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## COMPETITIVENESS OF THE TEXTILE AND CLOTHING INDUSTRY IN BULGARIA AFTER THE EU ACCESSION AND IN TIMES OF COVID-19 PANDEMIC

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### ABSTRACT

The purpose of this paper is to analyse the changes in Bulgaria's competitiveness in the textile and clothing (T&C) industry after the European Union accession and in times of the coronavirus pandemic covering the period 2007-2020. In methodological terms the study uses various indicators including production value, employment, labour productivity, relative trade balance, revealed comparative advantage index, among others. Wherever possible the analysis is done in a comparative perspective benchmarking the performance of the sector in Bulgaria with that in Romania. The results show that the Bulgarian T&C industry has undergone a significant transformation in the last two decades increasing its productivity but being subject to significant jobs downsizing. While still competitive on the European market, with rising wages and production costs, the comparative advantages of the industry are gradually eroding. The coronavirus pandemic has hit the apparel subsector very hard while some textile producers which managed to shift their production to personal protective equipment items managed it successfully. However, this is a temporary solution. The T&C industry in Bulgaria is confronted with significant long-term challenges such as the green and the digital transformation, and the how it deals with them will determine the prospects of the sector.

**Key words:** *textiles and apparel industry, comparative advantages, trade balance, Bulgaria, Romania*

### INTRODUCTION

The textile and clothing (T&C) industry was at the core of the Industrial Revolution in Great Britain, boosting technological progress, international trade and industrialisation worldwide. Historically it has also been the first industrial sector in Bulgaria. The first factory in the Ottoman empire was established in Sliven back in 1834 starting a long tradition of textile

production. No matter it was not targeted as a priority industry it has seen an upward development during the years of planned economy. After the country started a process of transition to a market economy, it was among the few sectors that sustained the heightened international competition under the new conditions, accounting for a great share of the country's exports and manufacturing jobs in the 1990s and early 2000s (1). That development was largely driven by the European integration process giving tariff and quota-free access to the European Union (EU) market and the subcontracting and relocation practices of European garment companies.

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However, the competitive environment has changed as in 2007 Bulgaria became an integral part of the EU while in 2005 the Multi-Fibre Arrangement and its successor the Agreement on Textiles and Clothing, allowing developed countries to regulate imports by imposing quota restrictions and to discriminate between exporting countries, came to an end. The liberalization of the European market has led to a significant restructuring of the sector and loss of many jobs that was further accentuated by the 2008-09 global crisis (2).

Another external shock is the COVID-19 outbreak that swept the global economy in 2020 and has hit the T&C industry particularly hard. The pandemic has negatively affected the sector both through supply (production shutdowns, disrupted global supply chains, rising prices of essential raw materials) and demand side factors (social distancing and decrease in employment leading to reduction of non-essential goods consumption, subdued international demand). On the other hand, the strategic importance of the industry was demonstrated as textile and clothing companies proved to be essential to managing the COVID-19 pandemic. The safety of the first responders and the whole population depends on the industry products and besides that no cars, airplanes, machines or buildings can be built without textile materials (3). Therefore, preserving domestic textile industrial capabilities has a long-term significance for the Europe's open strategic autonomy and resilience of the industrial ecosystems.

Against this background, the objective of the paper is to analyse the evolution of Bulgaria's competitiveness in the T&C industry after the EU accession and in times of the pandemic. The research tasks are:

- to define competitiveness at a sectoral level and suggest indicators for its measurement.
- to provide an overview of the trends in development and status of the T&C industry in Bulgaria.
- to look at the dynamics of Bulgarian T&C exports, imports, and trade balance.
- to identify the T&C product groups with a positive relative trade balance.
- to determine whether Bulgaria has a comparative advantage in trade with T&C products on the European market.

- to check if the Bulgarian T&C industry has undergone a structural transformation towards high-value products.

## METHODS

Governments around the world for a long time have been concerned how to improve the competitiveness of their manufacturing industries in the face of growing international competition. Thus, industrial competitiveness has been very high on the agenda for both developed and developing countries that have elaborated thousands of various competitiveness enhancement strategies in the last 2-3 decades. Yet competitiveness remains a fuzzy concept with no commonly agreed definition and indicators for its evaluation.

One popular definition of competitiveness on a sectoral level is “the collective ability of firms in a particular sector to compete internationally” (4). According to McKinsey Global Institute competitiveness is the “capacity to sustain growth through either increasing productivity or expanding employment” (5).

When performing an impact assessment of new policy proposals, the European Commission relates sectoral competitiveness to productivity and its underlying determinants – “changes in the quality and quantity of inputs and technological progress —that is, a sector's propensity to innovate” (6). In a report written for the European Commission in the area of European competitiveness, the definition of competitiveness at a meso level refers to the analysis of the competitive strengths and weaknesses of an industry on the international market in relation to the same industry in other countries (7). An important distinction is made between two types of sectoral competitiveness – intra-sector (relates to competitiveness of different countries within a sector) and inter-sector (relates to competitiveness of a sector in comparison with other sectors within the same economy).

Based on the overview of the definitions, the following features of sectoral competitiveness can be inferred:

- competitiveness is a complex concept and cannot be measured with a single indicator.

- competitiveness of an industry that produces tradable goods is related to its ability to compete internationally.
- the utmost criterion of competitive performance is provided by the market and especially the international one.
- competitiveness is ultimately related to productivity.
- as a relative concept competitiveness analysis requires the industry's performance to be benchmarked against the same industry of other country/ies.

In line with the abovementioned definitions and salient features of competitiveness the following types of indicators have been chosen for evaluation of the competitiveness of the Bulgarian T&C industry:

- general indicators: number of enterprises and people employed, production value, investment.
- productivity indicators: apparent labour productivity, wage-adjusted labour productivity.
- trade indicators: dynamics of exports, imports, trade balance (exports minus imports and export-import ratio); Relative Trade Balance (RTB) - compares the trade balance of a particular product to the total volume of trade, exports plus imports with that product; Revealed Comparative Advantage (RCA) - compares the share of a given industry's exports in the analysed country's total exports with the share of the same industry's exports of a group of reference countries – in this case the EU; Export Unit Value (ExUV) – reflects the average unit price of a product and is calculated as the value of exports divided by the quantity; share of high-value products.

Next, it is important to define the T&C industry. For the presentation of the general and productivity indicators the Statistical Classification of Economic Activities in the European Community (NACE) is going to be used, while for the calculation of the trade indicators data based on the Standard International Trade Classification (SITC) will be utilized. As the T&C industry is heterogeneous, it is important to introduce the indicators for the two subsectors having different characteristics separately. While textiles are relatively capital-intensive and developed countries still have a

high market share, clothing is labour-intensive and developing countries are by far its major producers and exporters (8). The textile subsector is defined by NACE code C13 - Manufacture of textiles, while clothing by C14 - Manufacture of wearing apparel. Within the SITC the textile subsector covers division 65, while clothing - division 84.

For the purposes of a subsector's upgrading analysis the classification of UNIDO that splits product groups belonging to a given subsector into low-value and high-value products is going to be used. According to this classification created by calculating average global export unit values of every three-digit-level SITC product groups within the subsector and ranking them, the high-value product groups are:

- for the textile subsector: 652-cotton fabrics, woven; 653 - fabrics, woven, of man-made textile materials; 654 - other textile fabrics, woven; 656 - tulle, lace, embroidery, ribbons, trimmings
- for the clothing subsector: 841 - men's or boys' clothes, not knitted or crocheted; 842 - women's or girls' clothes, not knitted or crocheted; 845 - articles of apparel, of textile fabrics, whether or not knitted or crocheted, n.e.s., 848 - articles of apparel and clothing accessories of other than textile fabrics; headgear of all materials. (9)

For the purposes of comparative analysis of the sectoral performance, Romania has been chosen as a benchmark country. It is very suitable as a comparator country as it also features a large T&C industry that has undergone the same transformational processes with the same timing as the Bulgarian one – transition to a market economy and EU accession.

A major limitation of the analysis is the lack of up-to-date data on the general and productivity indicators that does not allow appraising the effects of the pandemic, however this is done through the trade indicators that cover the whole analysed period (2007-2020).

## RESULTS

The T&C industry is a typical low-technology (just one product group – SITC code 653 - Man-made woven fabrics is classified as medium-tech), footloose industry that is dependent on

low-wage levels which makes low-cost countries attractive manufacturing locations. With joining the EU, continuous economic development and raising living standards the competitive performance of Bulgaria and Romania in the sector has been declining.

In the year of EU accession 718 textile and 4911 apparel (predominantly micro- and small) enterprises operated in Bulgaria, while in 2018 their number has shrunk to 692 and 4379, respectively. The same trend of companies leaving the market throughout the period is observed in Romania. In 2007 the industry provided employment to over 168 thousand people in Bulgaria (20.4 thousand in textiles and 148 thousand in apparel production) accounting for over quarter of the manufacturing jobs in the country. In 2018 less than 100 thousand people work in the T&C industry (12.8 thousand in the textile subsector and 86.8 thousand in the apparel

subsector) representing less than 18% in the manufacturing employment. In 12 years the T&C industry has lost almost 69 thousand jobs in Bulgaria and over 128 thousand in Romania, with a drop in employment of 69% and 44% respectively (**Table 1**).

The production of textiles in Bulgaria has decreased over 2007-2018 and accordingly the subsector diminished its share in the national manufacturing production from 2.4% to 1.5%. While the value of apparel production increased, the subsector has also lost weight in the country's production, signifying a declining inter-sector competitiveness. This is also confirmed when looking at the data about the investments in the sector. In the apparel subsector they stagnated at a comparatively low level while in the textile subsector they have significantly declined – from 3.6 thousand euro per person in 2007 to 2.5 thousand euro per person in 2018.

**Table 1.** Main indicators of Bulgarian and Romanian textile and clothing industries in 2007 and 2018

	BULGARIA				ROMANIA			
	TEXTILES		APPAREL		TEXTILES		APPAREL	
	2007	2018	2007	2018	2007	2018	2007	2018
<b>Enterprises</b> - number	718	692	4911	4379	1858	1529	6197	5137
<i>share in manuf. (%)</i>	2.4	2.2	16.5	14.0	3.3	2.9	11.0	9.8
<b>Production value</b> (million EUR)	525.1	510.8	1113.2	1399.8	916.5	1453.1	2561.1	2136.2
<i>share in manuf. (%)</i>	2.4	1.5	5.0	4.2	1.6	1.6	4.5	2.3
<b>Persons employed</b> – (number in thousand)	20.4	12.8	148	86.8	40.6	32.8	248.9	128.4
<i>share in manuf. (%)</i>	3.1	2.3	22.5	15.6	2.8	2.7	16.8	10.4
<b>Investment per person employed</b> (thousand EUR)	3.6	2.5	0.7	0.7	4.4	3.6	1.7	0.9
<b>Apparent labour productivity</b> (thousand EUR)	5.5	9.7	3	6.7	5.5	12.1	4.2	7.7
<b>Wage adjusted labour productivity (%)</b>	209.1	148.5	157	133.4	136.5	142.7	117.2	117.7

Source: Eurostat

Whereas Bulgaria has been gradually withdrawing from its specialization in the T&C industry seeing its share in the country's gross value added and employment shrinking, that process was accompanied with a sharp upturn in

productivity. In the textile subsector apparent labour productivity has increased by more than 76% over 2007-2018, while in the clothing subsector the rise was over 123% for the same period. Bulgaria's

improvement in labour productivity was dwarfed by that of Romania, which managed to raise the gross value added per person employed from 5.5 thousand to 12.1 thousand euro in the textile production and from 4.2 thousand to 7.7 thousand euro in the clothing subsector. While Romania outperformed Bulgaria in terms of labour productivity growth, when taking into consideration differences in labour costs, wage adjusted labour productivity in the T&C industry in Bulgaria is higher (148.5% vs. 142.7% in textiles and 133.4% vs. 117.7% in clothing).

During the last decade Bulgaria's T&C industry export has been rather unsteady. The biggest drop (-15.4%) occurred in 2009 due to the contracted demand of Bulgaria's major trading partners

because of the global financial and economic crisis. A full recovery of the pre-crisis value of the exports happened only in 2015 (Figure 1).



Figure 1. Exports of textiles and clothing from Bulgaria (2007-2020, million EUR)

Source: Eurostat

Another blow to the industry was struck in 2020 by the COVID-19 pandemic. The unprecedented crisis hit the industry from two sides. First, the closure of the two main materials suppliers - China and Italy disrupted the global supply chains and the production capacity of enterprises. The rising prices of raw materials and transportation delays further contributed to the difficult situation of the sector. Next, it is the low consumer demand of goods that are non-essential that led to cancelled and reduced orders. Strict social distancing norms (restrictions on business meetings and live events), working from home, rising unemployment and lost incomes do not encourage the purchase of new clothes especially suits and dresses in the high prices segment. On the other hand, the pandemic

stimulated the demand for pyjamas and tracksuits, but these are niche goods and it is not possible for the whole industry to rely on their production only (10).

Altogether the pandemic has resulted in a 9.2% y-o-y decline in the Bulgarian T&C exports in 2020. In fact, the exports of textiles have increased by 9.7% as certain Bulgarian SMEs were among the first to switch to the production of protective masks meeting the needs of the response to the health crisis. However, Bulgaria is largely specialized in the production of apparel. Therefore, the slump in the consumer demand for clothing and accordingly the drop in its exports (by 15.5%) could not be compensated by the increased demand for personal protective equipment.



Figure 2. Imports of textiles and clothing to Bulgaria (2007-2020, million EUR)

Source: Eurostat

The imports of T&C to Bulgaria largely followed a similar trend as the exports. The major difference is that textiles dominate in imports whereas clothing dominates Bulgarian exports. The COVID-19 pandemic has resulted in a sharp decline of the imports of both clothing and

textiles and in 2020 the drop was 11%. The higher decrease in imports than in exports contributed to maintaining a positive trade balance in the industry which is characteristic for Bulgaria throughout the whole analysed period (11) (Figure 2).

**Table 2.** Trade balance and export/import ratio of Bulgaria and Romania in trade with T&C (2007-2020, million EUR)

			2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>BULGARIA</b>	<b>TEXTILES</b>	X-M	-617	-527	-419	-481	-546	-555	-564	-574	-561	-535	-523	-534	-510	-355
		X/M	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5
	<b>CLOTHING</b>	X-M	1030	907	790	795	938	882	930	931	903	939	874	818	768	619
		X/M	3.4	3.2	3.3	3.2	3.6	3.4	3.3	3.0	2.9	2.7	2.5	2.4	2.2	2.1
<b>ROMANIA</b>	<b>TEXTILES</b>	X-M	-1994	-1701	-1261	-1359	-1545	-1534	-1555	-1675	-1818	-1807	-1643	-1576	-1555	-1521
		X/M	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5
	<b>CLOTHING</b>	X-M	2426	1903	1502	1624	1806	1758	1748	1797	1663	1394	1082	855	517	-17
		X/M	4.3	3.2	3.2	3.3	3.2	3.1	3.1	2.9	2.6	2.1	1.7	1.5	1.3	1.0

Source: Eurostat

As trade balance is largely used to measure the sectoral competitiveness, it is instructive to see how it has evolved after the EU accession of Bulgaria. While the country has maintained higher exports than imports in the clothing subsector leading to a positive trade balance for the whole T&C industry, in the textiles subsector the trade balance has always been negative. The dynamics of the trade balance (also the export/import ratio) however has been different for the two subsectors. In 2007 the textile subsector had a negative trade balance of -617 million euro (an X/M ratio of just 0.3) but in 2020 it improved to -355 million euro (a double increase of the X/M ratio to 0.6). The clothing subsector had a positive trade balance of over 1 billion euro in 2007 (exports being 3.4 times higher than imports), while in 2020 it declined to 619 million euro (exports exceeding imports by 2.1 times). The same trend of improving the trade competitiveness in textiles while losing it in clothing is observed in Romania (**Table 2**).

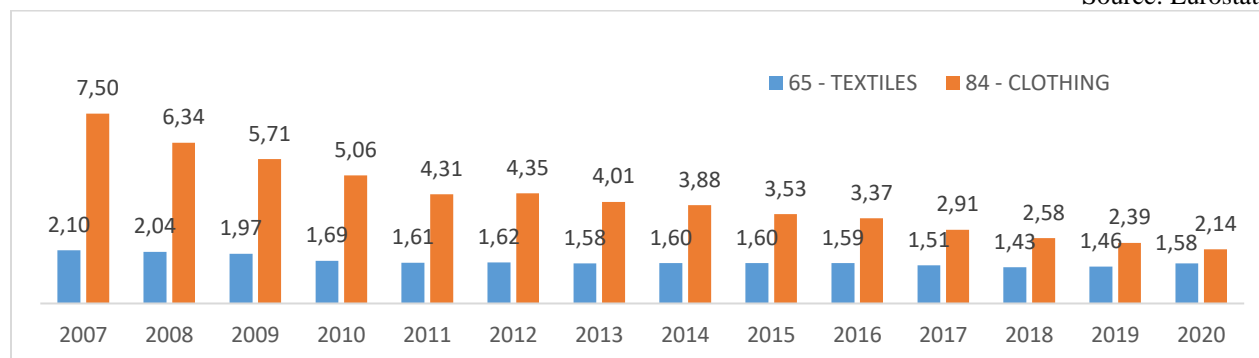
Next, we need to see which product groups in the Bulgarian T&C industry have a positive trade balance and how it has changed. Within the textile subsector the only product group with consistently higher exports than imports has been textile yarn (SITC group 651). All the rest have negative trade balance (X/M ratio < 1). An interesting case is SITC group 658 “Made-up articles, of textile materials, n.e.s.”. It has gradually reduced its positive trade balance and in 2018 it turned into negative. Then, the COVID-19 pandemic stimulated the foreign demand and exports of this product group that contains facemasks and in 2020 its relative trade balance index again turned positive (0.13). The same applies for product group SITC 846 “Clothing accessories, of textile fabrics”. All the rest product groups within the clothing subsector (apart from SITC 848 “Articles of apparel, clothing accessories, excluding textiles” that has had consistently negative RTB) have maintained a positive trade balance albeit declining (**Table 3**).

**Table 3.** Relative trade balance of Bulgaria in trade with T&C (2007-2020)

	2007	2010	2015	2018	2019	2020
<b>65 - TEXTILES</b>	<b>-0.48</b>	<b>-0.46</b>	<b>-0.40</b>	<b>-0.36</b>	<b>-0.35</b>	<b>-0.26</b>
651 - TEXTILE YARN	0.13	0.24	0.18	0.20	0.22	0.20
652 - COTTON FABRICS, WOVEN	-0.78	-0.85	-0.73	-0.76	-0.72	-0.72

653 - FABRICS, WOVEN, OF MAN-MADE TEXTILE MATERIALS	-0.72	-0.78	-0.65	-0.57	-0.49	-0.53
654 - OTHER TEXTILE FABRICS, WOVEN	-0.69	-0.69	-0.78	-0.80	-0.76	-0.71
655 - KNITTED OR CROCHETED FABRICS	-0.55	-0.77	-0.72	-0.74	-0.73	-0.70
656 - TULLES, LACE, EMBROIDERY, RIBBONS, TRIMMINGS	-0.90	-0.88	-0.60	-0.53	-0.57	-0.56
657 - SPECIAL YARNS, SPECIAL TEXTILE FABRICS	-0.77	-0.66	-0.52	-0.32	-0.24	-0.16
658 - MADE-UP ARTICLES, OF TEXTILE MATERIALS, N.E.S.	0.32	0.21	0.19	-0.04	-0.18	0.13
659 - FLOOR COVERINGS, ETC.	-0.35	-0.14	-0.14	-0.17	-0.37	-0.28
<b>84 – CLOTHING</b>	<b>0.54</b>	<b>0.52</b>	<b>0.49</b>	<b>0.41</b>	<b>0.38</b>	<b>0.36</b>
841 - MEN'S CLOTHING OF TEXTILE FABRICS, NOT KNITTED	0.68	0.62	0.64	0.54	0.53	0.51
842 - WOMEN'S CLOTHING OF TEXTILE FABRICS, NOT KNITTED	0.77	0.72	0.65	0.57	0.53	0.48
843 - MEN'S OR BOYS' CLOTHING, KNITTED OR CROCHETED	0.52	0.53	0.52	0.27	0.12	0.20
844 - WOMEN'S CLOTHING, KNITTED OR CROCHETED	0.45	0.50	0.54	0.47	0.41	0.43
845 - ARTICLES OF APPAREL, OF TEXTILE FABRICS, N.E.S.	0.51	0.47	0.35	0.32	0.33	0.28
846 - CLOTHING ACCESSORIES, OF TEXTILE FABRICS	-0.07	-0.02	-0.05	-0.06	-0.04	0.23
848 - ARTICLES OF APPAREL, CLOTHING ACCESS., EXCL. TEXTILES	-0.54	-0.51	-0.46	-0.10	-0.12	-0.26

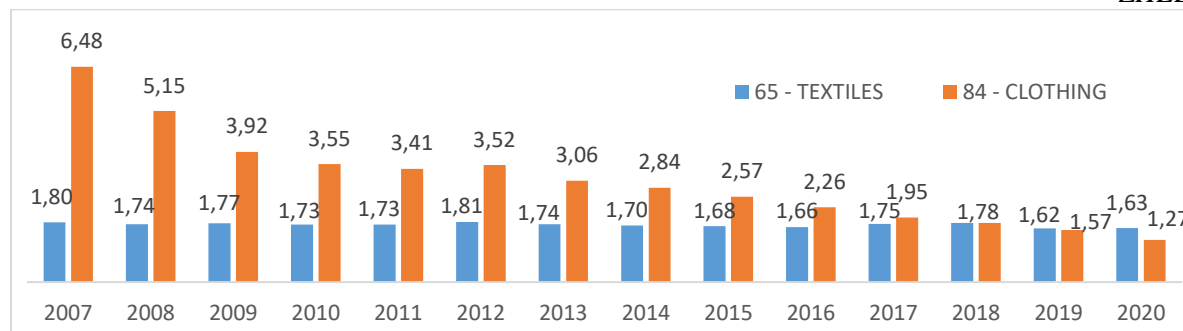
Source: Eurostat



**Figure 3.** Revealed comparative advantages of Bulgaria in trade with T&C on the Single European market (2007-2020)  
Source: own calculations based on Eurostat data

The great majority of Bulgarian exports of textiles (74.5% in 2019) and clothing (94% in 2019) are directed to the EU. It is therefore instructive to check how the competitiveness of the industry changed on the Single European Market. To do that we use the RCA index with a reference group the EU. The data on **Figure 3** show that Bulgaria has been progressively decreasing the strength of its comparative advantages in both textiles and clothing. When the country joined the EU in 2007 it was highly specialized in clothing on the EU market – the value of the RCA index used to be as high as 7.5.

In 13 years it has declined to 2.14. The RCA index for textiles has also significantly diminished its value – from 2.1 in 2007 to 1.58 in 2020. This is in line with the expectations – as the country develops it gradually loses its competitiveness in low-tech, labour-intensive industries. A similar picture is observed in Romania (**Figure 4**). The main difference is that in the end of the period textiles retained a higher value of RCA than clothing as the country is consistently withdrawing from specialisation in the latter subsector which is more labour-intensive than the former.



**Figure 4.** Revealed comparative advantages of Romania in trade with T&C on the Single European market (2007-2020)  
Source: own calculations based on Eurostat data

Another aspect of competitiveness worth exploring is related to the quality of the exported product, commonly measured by Export unit value (ExUV). The higher quality allows a higher price without losing the market, hence is a necessary precondition for producers in countries

with rising production costs to stay competitive (11). The ExUV of textile and clothing products from Bulgaria have increased substantially from 2007 to 2020, but in comparison with Romania there is a significant gap (Table 4).

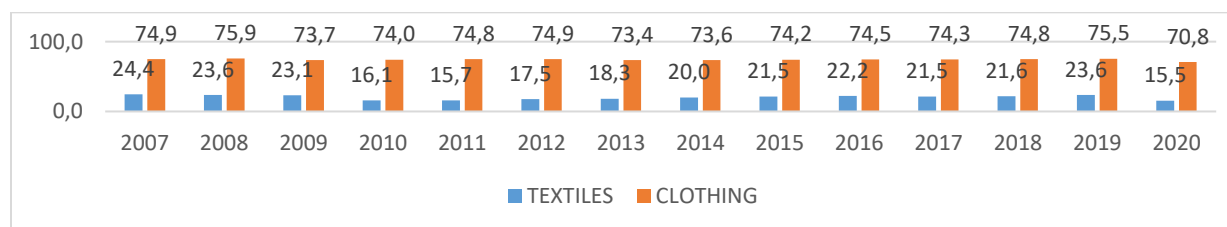
**Table 4.** Export unit values in trade with T&C of Bulgaria and Romania (2007-2020, EUR/100 kg)

	BULGARIA				ROMANIA			
	2007	2013	2019	2020	2007	2013	2019	2020
<b>TEXTILES</b>	514	600	613	643	546	711	827	836
<b>CLOTHING</b>	1764	2385	2655	2801	2590	3201	3953	4202

Source: own calculations based on Eurostat data

Finally in our analysis, we are going to see whether upgrading towards exports of higher-value products within the T&C industry has occurred throughout the 2007-2020 period. Data from Figure 5 show that within the clothing subsector Bulgaria has been predominantly specialized in high-value garments with their share hovering around 75%. The COVID-19

pandemic in 2020 resulted in a significant drop in their share to 70.8% as these were the products most negatively affected by the ensuing economic crisis. The textile subsector which has been dominated by lower value products has further downgraded because of the pandemic. While in 2007 the share of high-value textile products in Bulgaria was 24.4% in 2020 it dropped to 15.5%.

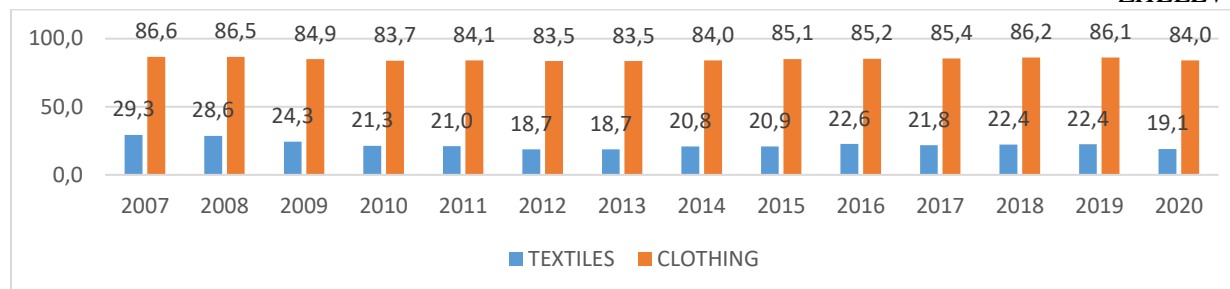


**Figure 5.** Share of high-value products in T&C exports of Bulgaria (2007-2020, %)

Source: own calculations based on Eurostat data the share of high-value clothing in 2020 is 84% (by over 13p.p. higher) while that of textiles is 19.1% (by 3.6 p.p. higher) (Figure 6).

Similar trends can be discerned in Romania. However, in comparative terms the Northern neighbour of Bulgaria performs much better as





**Figure 6.** Share of high-value products in T&C exports of Romania (2007-2020, %)

Source: own calculations based on Eurostat data

## CONCLUSION

The T&C industry has always been an important sector in Bulgaria's economy, playing a significant role in the social and economic development of many regions across the country. It provides jobs to almost 100 thousand people and is a key exporting industry accounting for over 6% of the national merchandise export in 2020. Furthermore, it consistently records positive trade balance bringing in foreign exchange in the country. In 2020 the positive trade balance in the industry had a value of about 264 million euro.

Yet, in dynamic terms, after Bulgaria's accession to the EU, the T&C industry has been losing its competitiveness. While managing to significantly boost its productivity, when adjusted to increasing wage levels it has been on a decline. Bulgaria still possesses a comparative advantage in the T&C industry on the EU market but relying on low production costs is no longer a possible strategy. Even before the coronavirus outbreak the industry has been losing the inter-sector competition with other industries that have been expanding faster. Thus, the share of the T&C industry in Bulgaria's manufacturing production, employment and exports have been in decline. Similar processes have occurred in the Romanian T&C industry. However, in Romania the productivity has grown faster (allowing for higher wages), products have been positioned in higher price segments and the share of high-value garments and textiles in exports exceeds the Bulgarian one.

The COVID-19 pandemic has hit the industry very hard further catalysing the trend. This applies mainly to the garment producers which have faced a slump in the demand of their

products, shrinking turnovers and serious bankruptcy risks. Flexible textile producers which managed to shift their production lines to personal protective equipment have managed to weather the storm much more smoothly.

In a post-pandemic world, the T&C industry in Bulgaria and Romania faces several challenges and the way it responds will determine the development prospects of the sector. First and foremost, it is the strong environmental imprint of the industry that puts it under increasing global pressure for stricter environmental compliance. Reducing the use of resources and increasing circularity of the production processes will be crucial in the forthcoming green transition of the industry. Next, the industry confronts shortage of workers due to mass emigration and ageing population in both countries. Digitising business operations and reskilling and upskilling of the workforce is necessary to respond to this challenge. Finally, it is increasingly less possible to withstand the competition with the production of simple products. Investing in development of new materials and product innovation and adding higher value is a must to stay competitive on the international market.

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