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CONTRIBUTION OF SMEs TO THE BULGARIAN EXPORT[4]

The paper presents the findings of a study on the contribution of small and medium-sized enterprises (SMEs) to the Bulgarian export. The study compares the structures of the exporting companies from Bulgaria with the companies in other EU member states. The preferences of the companies for trade in the EU and with third countries are also taken into account. The picture of the internationalization of the Bulgarian enterprises is supplemented by an analysis of the structure of the exporting companies by economic sectors. The study contains also estimates of the amount of the value added in the export realized by different categories of companies.
JEL: P45; D22; F23; L25

The paper presents the findings of a study on the contribution of small and medium-sized enterprises (SMEs) to the Bulgarian export. It uses public data of the National Statistical Institute of Bulgaria (NSI), Bulgarian National Bank (BNB) and Eurostat on the Bulgarian foreign trade activity. The analysis covers the period 2009-2019. The foreign trade processes in 2020 are not typical (due to the COVID-19 pandemic situation in 2020), so they are not included in the analysis.

1. General Characteristics of Bulgarian Export

In the years after the global economic crisis of 2008-2009, "export of goods and services recover quickly and become a main factor for post-crisis growth in the country" (Zlatinov, 2018). Figure 1 shows the impact of export on the realization of GDP growth.

During the studied period, goods constitute for an average of about 76% of all Bulgarian export, while services – an average of 24%.

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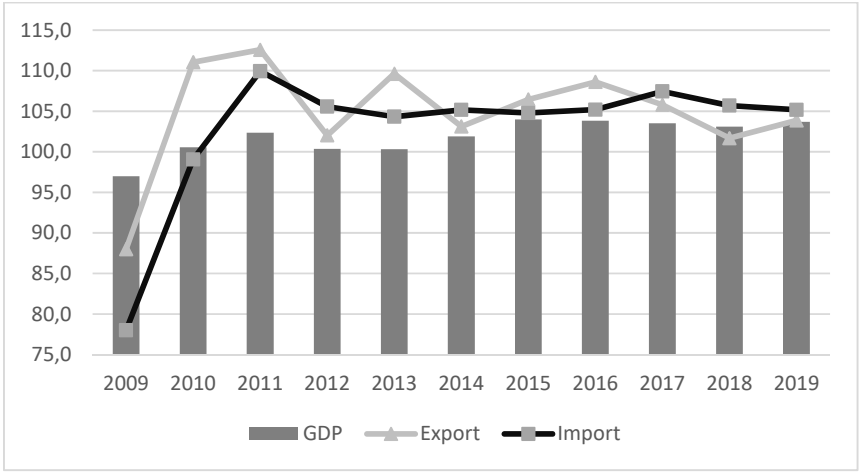
Figure 1

Index of physical volume of GDP, export and import of Bulgaria (%)



Source: NSI data.

During this period, Bulgarian companies have export[5] higher than the levels before the global economic crisis (2008-2009). Export has a new structure (Figure 2).

Figure 2

Share of goods and services in Bulgarian export, 2009-2019 (%)

Source: NSI data.

[5] "Export" refers to both intra-EU transactions and transactions with third countries.

The structure of the exported goods by type of usage shows that the economy maintains the permanently established predominant export of raw materials (Figure 3).

Figure 3

Structure of export of goods by type of usage, 2009-2019 (%)

Source: BNB data.

Figure 3 shows that "Raw materials" have the highest share in the export of goods from Bulgaria (about 40%). In this group, the largest contribution is by "Non-Ferrous Metals" and "Raw Materials for Food" (both about 8% of all export of goods). The second group of goods in terms of their share in export is "Consumer Goods" (about 25%). The representatives with the highest values here are "Food" (6%) and "Clothing and Footwear" (5% of all export). The third group is "Investment Goods" (about 24%). The largest turnover of the group is for "Spare Parts and Equipment" (6%) and "Machinery, Appliances and Apparatus" (6% of the export of goods in the country). Fourth is the group "Energy Resources" (11%). Dominant in it are "Petroleum Products" (8%).

The outlined export structure by type of usage shows that Bulgaria remains an exporter mainly of goods with low added value. The established trend for export of goods with a low degree of processing, including raw materials and goods with relatively low added value, "shows the structural problems of the Bulgarian foreign trade and economy" (Bobeva, 2020). In the period after 2013, there is a decrease in the share of "Raw Materials" and "Consumer Goods" by 1-2% at the expense of an increase in the share of "Investment Goods" by 3%. This seems to be a favourable trend for bigger export of higher value-added goods.

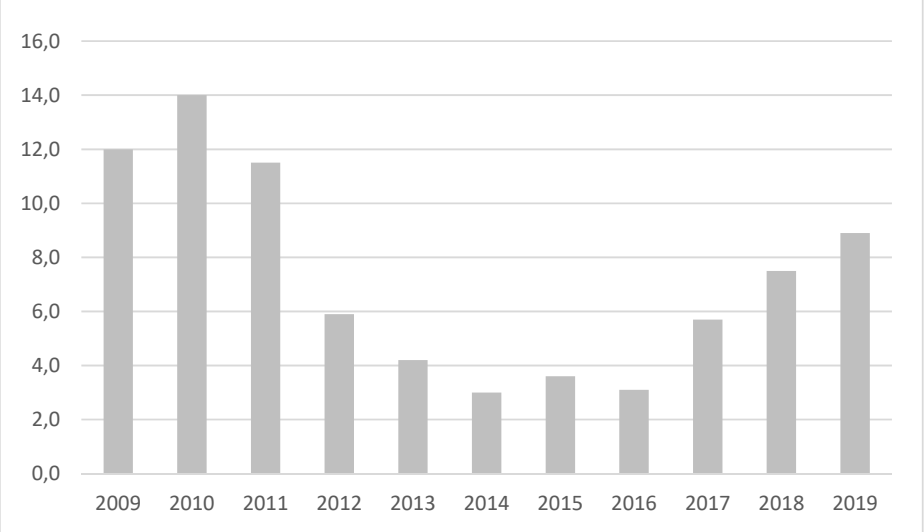
In the period after 2009, the export of services accounts for an average of 24% of the country's total export. Among the services, the biggest share belongs to those classified as *"Travels"* (services provided to foreign nationals in Bulgaria). They account for an average of 43% of the export of services. The other large group – *"Transport"* – has a relative share of nearly 29%. The third group – *"Other services"* – is about 28%. Their disaggregation shows that the biggest share is for *"Telecommunications, computer and information*

services" (10%). They are followed by *"Technical services, trade-related services and other business services"* (7%), and *"Professional and management consulting services"* (4%). Some authors consider that the speed of services and better quality and design of products, which the enterprises offer, will strengthen the company's reputation on the domestic and foreign markets (Georgieva, Vasilska, 2019).

Characteristic of the environment, in which the exporting companies operate, is its high dynamics. One of the indicators that characterize it is "Terms of trade". The indicator compares the prices of exported goods with those of imported ones. It is considered that "terms of trade" is a measure of the trade competitiveness, since the indicator represents how many imports can be obtained per unit of exported goods and services. The indicator refers to the percentage change in 5 years, i.e. the data are expressed as a percentage change from year Y to year Y-5. Its values for the studied period for Bulgaria are presented on Figure 4.

Figure 4

Terms of trade, Bulgaria, 2009-2019



Source: NSI data.

By 2015, the values of the indicator tend to decrease. After 2015, there is a steady growth of the indicator, which outlines an increase in the trade competitiveness of the Bulgarian export. This trend in itself is positive, but the more serious problems with the still unfavourable structure of export remain.

Geographical concentration and geographical sustainability of Bulgarian export

The relation of the Bulgarian exporting companies with the economic situation in other countries – main trading partners, is studied with the geographical concentration of export.

The established "foreign trade relations are stable when foreign trade transactions are sustainable" over the years (Marinov, 2015). It is considered that the choice of the first foreign partner is determined by the existence of previous management experience – those who do not have such experience are more oriented towards geographically and culturally proximate countries (Kolarov, Ivanova, Todorov, 2018). Coefficient for the Geographical Concentration of foreign trade (GCr) is used (Galabova, Nestorov, 2018). It is calculated as the relative share of the sum of the first 5 partner countries in the geographical distribution of export divided to the sum of transactions with all countries. Its mathematical notation is expressed by the following formula:

$$GCr = \frac{\sum_{1}^{5} topD}{\sum_{1}^{n} D} \quad (1)$$

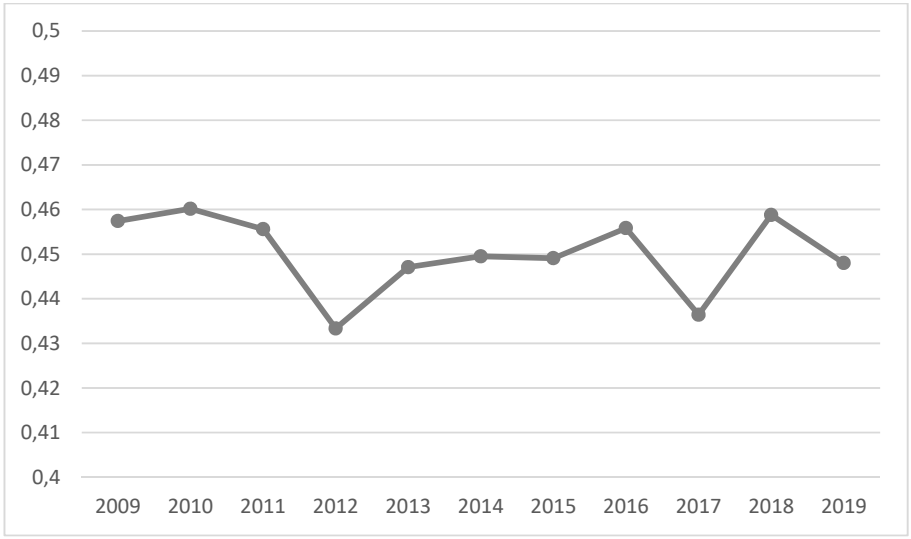
where:

D – value volume of foreign trade transactions with *n* number of countries
top – members of a ranked order of transactions

Its values vary from 0 to 1. The smaller the corresponding value, the lower the geographical concentration, in other words – diversification is achieved. And the opposite, the higher its value, the higher the geographical concentration. The calculations of GCr coefficient of the Bulgarian export for the period 2009-2019 are presented on Figure 5.

Figure 5

Geographical concentration of Bulgarian export, 2009-2019



Source: own calculation with NSI data.

Figure 5 shows that the values of the coefficient of geographical concentration for the studied period vary in the range from 0.43 to 0.46. This corresponds to the share of the 5 leading partner countries in Bulgaria's export. The variation is in a relatively short range, which indicates the absence of turbulent processes. According to the limits of interpretation, it can be assumed that Bulgarian export has a "balanced geographical structure".

The interpretation of the indicator gives information on the degree of dependence of a country on its foreign trade partners and their market terms, political, social and economic environment. It has been proven that a bigger degree of concentration is unfavourable, since it shows a bigger degree of dependence and commitment with fewer foreign trade partners and their terms of trade and vice versa. The bigger degree of diversification is rather favourable, since it reflects bigger independence and a lack of strong commitment. It shows less vulnerability of the country to external shocks and shakes, which can significantly change the geographical distribution of the foreign trade.

The analysis of a country's foreign trade relations should take into account their sustainability over time. To measure the sustainability, the Coefficient of Geographical Sustainability of foreign trade (GSr) to all export is used (Galabova, Nestorov, 2018). The coefficient reflects the changes in the structure that have occurred over time. Its mathematical notation is expressed by the following formula (2):

$$GSr = \frac{\sum_{1}^{5} \frac{C}{m}}{5} \tag{2}$$

where:

C – number of times the partner country has been on the first five positions of the geographical structure by the individual periods
m – number of studied periods

The values of the coefficient vary from 0 to 1. The lower the value, the lower the sustainability of export/import partner countries, in other words – the geographical structure is dynamic. And the opposite, the higher the value of the coefficient, the higher the geographical concentration – the longer the partner countries remain.

The coefficient for geographical sustainability, calculated for Bulgarian export for the period 2009-2019, is to exactly 1. This corresponds to a "highly sustainable geographical structure". Practically, the top 5 partner countries in Bulgaria's export have not changed during the studied period. These are Germany, Italy, Romania, Turkey, Greece. It can be concluded that the established foreign trade relations are extremely stable.

Foreign trade theory and practice prove that bigger sustainability over a long period is a favourable development scenario, since it shows relative stability and predictability. If the partner countries do not change significantly over the years, it can be argued that the implemented foreign trade policy is characterized by a specific geographical direction. On the contrary, with a lower degree of sustainability of the relations, significant changes in the structure of foreign trade are observed. If such changes are made in short periods, this

indicates a lack of stability and predictability of the implemented policy. For these reasons, "the sustainability of the foreign trade relations is one of the important characteristics of the foreign trade" (Tassev, 2012).

High-tech export

In the framework of the economic studies, the share of high-tech export in total export is considered an indicator of a country's export development and its economic growth. That is why an analysis of the Bulgarian high-tech export is conducted. Its composition and structure are studied, as well as the trends and prospects for high-tech export productions.

The definition of "high-tech export" refers to the Organization for Economic Development and Cooperation (OECD). In its qualification, OECD defines high-tech export as "the export of technical products, the production of which involves a high intensity of R&D". Based on the Standard International Trade Classification (SITC), used for foreign trade transactions, some of the products are defined as "high-tech" in classes:

- Aerospace
- Computers and office machines
- Electronics and telecommunications
- Pharmacy
- Scientific instruments
- Electrical machinery
- Chemistry
- Non-electrical machinery
- Armament

For the purposes of the European Statistics, Eurostat adopts and adapts the classification of the high-tech products. Since 2007, the standard indicator "High-tech export in total goods export" for all countries adopting Eurostat rules is being calculated.

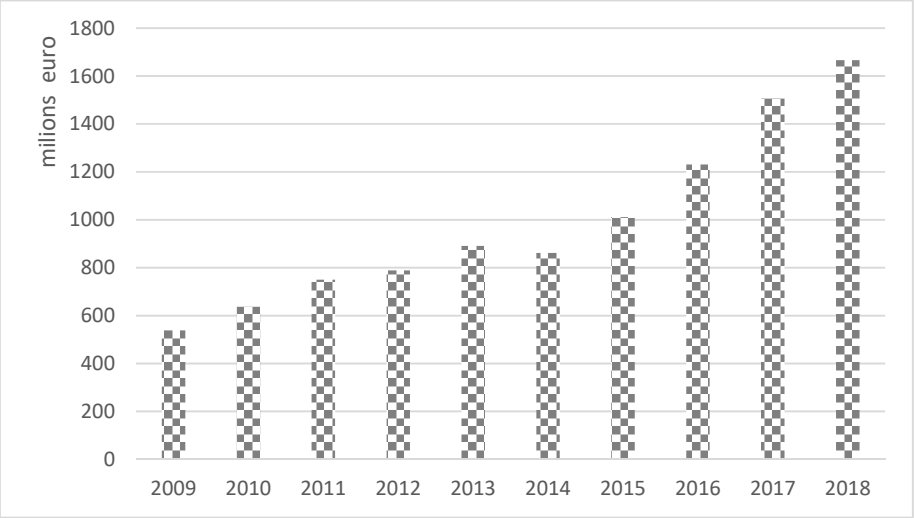
There are also methodological problems. High-tech products are defined by the positions of the SITC nomenclature. While, as a rule, data on foreign trade in Europe are collected according to another international classification – the Combined Nomenclature (CN). For the purposes of the studies, the values of the goods from one nomenclature should pass to the other, with a transition key. Unfortunately, the matching in the scope of the two nomenclatures at item level is not complete and for some positions, recalculations or indirect assessments are required.

The current study is based on data from the National Statistical Institute for the export of products from Bulgaria based on a 6-digit code of the combined nomenclature for the period 2009-2018. All positions are translated to the SITC nomenclature and aggregated at a higher level.

Figure 6 presents graphically the values of high-tech export of Bulgaria.

Figure 6

High-tech export of Bulgaria, 2009-2018



Source: own calculation with NSI data.

Figure 6 shows that Bulgaria's high-tech export is around 538 million EUR in 2009. In the following years it marks sustainable growth (except in 2014). At the end of the studied period (2018) high-tech export reaches a record volume of 1.667 billion EUR.

Figure 7 presents a comparison of the shares of high-tech export of Bulgaria and the EU-28.

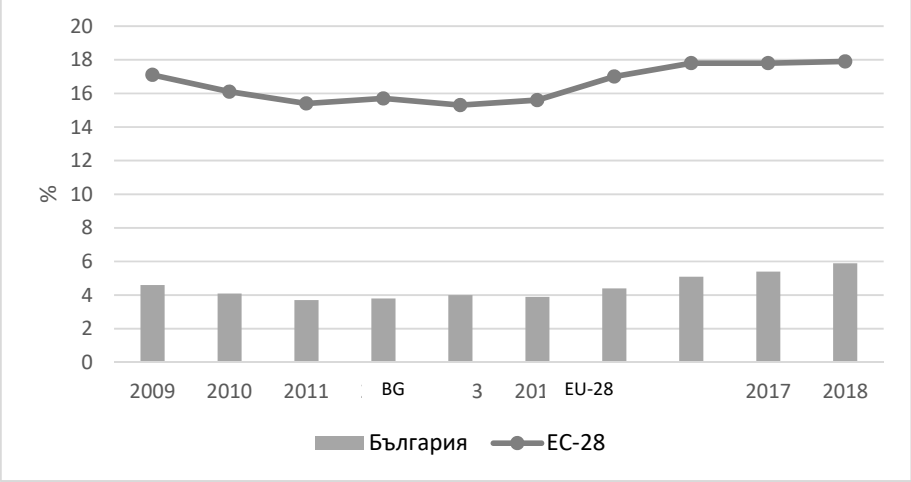
At the beginning of the period, high-tech goods form about 4% of Bulgaria's export of goods. During the studied period, this share increases to nearly 6% (in 2018). At the same time, the average European share (calculated for the 28-EU countries) is way higher than the Bulgarian one. It ranges from 15 to 18%.

Bulgarian high-tech export is also considered in structural terms (Figure 8).

By 2018, the leading group in high-tech export is "Integrated circuits, printed circuit boards, etc." (31%). The second largest group is "Optical elements and electronic devices" (12%). The third group is "Medicines" (10%). The fourth place is occupied by electrical components from group "Boards, panels, consoles" (5%). The group of "Other" includes export on the other positions of the high-tech export, including armament. Direct data on the latter are not available, since they fall under the hypothesis of non-proliferation according to the Statistics Act – Art. 25, para 2. That is why, an indirect assessment was used for the armament. It is noteworthy that the main part of the high-tech export is formed by intermediate components and not by final products.

Figure 7

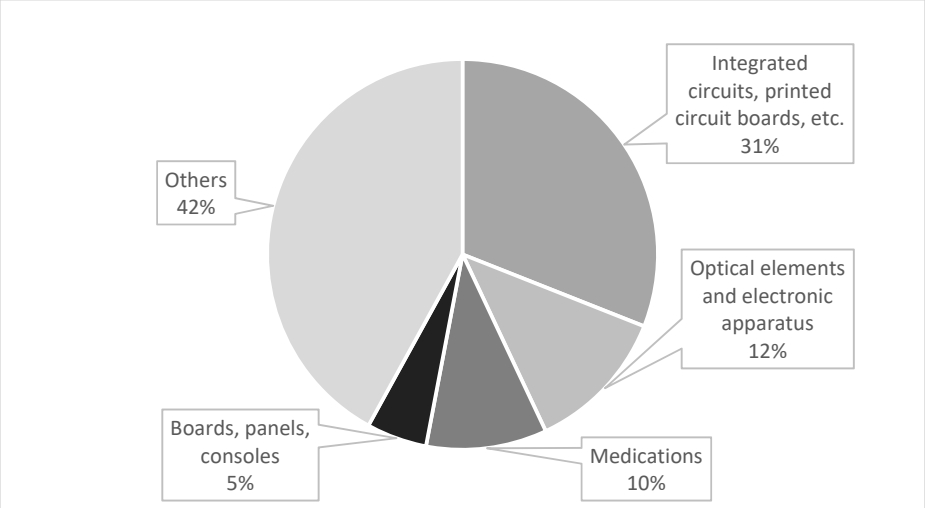
High-tech export in the total export of goods of Bulgaria and EU-28, 2007-2018



Source: NSI; Eurostat.

Figure 8

Structure of high-tech export of Bulgaria, 2018



Source: own calculations with NSI data.

In addition, the export of mainly intermediate components implies a higher dependence of the production and export on the situation of the producers of the final products for which these components are. As a whole, the high-tech export is associated with the innovative activity of companies. Studies show that "Bulgarian companies do not develop high-tech innovations, but mainly partial products and processes" (Georgieva, 2019). Also, companies "face big challenges related to the need for faster progress in the field of innovations" (Galabova, Trifonova, 2018). Meanwhile, another research of authors in the framework of the same project has found that regarding the main opportunities for international business development in the next 2-3 years, the most opportunities are proactive and related to both measures of international and general performance, such as growth by an increase in sales, profits, export, market share (Ivanova, Kolarov, 2020).

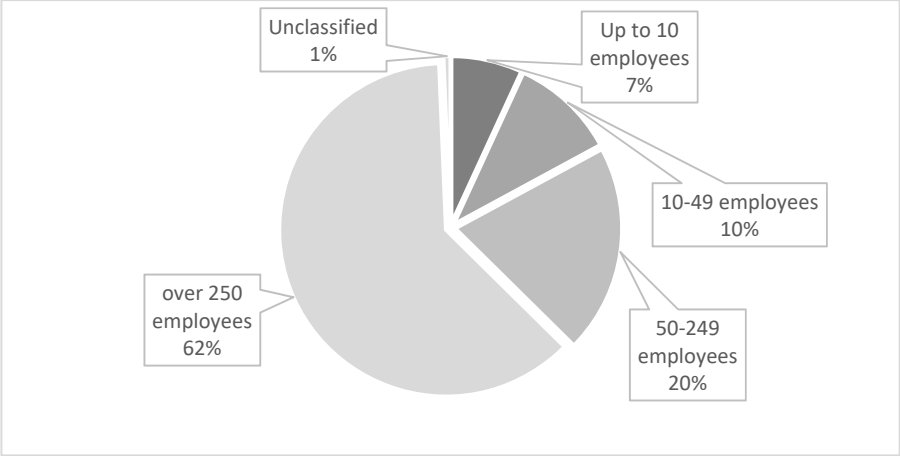
In conclusion, Bulgaria's high-tech export has a lower share than the average European one. There is also a tendency to increase the volumes and to expand the share of high-tech export in the total export of goods. Structurally, products of electronics dominate. The main part of the high-tech export is formed by intermediate components and not by final products. This also predetermines a stronger dependence on the economic situation in the main trading partner countries.

2. Foreign Trade Activity of the Bulgarian Companies

Eurostat collects information on the export of companies by their number of employees (2012-2018). According to the data, the companies are grouped as: up to 10 employees, from 10 to 49 employees, from 50 to 249 employees, over 250 employees. Figure 9 shows the contribution of the different groups of companies to the whole export of goods of the EU (including between the member states).

Figure 9

Export of the companies, by number of employees – EU-27, 2018



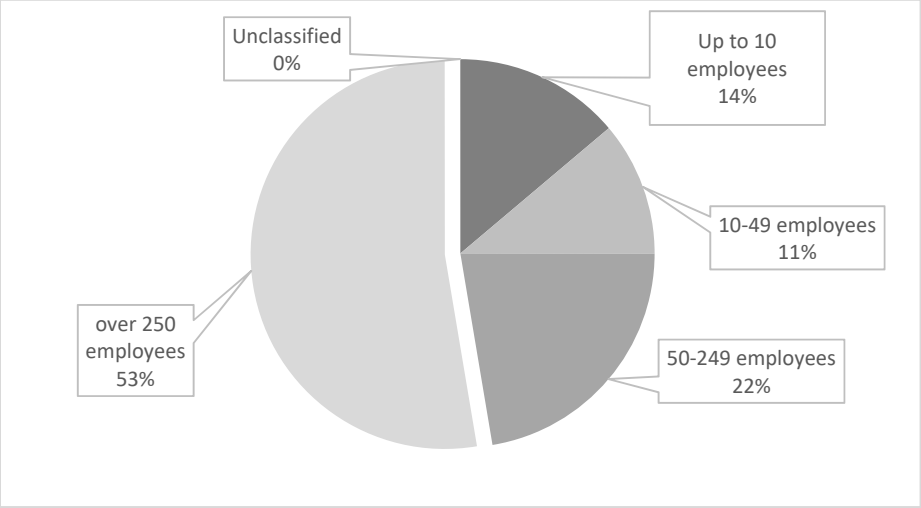
Source: Eurostat data.

Figure 9 shows that micro-companies with up to 10 employees form 7% of export. Small companies (with 10-49 employees) logically form a bigger share (10%). Medium-sized companies (with 50 to 249 employees) export 20% of the goods. Companies with over 250 employees form 62% of the export.

Figure 10 presents the distribution of the data only for Bulgaria.

Figure 10

Export of the companies, by number of employees – Bulgaria, 2018



Source: Eurostat data.

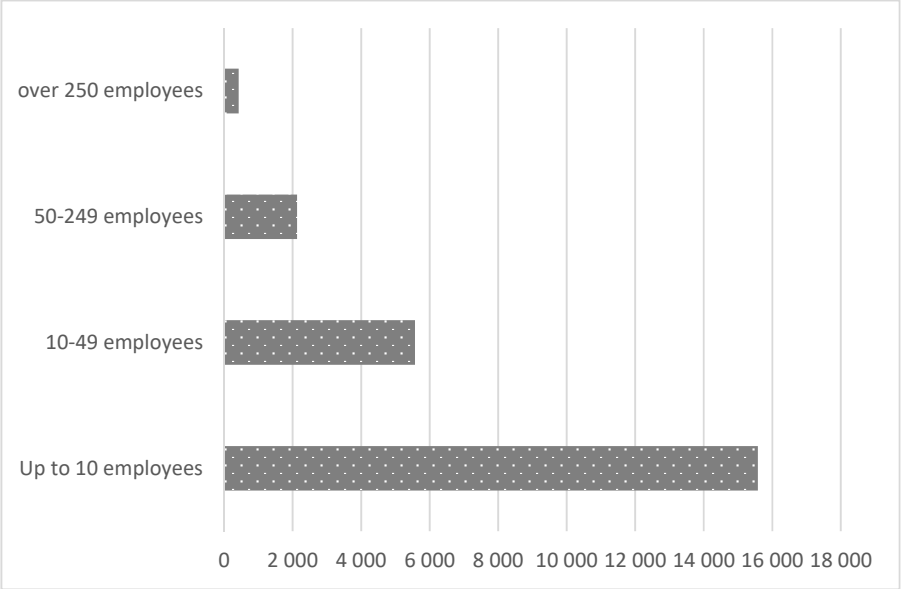
For companies with 10-49 and 50-249 employees, the shares are approximately equal to those of the entire EU. There is a significant difference in the companies with up to 10 employees. Their share in export of goods in Bulgaria is 14%, compared to the EU average of 7%. It is higher at the expense of the share of companies with over 250 employees. For Bulgaria, it is 53%, compared to the EU average of 62%.

Figure 11 shows data on the number of companies exporting goods.

The number of companies with up to 10 employees is the highest (15 500). The companies-exporters with 10 to 49 employees are 5500. The medium-sized companies are over 2000, and the large ones – a little over 400.

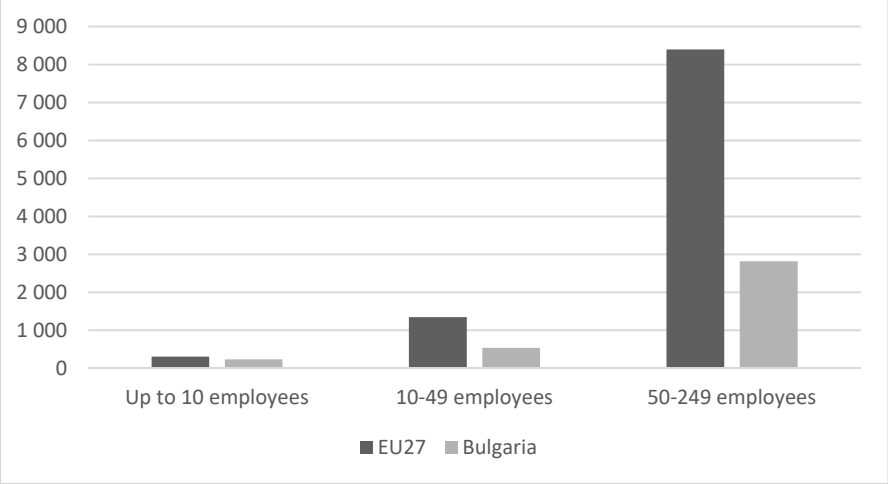
Figure 12 presents the results of the calculations of the average size of export realized by one company.

Figure 11
Bulgarian companies with export in 2018, by number of employees (number of companies)



Source: Eurostat data.

Figure 12
Average size of export of companies in Bulgaria and the EU, 2018, by number of employees and thousand EUR



Source: Eurostat data.

The number of companies with up to 10 employees is the highest (15 500). The companies-

For companies with up to 10 employees, Bulgaria is close to the European average – 238 000 EUR for Bulgarian companies, compared to 306 000 EUR per company for the EU. The highest values are in Ireland (with over 1.4 million EUR) and Cyprus (with over 1 million EUR per company). The lowest values are in Poland (with nearly 120 000 EUR) and Finland (with 130 000 EUR per company).

The situation of companies with more employees is different. Bulgarian companies with 10 to 49 employees are in the last place in the EU (with 539 000 EUR). The closest are the Polish companies (with 560 000 EUR) and the Portuguese ones (with nearly 580 000 EUR). The EU average is over 1.3 million EUR. The companies with the highest average values are from the Netherlands (3.9 million EUR) and Belgium (over 3.8 million EUR).

Bulgarian companies with 50 to 249 employees are also last in the ranking. They export goods on average for over 2.8 million EUR per year. Close in value are the companies from Romania (with over 3.1 million EUR). On average for the EU, the value is 8.4 million EUR of export of goods per company per year. The leading companies are in the Netherlands and Belgium (with respectively over 26.8 million EUR and over 24 million EUR). It is possible that the differences between Bulgarian enterprises and those from other countries can be explained with the difference in the levels of productivity of the enterprises in the different countries.

Eurostat monitors the foreign trade activity of the enterprises, both in terms of size and economic sectors. The distribution by sectors and size of the Bulgarian exporting companies is presented on Table 1.

Unfortunately, to a large extent, this detailed breakdown turns out to be in the hypothesis of the non-dissemination of statistical information, due to the small number of companies in the respective industry. Data on Table 1 show that micro-enterprises (with up to 10 employees) realize totally more export than companies with 10 to 49 employees. However, it is clear that micro-enterprises are dominated by transactions in the Trade sector (with over 3 billion EUR). It clearly leads with nearly 80% of the export of companies with up to 10 employees. It is followed by export transactions from the processing industry (over 200 million EUR). The other sectors have exports around several tens of millions of euros.

Small companies (with 10 to 49 employees) sell less in total than micro-enterprises. Leading again are the transactions of the Trade sector (nearly 1.6 billion EUR). The second place is occupied by Manufacturing, but with larger turnovers (1.1 billion EUR). The other sectors (excluding agriculture) realize smaller turnovers than micro-enterprises in the same sectors.

The situation is similar for medium-sized companies. The leading difference is that the transactions of the Manufacturing exceed those of the Trade sector. In the other sectors, similar and smaller turnovers are realized.

Table 1

Exports of Bulgarian companies, by number of employees, direction and economic sectors, 2018 (thousand EUR)

Export direction, Economic sectors	1-9 employees		10-49 employees		50-249 employees		250+ employees	
	Intra-EU	Extra-EU	Intra-EU	Extra-EU	Intra-EU	Extra-EU	Intra-EU	Extra-EU
Total all activities	3056529	658786	2085384	916580	4425534	1565705	8862183	5261728
Agriculture, forestry and fishing	31942	8112	39680	7103	35059	9200	*n/d*	*n/d*
Mining and quarrying	190	157	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*
Manufacturing	248368	69202	911195	227083	2896271	828079	8256206	4978212
Electricity, gas, steam and air conditioning supply	56110	4053	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*
Water supply; sewerage, waste management and remediation activities	3528	3653	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*
Construction	6807	1050	4028	2237	9078	3627	393	3799
Wholesale and retail trade and repair of motor vehicles and motorcycles	2574347	554709	997884	604972	1374874	689283	466217	74130
Transportation and storage services	18842	2058	7275	4681	8494	7858	6367	5510
Information and communication activities	13020	3394	2949	5475	5574	2287	1225	441
Real estate activities	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*
Professional, scientific and technical activities	34620	2616	7923	25144	397	658	30	57
Administrative and support service activities	35311	6583	29395	1088	*n/d*	*n/d*	*n/d*	*n/d*
Other activities	30829	2416	2020	350	6394	5027	*n/d*	*n/d*

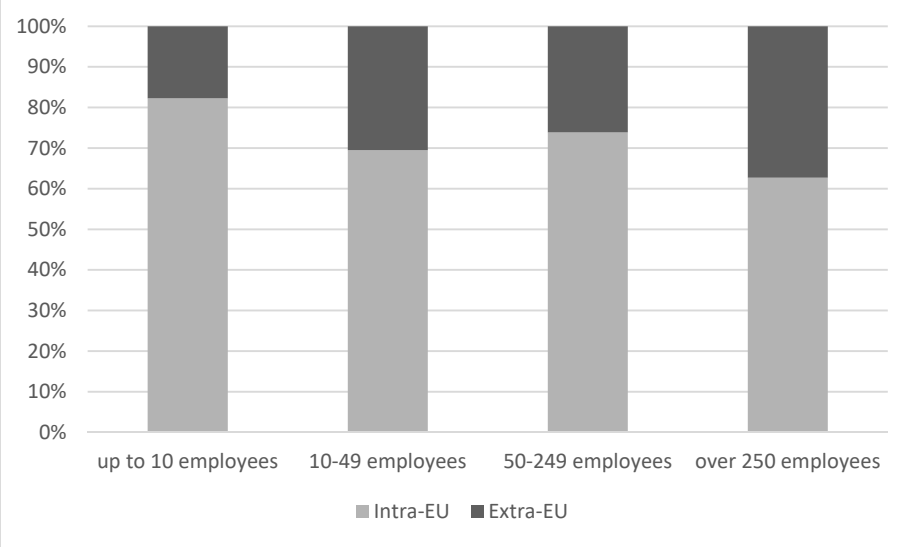
** n/d – No data; Source: Eurostat.*

Data on the large companies with more than 250 employees are scarce. However, the dominant role of the Manufacturing industry, which realizes almost all transactions in the segment of large companies, is clearly visible.

Figure 13 presents the distributions by direction of the transactions – in the EU and to third countries.

Figure 13

Distribution of the volume of export transactions, by direction of export and number of employees in the exporting enterprises, 2018



Source: Eurostat data.

According to the distribution of transactions by sector, the preferences of micro, small and medium-sized enterprises to realize export transactions mainly within the EU are clearly shown. The high concentration of micro-enterprises in the EU is noticeable. Their export transactions to other EU countries are over 80%. For small and medium-sized companies from the studied non-financial sectors, this concentration is about 70%. The large companies have a more balanced distribution of transactions with a ratio of about 60:40 in favour of the EU. These data show that the facilitations, provided by Bulgaria‘s membership in the EU, can be interpreted as an important determinant of the internationalization of SMEs.

The picture of the internationalization of the enterprises is also supplemented by the data on the number of exporting enterprises by sector and number of employees (Table 2).

Table 2

Exporting companies, by number of employees, direction and economic sectors, 2018 (number)

	1-9 employees		10-49 employees		50-249 employees		250+ employees	
Export direction / Economic sectors	intra-EU	extra-EU	intra-EU	extra-EU	intra-EU	extra-EU	intra-EU	extra-EU
Total all activities	13079	4376	4945	2305	1953	1209	380	326
Agriculture, forestry and fishing	392	92	212	59	44	16	*n/d*	*n/d*
Mining and quarrying	4	5	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*
Manufacturing	2102	741	2342	1106	1247	784	257	233
Electricity, gas, steam and air conditioning supply	20	14	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*
Water supply; sewerage, waste management and remediation activities	29	17	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*
Construction	241	47	112	43	54	31	4	5
Wholesale and retail trade and repair of motor vehicles and motorcycles	7735	2894	1750	823	438	264	49	36
Transportation and storage services	815	221	179	107	56	35	17	12
Information and communication activities	387	71	91	45	31	23	14	12
Real estate activities	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*
Professional, scientific and technical activities	785	129	86	42	15	18	4	6
Administrative and support service activities	226	20	56	15	*n/d*	*n/d*	*n/d*	*n/d*
Other activities	239	66	37	21	20	14	*n/d*	*n/d*

** n/d – No data; Source: Eurostat.*

The data on the realized turnover of the companies in the different sectors are compared with the volumes of exports. This ratio gives an idea of what part of the production of the enterprises is sold abroad.

In turn, the share of exports in the realized turnover can be calculated as:

$$P_{EXP} = \frac{Exp}{Tn} \tag{3}$$

where:

P_{EXP} – percentage of export
Exp – export
Tn – realized turnover

Table 3 presents the results of the calculations.

Table 3

Exports in the turnover of the companies, by number of employees, direction and economic sectors, 2018 (%)

	1-9 employees		10-49 employees		50-249 employees		250+ employees	
Export direction / Economic sectors	intra-EU	extra-EU	intra-EU	extra-EU	intra-EU	extra-EU	intra-EU	extra-EU
Total all activities	9.8	2.1	4.9	2.2	12.8	4.5	20.6	12.2
Agriculture, forestry and fishing	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*
Mining and quarrying	0.6	0.5	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*
Manufacturing	16.2	4.5	16.6	4.1	32.7	9.4	40.6	24.5
Electricity, gas, steam and air conditioning supply	4.5	0.3	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*
Water supply; sewerage, waste management and remediation activities	3.2	3.3	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*
Construction	0.3	0	0.2	0.1	0.4	0.1	0	0.3
Wholesale and retail trade and repair of motor vehicles and motorcycles	14.2	3.1	4.0	2.4	8.1	4.1	4.2	0.7
Transportation and storage services	0.8	0.1	0.3	0.2	0.4	0.4	0.3	0.3
Information and communication activities	1.1	0.3	0.2	0.4	0.5	0.2	0	0
Real estate activities	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*
Professional, scientific and technical activities	1.6	0.1	0.6	2.0	0.1	0.1	0	0
Administrative and support service activities	4.7	0.9	3.6	0.1	*n/d*	*n/d*	*n/d*	*n/d*
Other activities	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*	*n/d*

** n/d – No data; Source: Eurostat.*

It is clear that in the case of micro-enterprises, the biggest share of the realized export of the total trade turnover is in the Manufacturing industry (nearly 21%). The second place is for Trade sector (over 17% turnover from transactions abroad). The other represented non-financial sectors are less than 10% of the realized transactions abroad.

For companies with 10 to 49 employees, the situation is similar to the ranking of the sectors, but it is noticeable that in general, turnovers of foreign companies have a smaller share compared with micro-enterprises. The manufacturing industry stands out with over 40% of foreign transactions. The other sectors with available data show smaller shares compared to the shares of micro firms.

As expected, data for the large companies are almost completely missing. However, the dominant role of the Manufacturing industry is noticeable, with over 65% of sales abroad.

Some authors consider that the internationalization is an appropriate even necessary strategy for SMEs on a limited domestic market such as Bulgarian one, where the attempts to achieve

success are defined by their competitive performance (Ivanova, Georgieva, Kolarov, Shindarova, 2020).

Value added in export

The share of value added[6] in export is a measure of the importance of export for the Bulgarian economy. The data on the annual activity of companies are available in the NSI information databases. The next calculations are based on 2018 data.

The Percentage of value added (P_{VA}) in the realized turnover in the companies can be defined as the ratio:

$$P_{VA} = \frac{\sum VA}{\sum Tn} \quad (4)$$

where:

VA – value added
Tn – realized turnover

Table 4 presents the results of the calculations.

Table 4

Value added in the turnover of the companies, by economic sectors and number of employees, 2018 (%)

Economic sectors	1-9 employees	10-49 employees	50-249 employees	250+ employees
Total all activities	20	13	19	24
Agriculture, forestry and fishing	*n/d*	*n/d*	*n/d*	*n/d*
Mining and quarrying	22	21	33	55
Manufacturing	28	22	26	19
Electricity, gas, steam and air conditioning supply	37	9	5	31
Water supply; sewerage, waste management and remediation activities	19	11	36	62
Construction	17	21	26	23
Wholesale and retail trade and repair of motor vehicles and motorcycles	10	7	9	9
Transportation and storage services	19	15	24	59
Information and communication activities	40	38	61	56
Real estate activities	68	39		51
Professional, scientific and technical activities	41	32	55	75
Administrative and support service activities	37	26	50	76
Other activities	*n/d*	*n/d*	*n/d*	*n/d*

** n/d – No data; Source: Own calculation with NSI and Eurostat data.*

[6] Everywhere, "value added" means the value of the indicator "value added at factor cost". It includes gross income from operating activities after adjusting for operating subsidies and indirect taxes.

There is a tendency the companies to operate an average of 20% value added, with the exception of small companies with an average of 13%.

If we assume that the share of value added of export is analogous to the share of value added of total output (realized turnover), then the size of Value added in the exports (VA_{EXP}) can be calculated as:

$$VA_{EXP} = Exp.P_{VA} \quad (5)$$

where:

Exp – export

Table 5 presents the results of the calculations.

Table 5

Value added in the exports of the companies, by economic sectors and number of employees, 2018 (thousand EUR)

Economic sectors	1-9 employees	10-49 employees	50-249 employees	250+ employees
Total all activities	725009	388611	111274	3353785
Agriculture, forestry and fishing	*n/d*	*n/d*	*n/d*	*n/d*
Mining and quarrying	77	*n/d*	*n/d*	*n/d*
Manufacturing	89616	256003	971032	2480031
Electricity, gas, steam and air conditioning supply	22417	*n/d*	*n/d*	*n/d*
Water supply; sewerage, waste management and remediation activities	1368	*n/d*	*n/d*	*n/d*
Construction	1362	1313	3247	971
Wholesale and retail trade and repair of motor vehicles and motorcycles	319147	113768	191852	47566
Transportation and storage services	4044	1817	3848	6950
Information and communication activities	6540	3229	4822	938
Real estate activities	*n/d*	*n/d*	*n/d*	*n/d*
Professional, scientific and technical activities	15199	10743	578	65
Administrative and support service activities	15446	7984	*n/d*	*n/d*
Other activities	*n/d*	*n/d*	*n/d*	*n/d*

** n/d – No data; Source: Own calculation with NSI and Eurostat data.*

Through their exports, the micro-companies generate a total of at least 0.5% of the value added generated in Bulgaria, small companies – more than 0.4%, middle-sized companies – more than 1.2%, and large ones – over 2.7%. Should be taken into account that these values are minimal, since they are based only on the available data for the companies.

Conclusion

The analysis shows that the foreign trade activity of the Bulgarian companies is a key to achieving economic growth. Bulgarian economy keeps the established predominant export of raw materials. Also, Bulgaria is an exporter mainly of low value-added goods. In the recent years, there is a trend to increase the share of export of goods with higher value added. The study of the Bulgarian export in the period 2009-2019 shows that they are balanced in terms of their geographical structure. In the different years, the leading 5 main partner countries form between 43 and 56% of the total export of goods of Bulgaria.

At the same time, the export is highly sustainable regarding the main partner countries, as the latter remain unchanged throughout the studied period. A possible explanation could be the many foreign-owned companies in Bulgaria, and in particular their "sales" to parent companies abroad.

It has been found that Bulgarian exporting companies are over 22 000 in number. Concerning companies with up to 10 employees, Bulgaria is close to the average European level regarding the average amount of exports (238 000 EUR per year). The situation for companies with more employees is different. Concerning small companies with 10 to 49 and medium-sized companies with 50-250 employees, the average annual sales abroad are the lowest in the EU (respectively 560 000 EUR and 2.8 million EUR). There is a clear tendency of most Bulgarian foreign trade companies to carry out transactions mainly in other EU countries and less in third countries. It is also noticeable that in the general case, the share of exports in the turnover of the enterprises increases with an increase in the number of employees. There is a tendency for the companies to operate at an average of about 20% value added, with the exception of the small companies with an average of 13%. The calculations show that micro-enterprises with their exports form a total of at least 0.5% of the value added generated in Bulgaria. With their exports, small enterprises generate more than 0.4%, and the medium-sized enterprises – more than 1.2%.

References

Bobeva, D. (2020). Makroikonomicheski faktori za targovskite disbalansi [Macroeconomic factors for trade imbalances: the case of Bulgaria]. – In: Ikonomichesko razvitie i politiki realnosti i perspektivi. Mezhdunarodna nauchna konferentsia, posvetena na 70-godishninata na Instituta za ikonomicheski izsledvania pri BAN [Economic Development and Policies. Realities and Prospects. International scientific conference dedicated to the 70th anniversary of the Economic Research Institute at BAS]. Sofia: Academic Publishing House "Marin Drinov", pp. 207-217. [In Bulgarian]. ISBN 978-619-245-039-7.

Galabova, B., Nestorov, N. (2018). State and Trends of Bulgaria's Foreign Trade with Ores and Concentrates. – Economic Studies, N 1, pp. 109-140.

Galabova, B., Trifonova, B. (2018). Sustainable development and innovation potential of the mining companies. – Management and Sustainable Development, 2(69), ISSN 1311-4506.

Georgieva, D. (2019). Mandatory and voluntary R&D data disclosure: evidence from Bulgaria. – Academy of Accounting and Financial Studies Journal, 23(5), pp. 1-8. ISSN (print) 1096-3685, ISSN (online) 1528-2635.

Georgieva, S., Vasilska, M. (2019). Networking and Support: Determinants of the International Performance of Enterprises. – European Journal of Marketing and Economics, 2(3), pp. 48-57.

Ivanova, Y., Kolarov, K. (2020). External Determinants of SMEs' Internationalization and Performance in a Challenging International Environment. – Economy & Business, 14(1), pp. 130-143.

Ivanova, Y., Georgieva, S., Kolarov, K., Shindarova, K. (2020). Entrepreneurs' Characteristics as Determinants of the Internationalization of Bulgarian SMEs. – Yearbook of UNWE (2020), Publishing House – UNWE, pp. 9-27. ISSN (print) 1312-5486; ISSN (online) 2534-8949.

Kolarov, K., Ivanova, Y., Todorov, P. (2018). Role of Managerial Experience of Entrepreneurs in Choosing Approaches to Internationalization of Their Business. – In: Todorov, K., and Kolarov, K. (eds.). The International Entrepreneurship: Trends, Challenges, Achievements. Proceedings of the Eighth International Conference 6-9 June 2017, Varna, Bulgaria, Varna: Bulgarian Association for Management Development and Entrepreneurship, pp. 135-150.

Marinov, E. (2015). Vanshnotargovski otnoshenia mezhdu Evropeyskia sayuz i regionalnite integratsionni obshtnosti v Afrika [Foreign trade relations between the European Union and the regional integration communities in Africa]. Individual research project, ERI at BAS, 174 pp. [In Bulgarian]. ISBN 978-619-90568-0-6.

Tassev, A. (2012). Vanshnotargovskiyat stokoobmen i vanshnite pazari na Bulgaria. Istoria, politika i ikonomika, 1986-2008 [Foreign Trade and Foreign Markets of Bulgaria. History, Politics and Economy, 1986-2008]. Sofia: Academic Publishing House "Marin Drinov". [In Bulgarian].

Zlatinov, D. (2018). Validnostna hipotezata za eksportnoorientiran ikonomicheski rastezh v Bulgaria? Idva li vremeto na novprotektsionizam? [Validity Hypothesis For Export-Oriented Economic Growth In Bulgaria? Is the time of new protectionism coming?]. Sofia: Publishing House of VUZF "St. Georgi Bogoslov" pp. 211-220. [In Bulgarian]. ISBN 978-954-8590-53-2.