



Current state and perspectives for Bulgarian Forest sector in the context of the contemporary challenges

Nikolay Neykov

University of Forestry – Sofia, Bulgaria

Faculty of Business Management

Presentation content



- 1. General information about the Bulgarian forestry and comparisons
- SWOT analysis of the forestry
- 2. General information about the Bulgarian forest industries
- 4. SWOT analysis of forest industry.

Introduction



- ▶ The forests of Bulgaria cover the territory in about 3,870 million ha. The forest area represents about 30% of the country's territory.
- ▶ It predominantly includes forests with economic purposes. They account for over 68% of the total forest area and 64% of the tree stock.
- ▶ Forestry activities like plantation and logging are mostly situated in some of the poorer regions of the country.
- ▶ They give jobs to more than twelve thousand people.
- ▶ Forest-based industries in the country provide incomes to more than forty thousand people, most of them located in poor and vulnerable regions.

Introduction



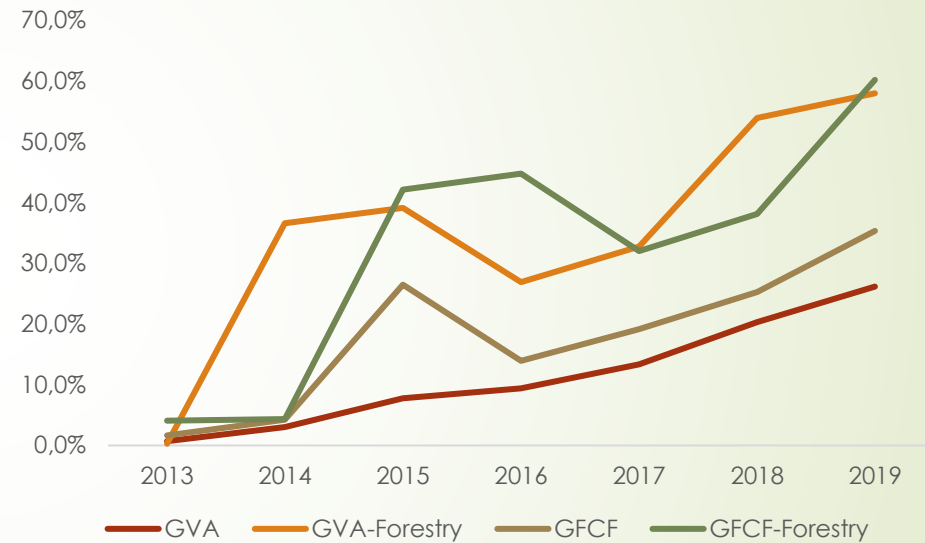
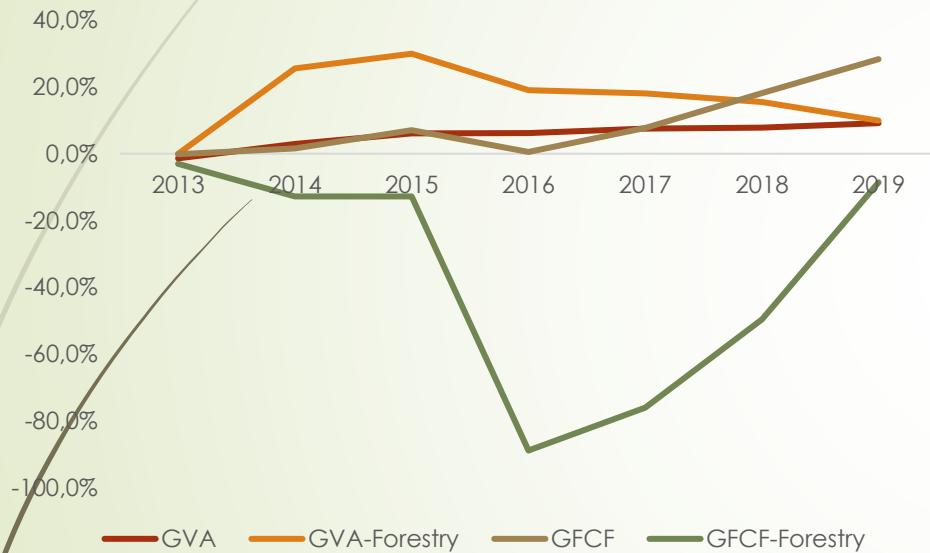
- ▶ The specified features determine the constant relevance of analyses in the forest sector.
- ▶ The purpose of this study is to establish leading economic indicators for the forestry sector in Bulgaria by making a comparison with other countries and the EU. The purpose is achieved through following tasks:
- ▶ Revealing the place in the national economy and the main economic features of Bulgarian forestry and forest industry.
- ▶ Highlighting the main comparative advantages and weaknesses in compare of provided benchmark.

Materials and Methods



- Statistical data are from the Eurostat's:
- Structural Business Statistic
- Statistic for Forestry
- National Accounts
- Method are:
- Linear regression.
- Economic indicators – productivity, profitability etc.
- SWOT analysis

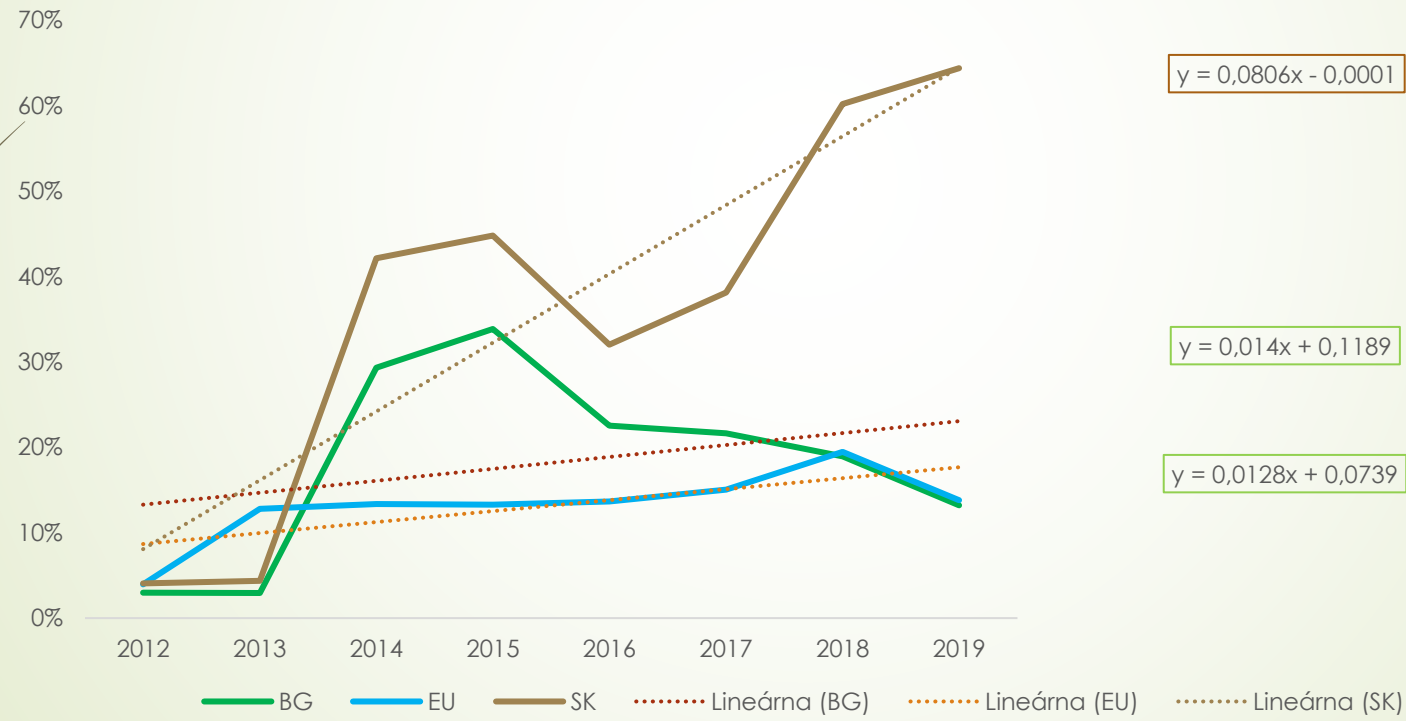
GVA and GFCF, BG & SK



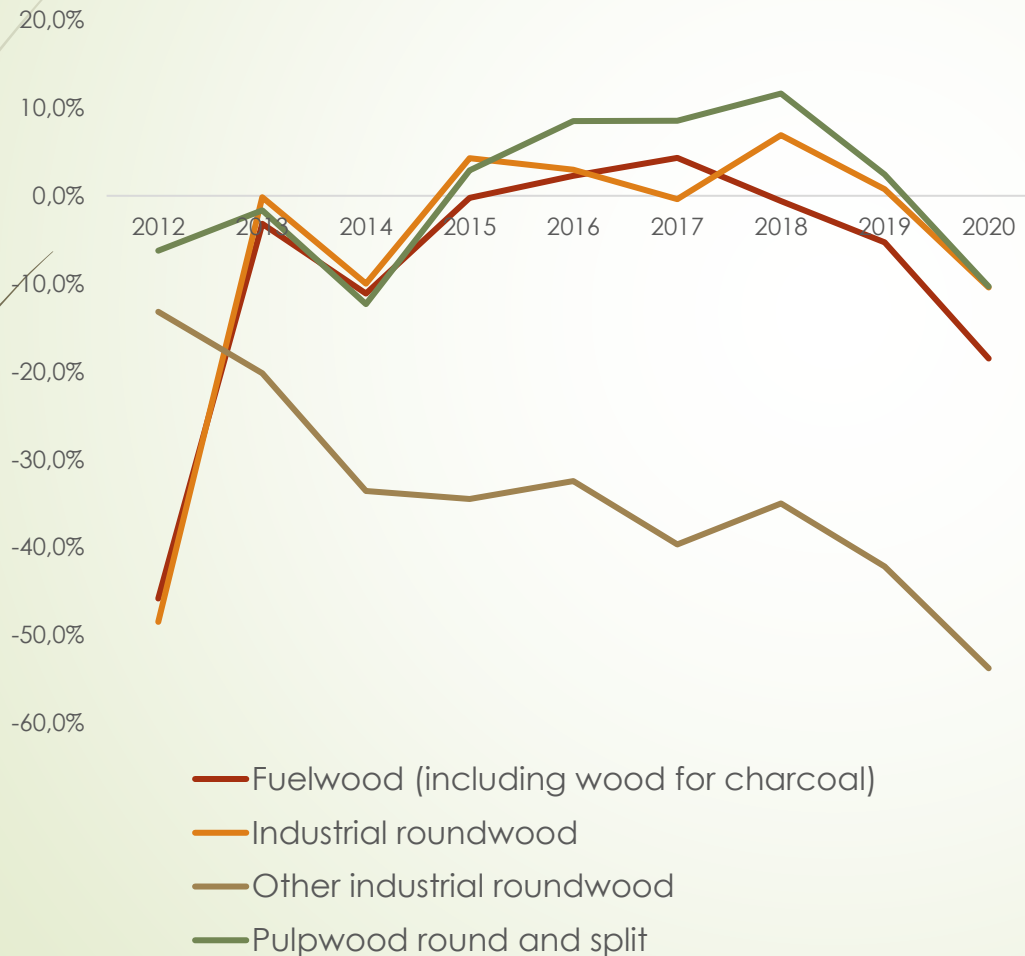
GVA of Forestry is 0.54% (BG=0.52%) of the country's GVA

Gross Fixed Capital Formation is 0.32% (BG=0.15%) of the country's GFCF

GVA Forestry index 2011 base



Harvesting volumes, BG, Index, 2011 base



Index, 2012 base

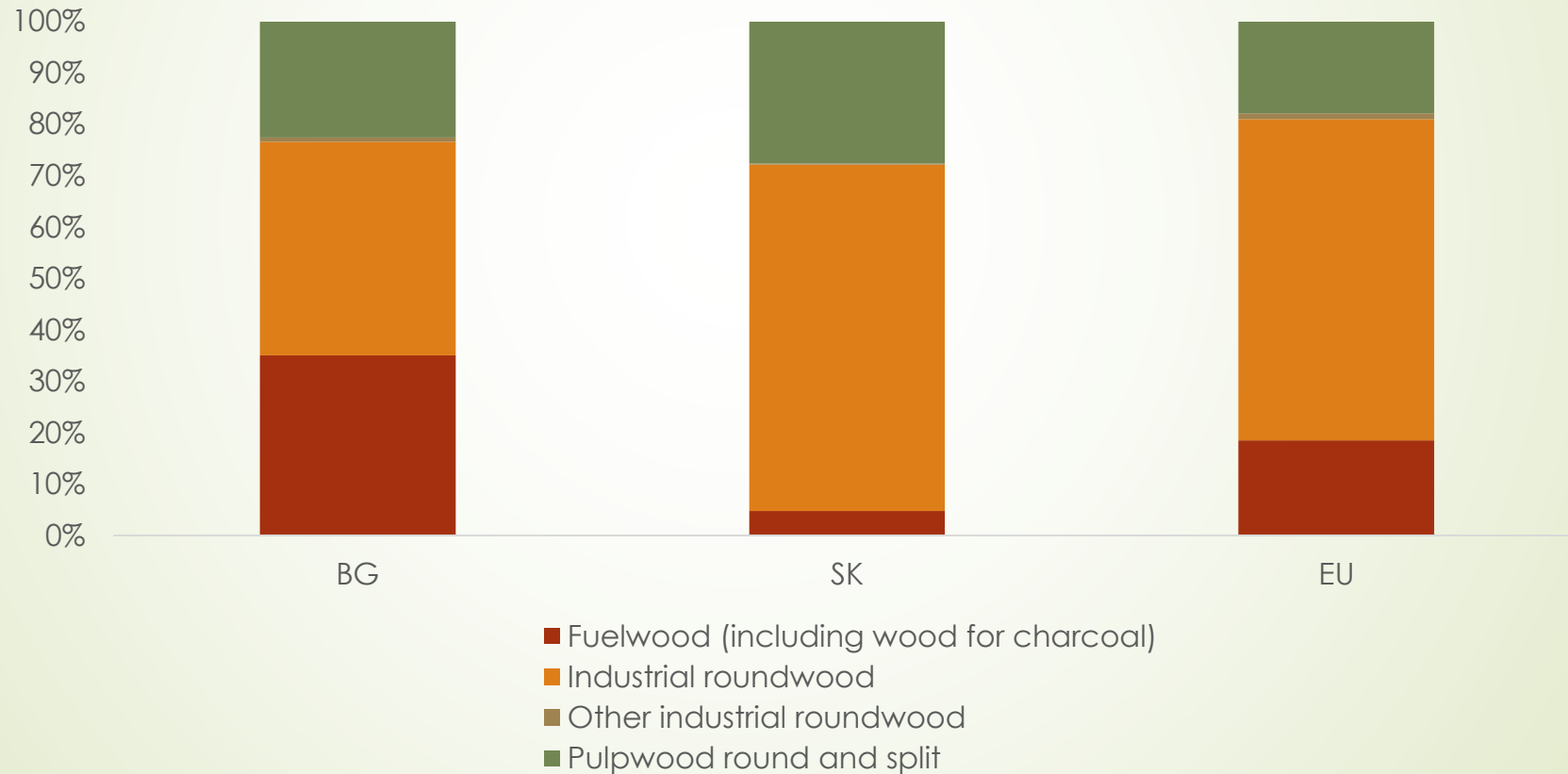
Fuelwood (including wood for charcoal)	-4.7%
Industrial roundwood	-1.5%
Other industrial roundwood	-38.1%
Pulpwood round and split	1.5%
Roundwood (wood in the rough)	-3.0%
Sawlogs and veneer logs	-2.1%

Harvesting volumes, Index, 2011 base

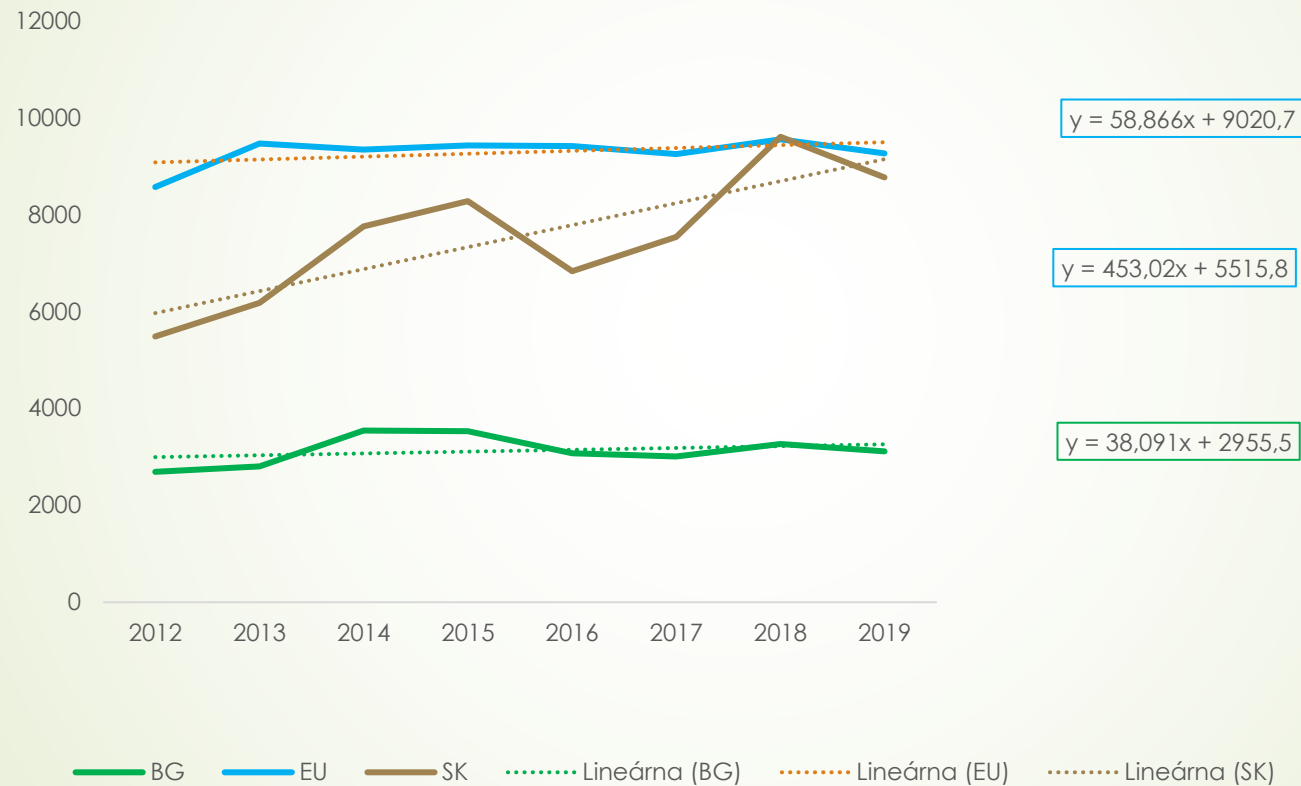


General information

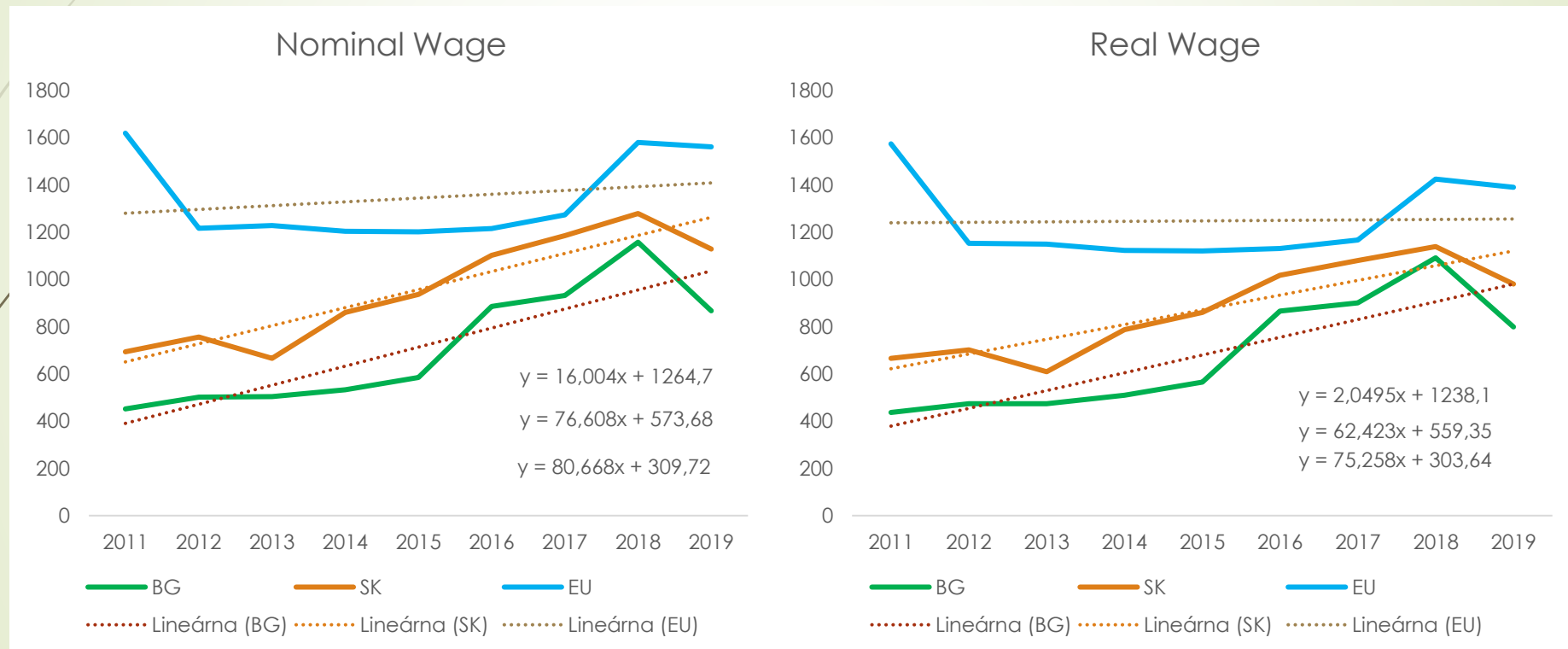
Structure of harvesting



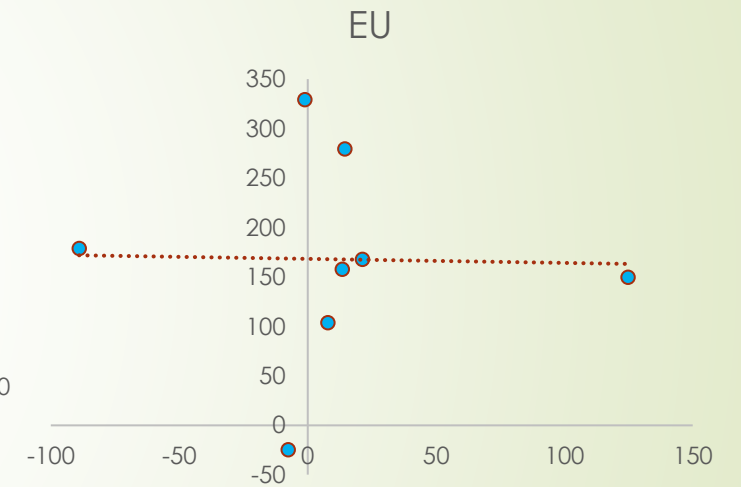
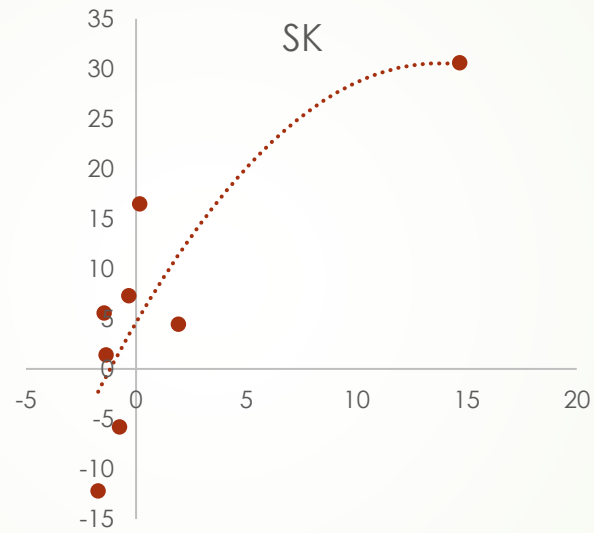
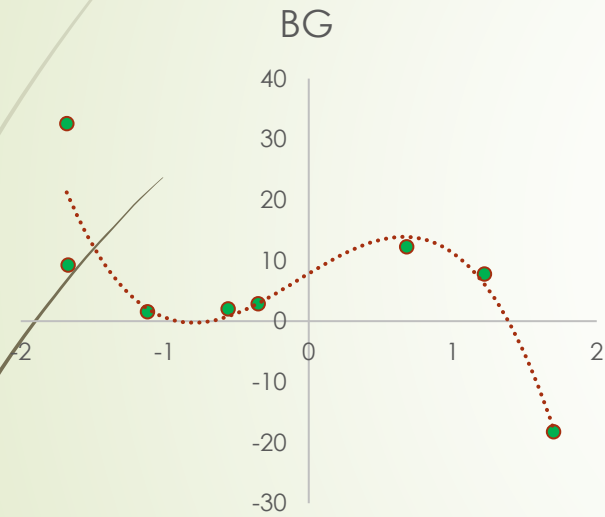
Productivity of Labour, EUR



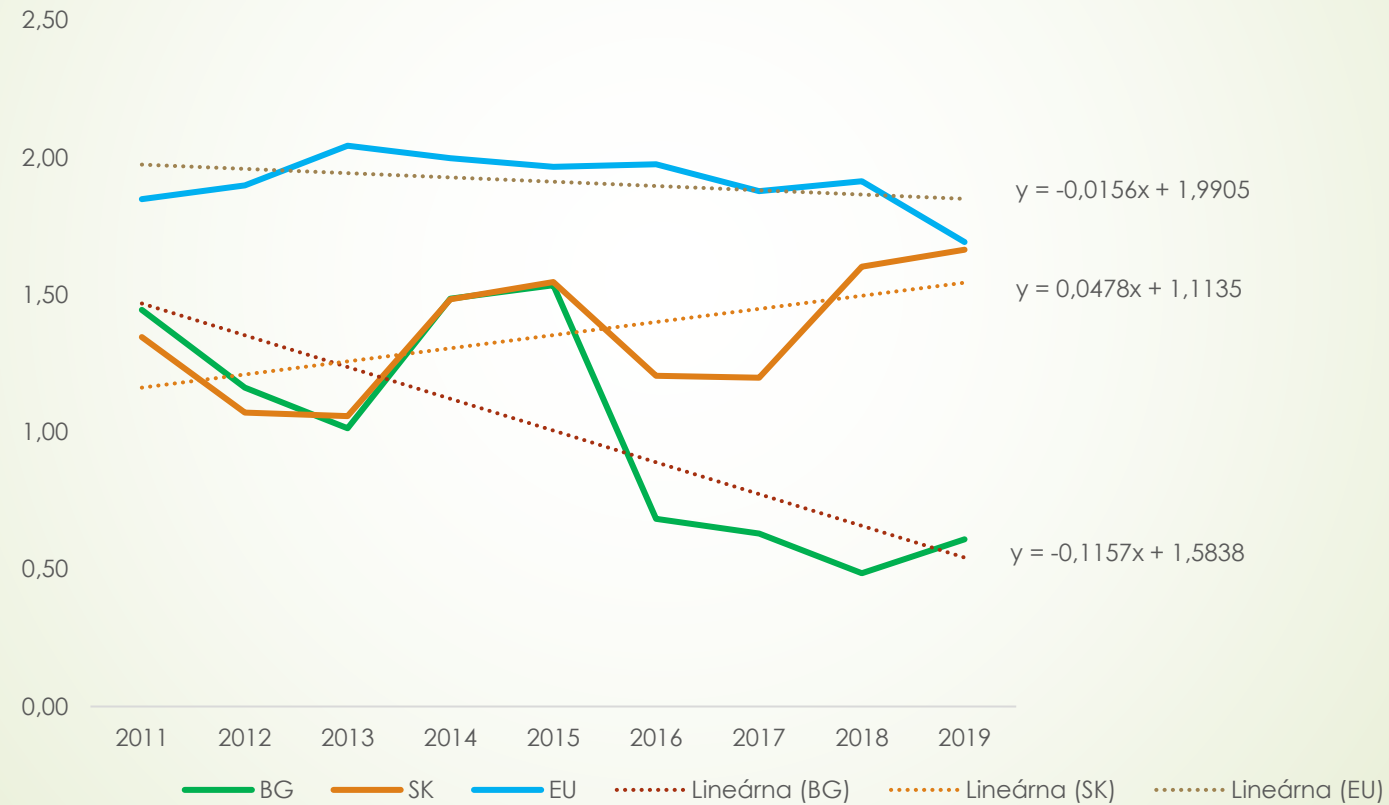
Compensation of employees



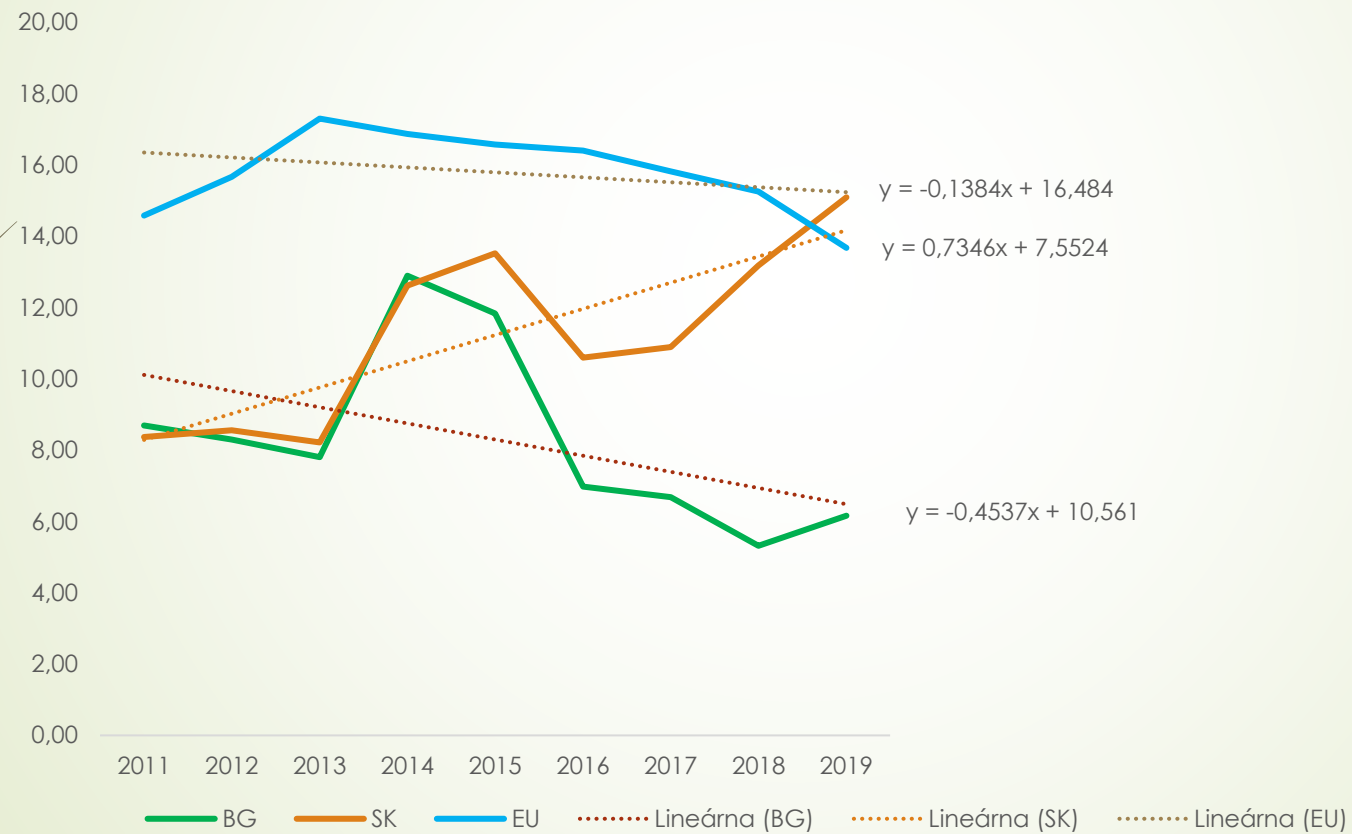
Compensation of employees



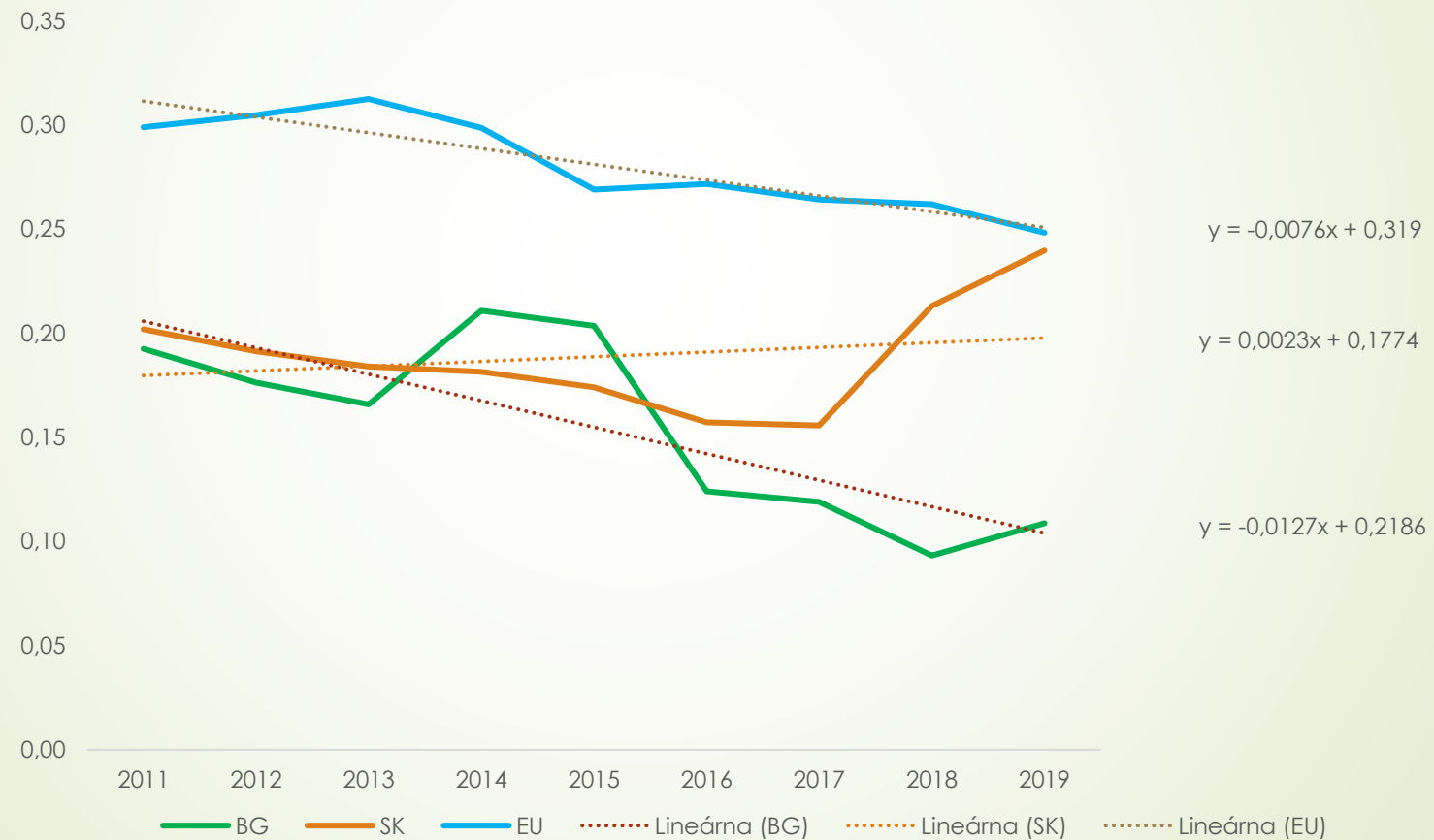
Profitability – labour costs, EUR



Profitability – volumes harvested, EUR/ m^3



Profitability – revenues, EUR



Main collusions and perspectives for the Bulgarian Forestry - SWOT



► **Strengths:**

- Bulgarian forestry has long-standing traditions. This will allow it to overcome the current situation, which leads to many challenges.
- In recent years, numerous initiatives have been undertaken to restore poplar crops, as well as to provide technical support for those working in the sector.

► **Weaknesses:**

- Bulgarian forestry suffers from low productivity. Unlike the Slovak one, the Bulgarian has no positive trend. In the same time it is behind the Slovak one in about 3-4 times and behind the EU average in about 5 times. This can be fatal for the future if no measures are taken.
- The machinery and equipment have not been improved during the period of research. Even more the formation of fixed capital falls deeply below the national level of this indicator.

Main collusions and perspectives for the Bulgarian Forestry - SWOT



► **Weaknesses:**

- The analyses showed the nonlinear relationship between number of people employed in forestry and the levels of the wages. That means unstable wages according to people being employed. In difference, in Slovakia the relationship is positive.
- Low profitability is also very important issue. Unlike Slovakia, which in this case plays a benchmark, in Bulgaria the trend is strongly negative. The main reason could be the low productivity.
- The COVID 19 pandemic caused a fall in the harvesting in about 15%, which led to troubles weaken the relations between forestry units and the vendors of logging services.

Main collusions and perspectives for the Bulgarian Forestry - SWOT



► **Opportunities:**

- The low levels of GFCF provide the opportunities to invest in machinery and equipment. By this way many of the services typical to Bulgarian forest enterprises will be carried out more efficiently.
- Attracting better educated and motivated people with improving the real wages. Analysis presented, that this is the only positive trend in the economic indicators of Bulgarian forestry. If the annual indexation of wages exceeds 15% will exist the opportunity qualified people to start their jobs in forest departments.
- The share of the fuelwood will increase due to the war in Ukraine and the revenues.

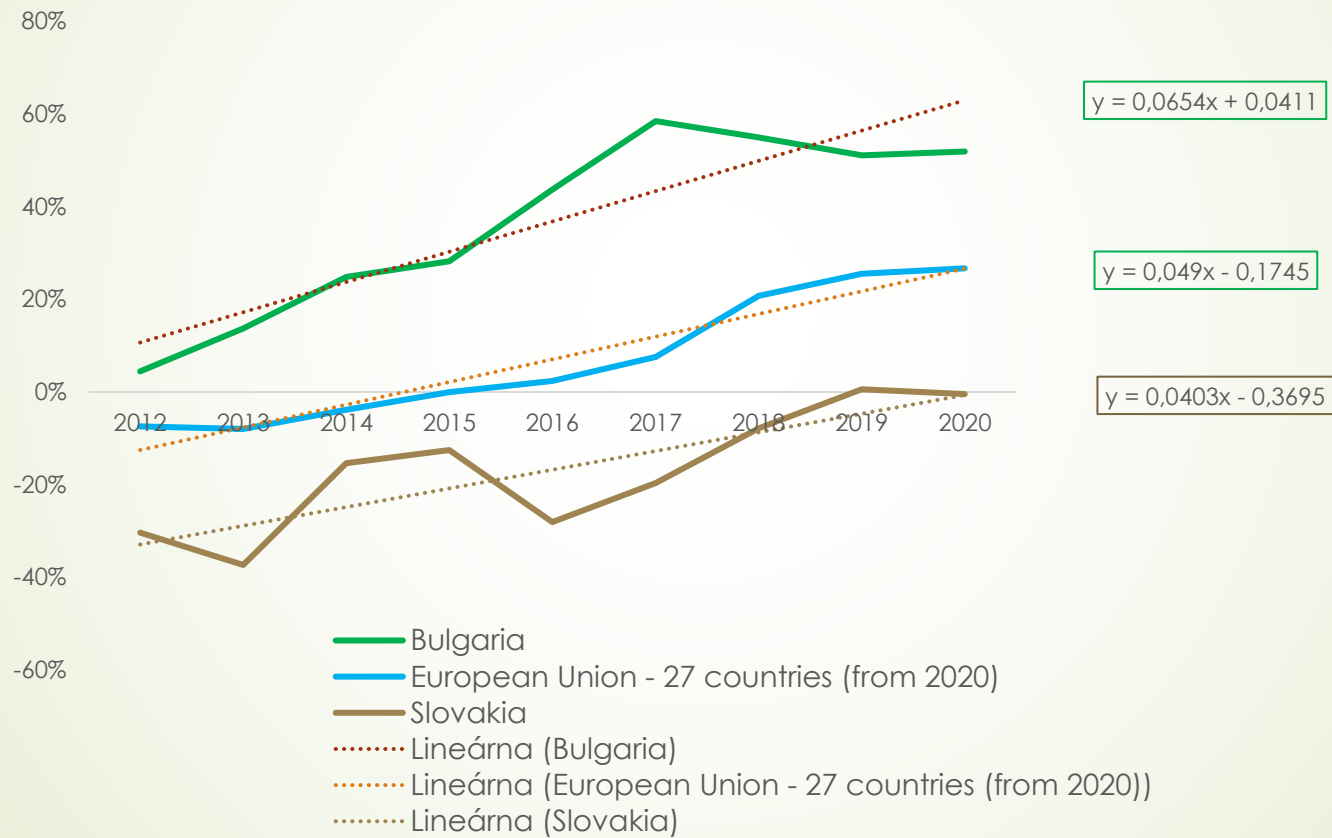
Main collusions and perspectives for the Bulgarian Forestry - SWOT



► Threats:

- The main threat is the lack of human resources. The downfall during COVID forced many of the forest departments to layoff people. The most significant threat is the vendors of logging services to quit the business.
- Inflation could be very important threat that could cause people to buy mostly fuel wood, but not furniture or something. By this way the product mix of the Bulgarian forestry will even more focused on the fuel wood, which in turn is not as profitable as the industrial roundwood is.

Industry – C16, GVA – index, 2011 base

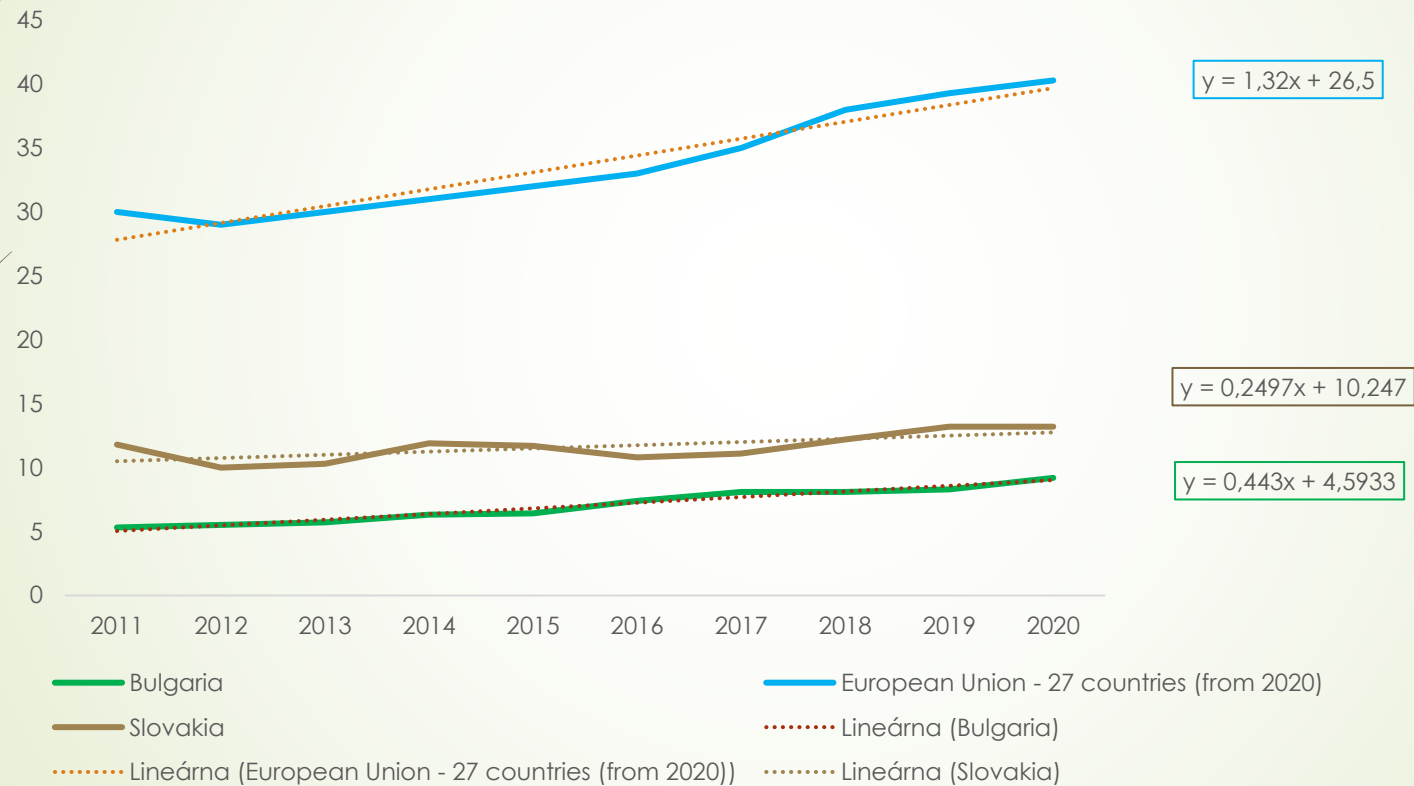


Industry – C16, Output – structure

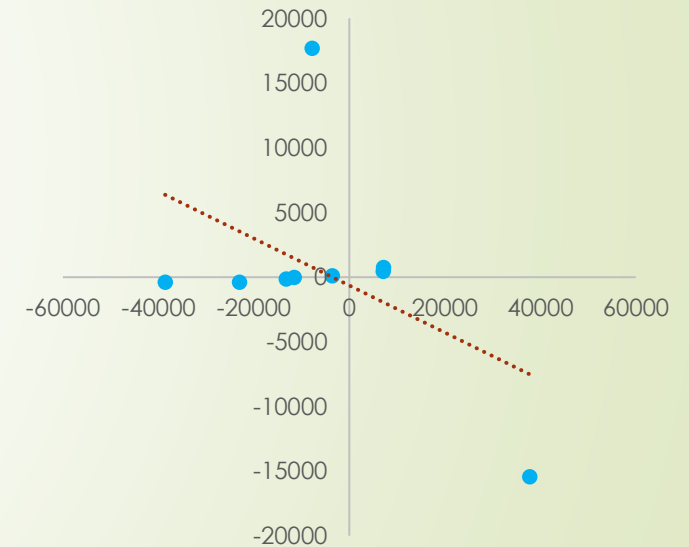
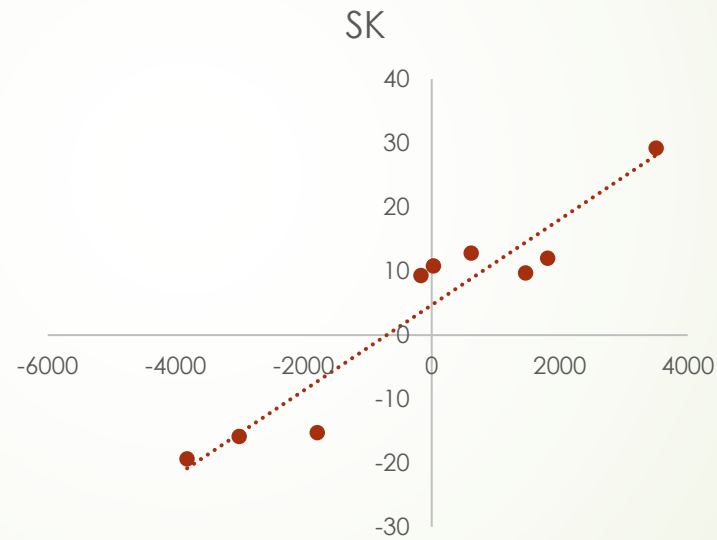
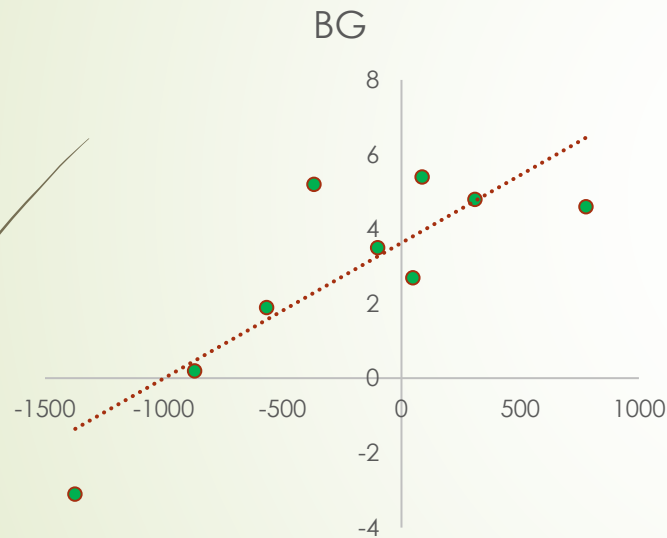


	BG	SK	EU
Manufacture of assembled parquet floors	0.4%	0.4%	0.5%
Manufacture of other builders' carpentry and joinery	4.0%	14.0%	29.9%
Manufacture of other products of wood; manufacture of articles of cork straw and plaiting materials	12.5%	8.2%	7.2%
Manufacture of veneer sheets and wood-based panels	28.5%	15.6%	9.3%
Manufacture of wooden containers	9.8%	4.2%	8.7%
Sawmilling and planing of wood	44.8%	57.6%	44.4%

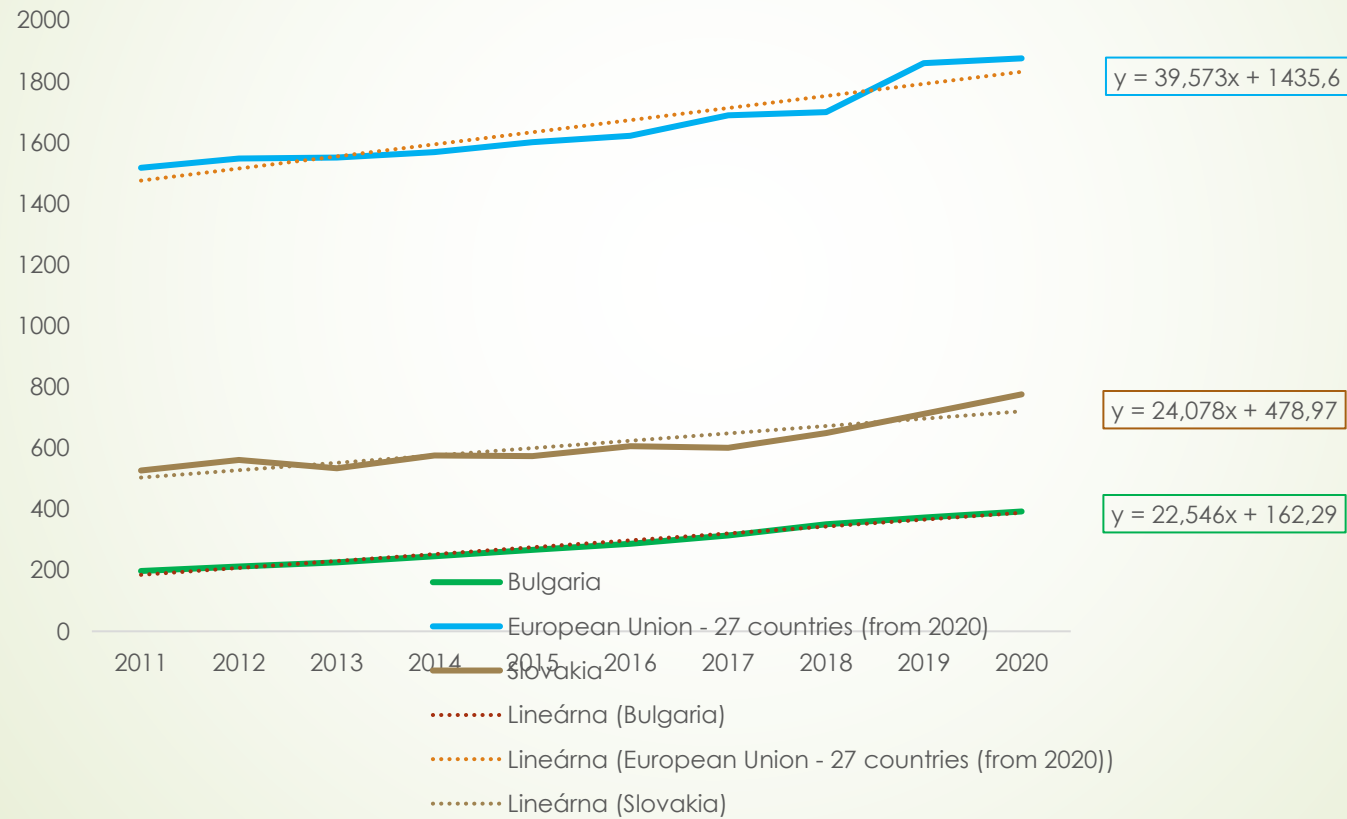
Labour productivity, in thousand EUR, C16



Compensation of employees – relations



Compensation of employees, C16



Enterprises structure by size, C16



	BG	SK	EU
250 persons or more	0%	0%	0%
From 0 to 9 persons	78%	97%	90%
From 10 to 19 persons	12%	2%	5%
From 20 to 49 persons	8%	1%	3%
From 50 to 249 persons	2%	0%	1%

Profitability of wages and salaries by size, EUR, C16



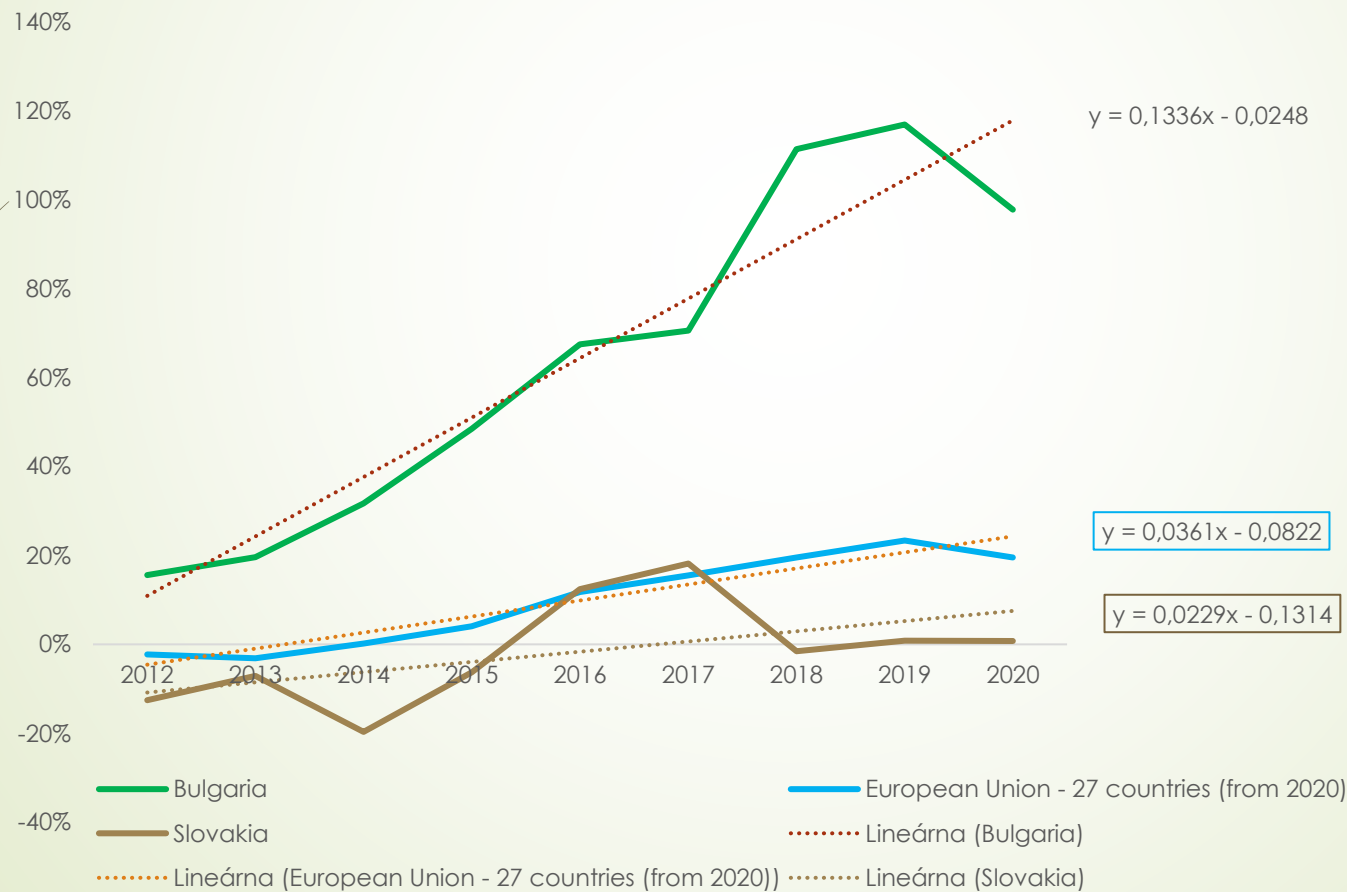
	BG	SK	EU
250 persons or more	0.91	0.54	1.59
From 0 to 9 persons	1.17	3.76	0.22
From 10 to 19 persons	0.93	0.76	1.24
From 20 to 49 persons	1.10	0.36	2.29
From 50 to 249 persons	1.03	0.23	2.27

Profitability of turnover, EUR, C16



	BG	SK	EU
250 persons employed or more	0.07	0.12	0.09
From 0 to 9 persons	0.11	0.17	0.14
From 10 to 19 persons	0.11	0.07	0.08
From 20 to 49 persons	0.13	0.04	0.07
From 50 to 249 persons	0.12	0.03	0.07

Industry – C31, GVA – index, 2011 base

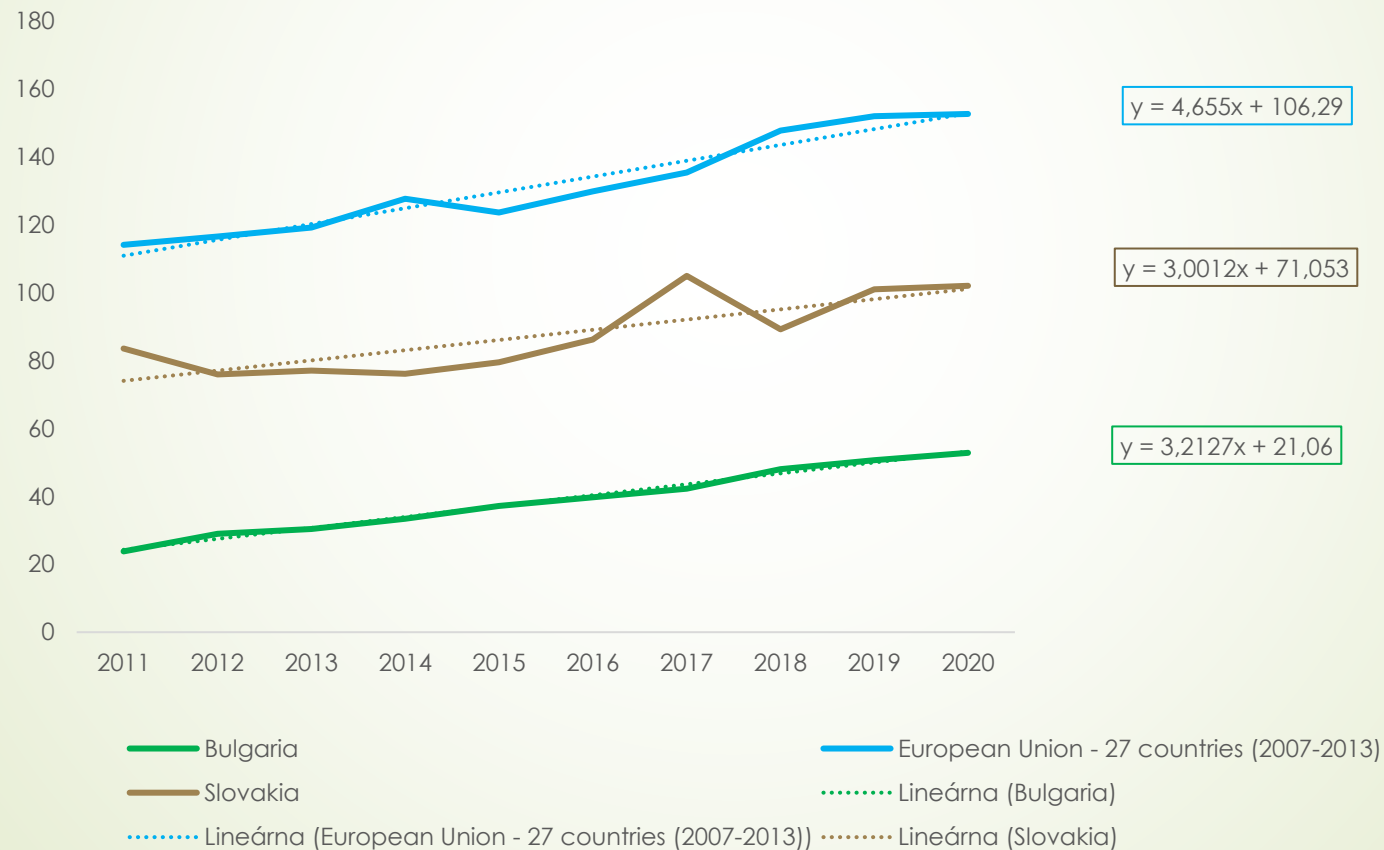


Industry – C31, Output – structure

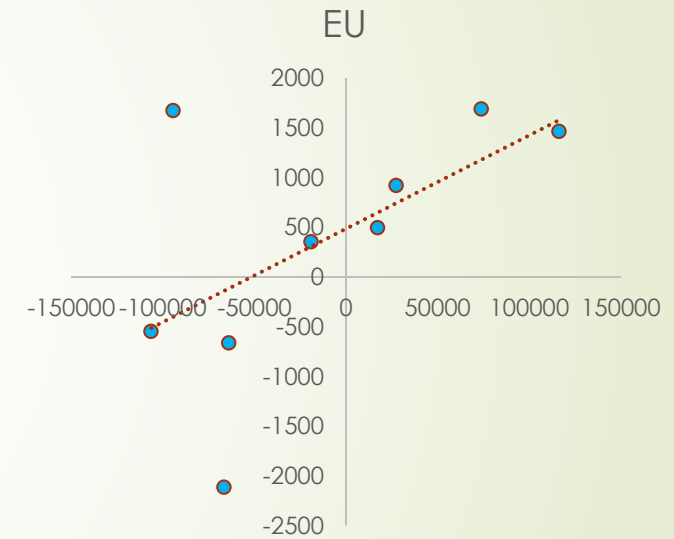
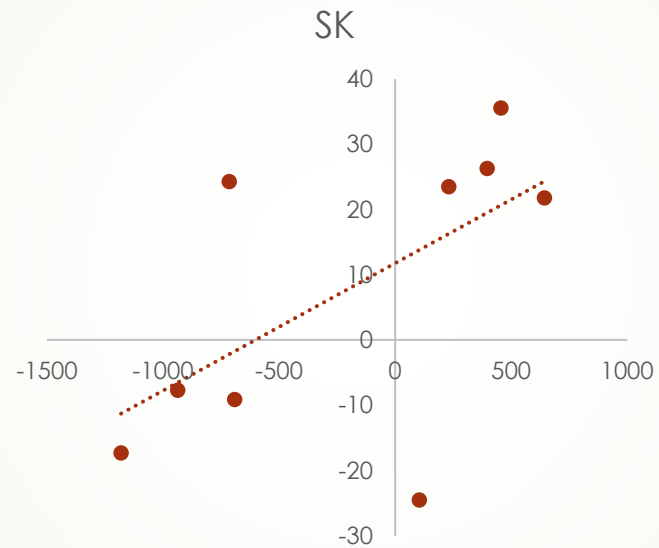
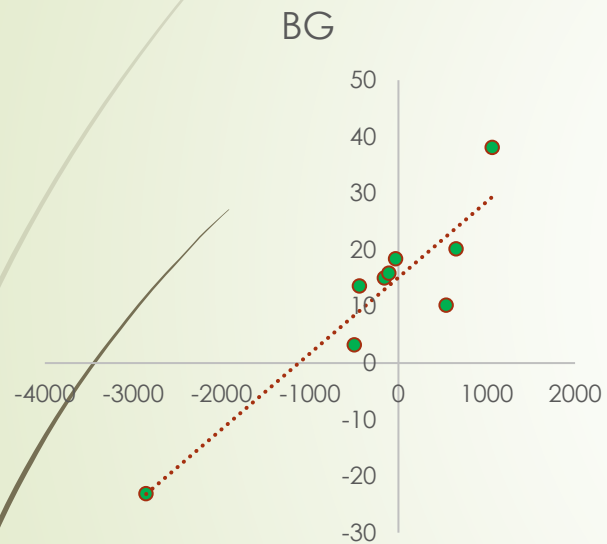


	BG	SK	EU
Manufacture of kitchen furniture	9.4%	1.9%	14.0%
Manufacture of mattresses	7.2%	3.7%	4.4%
Manufacture of office and shop furniture	14.4%	10.1%	24.9%
Manufacture of other furniture	69.0%	84.3%	56.7%

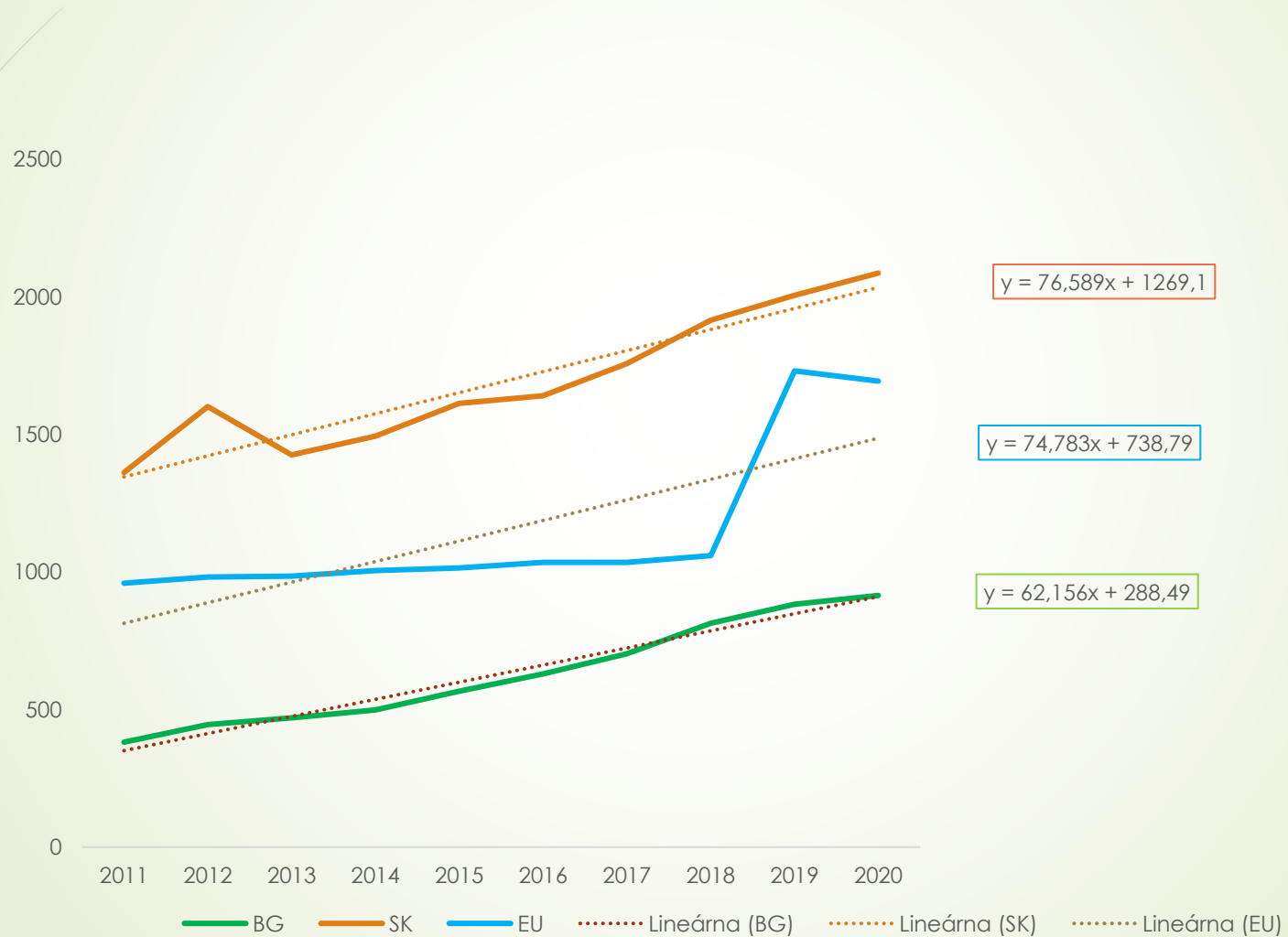
Labour productivity, thousand EUR, C31



Compensation of employees Relations



Compensation of employees, C31



Enterprises structure by size, C31



	BG	SK	EU
250 persons or more	0.4%	0.5%	0.3%
From 0 to 9 persons	82.4%	86.8%	85.1%
From 10 to 19 persons	8.4%	6.2%	6.7%
From 20 to 49 persons	6.1%	3.6%	3.8%
From 50 to 249 persons	2.8%	2.8%	1.9%
Total	100.0%	100.0%	100%

Profitability of wages and salaries by size, EUR, C31



	BG	SK	EU
250 persons employed or more	0.89	0.0	0.5
From 0 to 9 persons	0.60	2.4	0.9
From 10 to 19 persons	0.71	0.7	0.4
From 20 to 49 persons	0.85	0.4	0.4
From 50 to 249 persons	0.89	0.5	0.4

Profitability of turnover, EUR, C16



	BG	SK	EU
250 persons or more	0.89	-0.02	0.08
From 0 to 9 persons	0.60	2.37	0.14
From 10 to 19 persons	0.71	0.67	0.09
From 20 to 49 persons	0.85	0.37	0.07
From 50 to 249 persons	0.89	0.49	0.07

Main collusions and perspectives for the Bulgarian Forest industry - SWOT



► Strengths:

- Bulgarian forest industry has many strengths. Amongst the most important is the index of the GVA. It is highly positive and above the average in the EU. Especially the furniture industry. There, the market growth is so significant that the drop during COVIDA is compensated in the long-term trend. According to data from enterprises, the furniture industry in Bulgaria has reached the sales levels of 2019.
- The relationship between number of employees and the wages is strongly positive. This means, that the entrepreneurs apply adequate policy on their human recourses.
- In the both sectors C16 and C31, the enterprises follow the EU structure of their number by type. This reveals the good market integration of the sectors.
- The furniture manufacturing in the country performs really good.

Main collusions and perspectives for the Bulgarian Forest industry - SWOT



➤ **Weaknesses:**

- The low productivity appears as an issue again. The smaller scaled Slovak furniture manufacturing performs much better in the meaning of productivity.

➤ **Opportunities:**

- The biggest opportunity for forestry companies is to gain a competitive advantage in times of crisis. Now is the time to apply EU funding mechanisms to improve processes and create new products. Inflation and the war in Ukraine are common problems in the whole of Europe, so it is now necessary to optimize processes and diversify production.

Main collusions and perspectives for the Bulgarian Forest industry - SWOT



► Threats:

- Low productivity and low annual increment of wages will turn people away to search job in this industry.
- Inflation can turn the consumers into savings generation behaviour.
- Lack of human resources in the country and high immigration rate can endanger the enterprises and their survival.

Conclusion



- ▶ The presented analysis of forestry and the forest industry in the country revealed circumstances that must be urgently overcome. The problem of low productivity is fundamental. As seen in the analysis, the furniture industry has a very good economic activity, with high profitability and high growth. At the same time, productivity is very low. The future is in well-trained personnel. They must enter the enterprises from the student bench.
- ▶ In forestry, the situation is more difficult. It is a very country dependent sector Its future is in the bowels. Outdated equipment lead to theft of wood, fires, etc. The problem with personnel is the same as with industry. The conditions in the forestry sector are very difficult, and therefore an option for increasing the added value should be sought, and hence the indexation of salaries with a percentage above inflation.



Thank you for your attention