plastics have the highest level of profitability and productivity, but leg by other criteria (employment, income, export). Being the relatively small sectors, they are ideal as a support to other sectors in improvement of production and productivity, and as such they were selected to be included into the CREDO Krajina Project.

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ANNEX I

Qualitative analysis within the Baseline Analysis of Economic Sectors – CREDO Krajina Project

The aim of this qualitative study is to investigate in detail the individual experts' perception of the future developmental trends in certain sectors. The qualitative approach includes the detailed and systematic approach to certain number of experts with the aim of generating conclusions that cannot be obtained by quantitative analysis. This type of research is based on the small number of participants who have the knowledge relevant for the research. This research applied interpretative approach to qualitative analysis. The result is the series of conclusions, shaped in accordance with the requirements of the Baseline study.

AIM AND RESEARCH METHODOLOGY

The aim of the research was to get insight into experts' perception of the future developmental trends in some sectors. This research was performed as an addition to the quantitative research. The data were collected by the field semi structured interview that comprised five thematic topics.

Research participants were well-known experts with great experience in working with industrial sectors. Five of them accepted to participate in interviews. Although it is a small number, their significant knowledge and experience gives the deep insight into developmental specificities of certain industrial sectors.

The procedure of data preparation for processing included copying the interviews in paraphrased form, minimal language editing and dividing the text into thematic units on which the interview was based:

- Growth or decline of employment in sectors in the following medium-term period,
- Growth or decline of income/business in sectors in the following medium-term period ,
- Growth or decline of investment in sectors in the following medium-term period,
- Changes related to technology and innovations in sectors in the following medium-term period,
- Growth or decline of export in sectors in the following medium-term period.

The gathered data were processed by the qualitative analysis that comprised four steps:

1. Paraphrasing of all participants' answers,
2. Extracting the most important answers related to developmental trends in sectors,
3. Consolidation of the most important answers on sectors' developmental trends,
4. Creating the most important conclusions on developmental trends in sectors.

ANALYSIS RESULTS

Based on such qualitative analysis, we can bring the following important conclusions:

- The metal industry is the most competitive sector by the qualitative sector analysis.
- The wood processing industry is one of the most competitive sectors by the qualitative sector analysis.
- The food industry is also one of the more competitive sectors by the qualitative sector analysis.
- The leather and footwear production sector has great potential according to the qualitative assessment. A lot of foreign capital has been invested into this sector during the last several years, because the production is being moved from the Far East to areas closer to EU, and there the region covered by the CREDO Krajina Project has a competitive advantage.
- Sectors of information/communication technologies and rubber and plastics are ideal as a support to other sectors in improvement of production and productivity.

The metal industry sector is marked as the most competitive one, but its growth "depends on the European market trends" and "it is closely related to the knowledge companies possess" in order to be competitive. The estimates are that this sector will continue to grow in the medium-term period, in the sense of employment, income, investment and export, and also advance in technology.

The wood processing industry is also marked as the sector with considerable potential, especially because we have the raw material and significant capacities. However, there are some obstacles in this sector, especially in the access to market and knowledge related to market ("some companies even do not know who the final buyer of their products is, because the majority of export is done through third parties, who take the majority of income").

The food industry is the only one that survived without major consequences in the time of crisis, so it is on the short list of the most competitive sectors.

Footwear should face significant growth in the following period, and that is based on the projects of big European producers who retreat from China and move the production close to the EU, where the workforce is still cheap. So far Romania had profited the most from this trend, but our region is also competitive for this sector.

Sectors of information/communication technologies and of rubber and plastics are also marked as excellent for the support to other sectors in improving the production and productivity.

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