EAST-WEST
Journal of **Economics and Business**
Vol. XV – 2012, No 1 & 2

BULGARIA'S EXPORT COMPETITIVENESS BEFORE AND AFTER EU ACCESSION

Paskal Zhelev[1]
Tzvetomir Tzanov[2]
UNIVERSITY OF NATIONAL AND WORLD ECONOMY

Abtract

The paper gives an insight to the country's export competitiveness in the framework of EU accession as the analysis covers the period 2002-2009. The results bear evidence of a low export performance in terms of diversification, factor intensity and technological sophistication and a significant lagging behind countries like Hungary, Slovakia, and in certain fields Romania. It is mostly attributed to low-grade sector specialization. The integration within the EU so far has not accelerated technological catch-up. For instance, recent evidence indicates unexpected export growth in traditional industries as Bulgaria overwhelmingly remains steadily anchored in low value-added competition on international markets.

Keywords: Export competitiveness, Revealed comparative advantage, Export sophistication, European integration, Industry studies: Manufacturing

JEL Classification: F14, F15, L6, 014

1 E-mail: paskal@gbg.bg
2 E-mail: tzanov@unwe.eu

Introduction

Nowadays in the conditions of ever increasing globalization of the world economy, the fully-fledged integration in world and regional economic alliances has increasingly higher importance for the direction and pace of economic development of small open economies, as the case of Bulgaria. The benefits of economic integration and active participation in the international division of labour have been well-grounded in theory for quite a long time. Specifically these include static effects ensuing from exploiting comparative advantage and improved allocation of scarce resources, as well as dynamic effects derived from higher competition, greater economies of scale, the dissemination of knowledge and technological progress. In fact the EU accession process has significantly contributed to macroeconomic stabilization, trade openness, increased flow of foreign direct investment, improved legal and institutional framework that have been key drivers of economic success of the New member states of the EU during the last decade. The enlargement helped further unleash the growth potential and increase the resilience of the European economy by deepening economic integration, fostering more efficient division of labour and boosting competitiveness of the EU as a whole (European Commission, 2009). But have these positive effects been distributed evenly across all the integrating countries? Has Bulgaria managed to take advantage of the gains associated with full EU membership (increased investor's interest, knowledge transfer, financial support through the Structural funds, etc.) to modernize its economy and to align its production structure with those of the more advanced old members?

As of 2007 Bulgaria has become full member of the EU, and thus the past several years present an opportunity of investigating the impact of European integration on the country's competitive positions. The purpose of the paper is namely to analyze Bulgaria's export competitiveness before and after the EU accession through foreign trade performance stressing on exports diversification, structural divergences with intra-EU import structure, their technological complexity and factor content illustrated by a case study of a particular labour-intensive export-orientated national industry.

2. Export competitiveness concept and previous studies on transition economies

First we need to specify what our notion of competitiveness is, as a large number of concepts of competitiveness exist. Competitiveness, unlike comparative advantages, has not been defined rigorously in the early economic literature. Thus, over time and after many attempts of definition, it has become a somewhat

ambiguous concept. Some authors use the term synonymously or in a similar way as comparative advantage, others view it as an economy-wide characteristic.

In the present paper we use the trade approach to competitiveness which is particularly helpful when we analyze small open economies. The OECD definition of competitiveness (1997) as a *country's ability to sell goods under free and fair conditions in global markets while simultaneously maintaining and expanding the real income of its people over a long term* is relevant. Similar definition of competitiveness referring to export success gives Markusen (1992). In the trade approach to competitiveness the subject of research is foreign trade performance, especially the structure of exports of a given country. For small economies export competitiveness is essential for promoting economic development and prosperity in the global world. Though some economists view competitiveness as something experienced only at the micro level (Krugman, 1996), since firms but not countries compete in the global market, locations undeniably exert influence on firm-level competitiveness through natural endowments, human capital, market access, institutions, etc. Just as a firm's competitiveness can be measured by its participation in the market or by growth of its sales, the competitiveness of a country is often identified with the performance of its exports. The dynamism and composition of exports may help explain the conditions under which firms operate and the difficulties that they confront. Exports are an important diagnostic tool that can help signal whether more fundamental conditions in the economy are right (Farole, 2010). Nowadays the results and changes of foreign trade are the best way to evaluate capabilities of national companies to compete in an open global economy.

Various indicators to assess export competitiveness are being used in economic literature. Among the most common are the *volume* and *growth* of exports, the *diversification* of exports, and the *sophistication* of exports.[3] In the context of these indicators changes connected with real value growth of exports and decreased volatility have been evaluated as positive, as well as reduced concentration of exports. Thus, resulting in the creation of comparative advantages in sectors with high value added, in the withdrawal from specialization in resource and labour intensive sectors with low productivity, enhancement of the technological sophistication of exports, and consequently upgrading export structure in line with the contemporary trends in the international division of labour.

Using trade indicators to assess competitiveness of transition economies from Central and Eastern Europe (CEE) has been among the widest used approaches. This is a result of the availability of comparable international trade statistics and the notion that competitiveness is adequately reflected in foreign trade performance

[3] Farole, Th., et al. (2010) Analyzing Trade Competitiveness – A Diagnostics Approach, The World Bank, Washington.

of small open economies. The analyses covered different time periods after 1989 with three countries in focus: the Czech Republic, Hungary and Poland (CEE-3). Slovakia and Slovenia (known as CEE-5 when grouped together with the CEE-3) and Bulgaria and Romania (CEE-2) (known as CEE-7 together with the previous groups) were included less frequently.

In the trade approach, various versions of the Revealed Comparative Advantage (RCA) index have been derived and the intensiveness of use of production factors has been frequently analysed. Assessments of levels and dynamics of CEE competitiveness with the use of the RCA index were intended to demonstrate changes in the countries' specialisation on the EU market.

Havlik (1998) investigating the period 1989 – 1995 found out that Hungary's trade restructuring seems to have been the most pronounced of all CEECs. His analysis largely confirms the theoretical expectations for the emerging trade specialisation patterns of CEECs: relatively abundant labour and energy, as opposed to relative scarcity of capital, of R&D as well as of skilled labour.

Borbely (2004) found out that Poland's export specialization was in sectors of low and medium R&D intensity, the Czech Republic both in medium and high R&D intensive sectors, while Hungary specialized mostly in high technology products.

Landesmann (2002) confirms Hungary's exceptional progress in specialisation changes and notes the substantial progress achieved by the Czech Republic and Slovenia. While Poland occupies a middle position among CEECs, Bulgaria and Romania seem to be stuck in a specialization profile typical for a less developed economy with high competitive export gains in labour-intensive industries (which require mainly low-skill labour) whereas their exports of technology-driven industries are minimal.

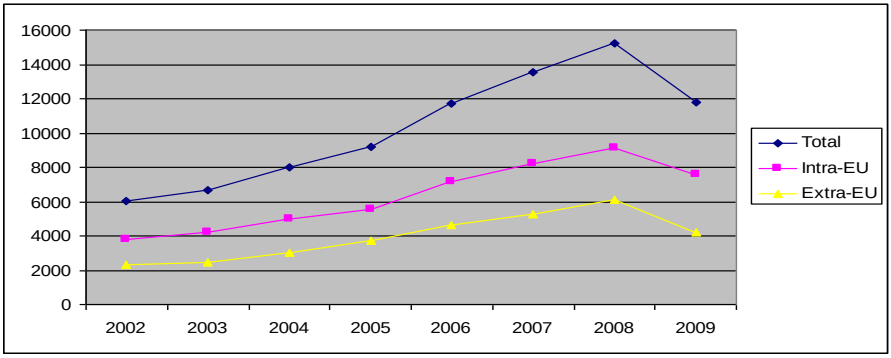
In a more recent paper Landesmann and Woerz (2006) show that over time most CEECs' specialisation in low tech and medium-low tech industries disappeared and the competitiveness in medium-high tech industries strengthened, upgrading their export structure. At the same time, Bulgaria, Romania and Croatia show strong export specialisation in the low tech and – to a lesser degree – the low-medium tech areas and persistent, very strong deficits in the high tech areas, while there is some reduction of deficits in export structures in the medium-high tech areas. Hence, much more gradual upgrading in export structures is visible for these countries as compared with CEE-5.

3. Bulgaria's exports – value and growth during the period 2002 – 2009

In order to assess the impact of Bulgaria's EU accession on its export competitiveness we shall look at the dynamics of Bulgarian exports in the years before the full membership (2007) and the years for which data is available upon entrance to the EU. For a starting point of our analysis we chose 2002 – *the year*

when Bulgaria was acknowledged to be a functioning market economy and the trade liberalization process with the EU had been largely finished.

Figure 1. Bulgaria's exports during 2002 – 2009 (at current prices, in thousand euros)

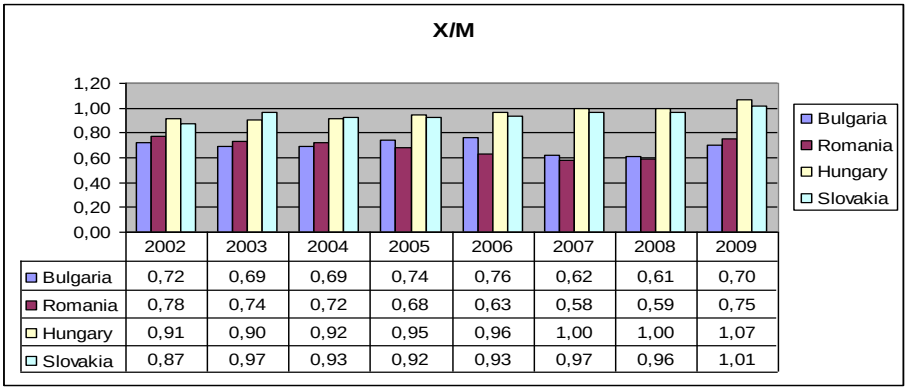


Source: Eurostat, External Trade Database

Data in Fig.1 indicates constant increase of Bulgarian exports during the period 2002- 2009, except for the year 2009 when there was a substantial contraction bringing down the value of exports to 2006 levels. The heavy drop of Bulgaria's exports is mainly attributed to the decreased demand in main trading partners due to the effects of the global financial and economic crisis. However, during the first two years of full EU membership, Bulgaria's exports have registered significant increase showing that the accession process has had a positive effect on the performance of Bulgarian exports firms. Moreover, the dynamics of Bulgaria's exports to third countries follows the dynamics of exports to the EU, implying that there is no "trade diversion" effect due to the adoption of the Common Trade Policy.

The 10% positive compound growth rate of exports for the period 2002-2009 alone is not an adequate indicator of export competitiveness. We have to check to what extent the Bulgarian export flows pay off the import needs of the economy. The export – import ratio of Bulgaria throughout the investigated period has a maximum value of 0.76. That means that for a prolonged time Bulgaria's export covers just about 2/3 of the foreign demand in the country. Bulgaria's negative trade balance, which proves to be a chronic issue, is an indicator for low export competitiveness of the economy and signals significant structural problems.

Figure 2. Export/Import ratio in foreign trade of Bulgaria and selected countries, 2002-2009



	2002	2003	2004	2005	2006	2007	2008	2009
Bulgaria	0,72	0,69	0,69	0,74	0,76	0,62	0,61	0,70
Romania	0,78	0,74	0,72	0,68	0,63	0,58	0,59	0,75
Hungary	0,91	0,90	0,92	0,95	0,96	1,00	1,00	1,07
Slovakia	0,87	0,97	0,93	0,92	0,93	0,97	0,96	1,01

Source: Eurostat, External Trade Database

Unlike Bulgaria, the more advanced countries from Central and Eastern Europe such as Slovakia and Hungary, due to higher export competitiveness enjoy a balanced foreign trade position.

4. Bulgaria's export diversification and similarity with EU's import structure

Export diversification – both in terms of products and markets – is strongly associated with economic growth (Hesse, 2009), particularly for underdeveloped countries. This positive link between diversity and long-run growth accrues from reduced volatility in output that would otherwise result from the impact of external shocks on concentrated export basket, as well as from the increased potential for generating spillovers.

In terms of markets Bulgarian exports are low diversified. In 2008 the top six major partners (Greece, Germany, Turkey, Italy, Romania and Belgium) accounted for 49% of exports, while in 2009 their share was already 51.7%. The low export diversification across partners causes high dependence on the economic juncture in those countries.

To measure the product concentration of Bulgaria's exports we use the export diversification index. It tells us the degree to which the country's exports are dispersed across different economic activities. It is calculated as:

$$DX_j = \frac{\sum_i \left| h_{ij} - h_i \right|}{2}, \qquad (1)$$

where *hij* is the share (%) of product *i* in total exports of country *j* to the EU*; hi* is share (%) of product *i* in total intra-EU exports. Values range from 0 to 100. A value of zero indicates that the export pattern exactly matches the EU average. Higher values indicate greater dependence on a small number of products.

Table 1. Export diversification index of Bulgaria, Romania and Hungary (in trade relations with the EU, according to 3-digit SITC, selected years)

Country	**2002**	**2007**	**2008**	**2009**
Bulgaria	58.58	50.75	49.15	50.27
Romania	61.48	47.85	44.32	43.49
Hungary	39.34	35.15	34.39	36.97
Slovakia	40.73	38.31	37.47	39.42

Source: Eurostat, External Trade Database, own calculations

High export diversification reduces the vulnerability of an economy to external trade shocks. On the other hand, high concentration in few commodities brings serious economic risks and makes a country vulnerable to volatilities of the international business cycle. Compared to Hungary, Slovakia and Romania, Bulgaria is at a disadvantaged position as its exports to the EU are much more concentrated in a few groups of products. During the integration process Bulgaria managed to diversify to a certain extent its export bundle, but its northern neighbour Romania, though starting from a lower position, gradually got ahead of Bulgaria as per that indicator. Bulgaria also lags far behind, compared with Hungary and Slovakia,.

As a next step we are analyzing how well the export profile of Bulgaria matches the import profile of the EU. Typically one wishes to match home country exports with its major trading partner imports. If the export structure of Bulgaria is becoming more compatible with EU's import structure, this implies higher export competitiveness of the country.

Table 2. Intra-EU import structure according to SITC (average for 2002-04 and 2007-09, %)

SITC *Rev.3*	Imports from Bulgaria		Imports from Romania		Imports from Slovakia		Imports from Hungary		Intra-EU imports	
	2002-2004	**2007-2009**	**2002-2004**	**2007-2009**	**2002-2004**	**2007-2009**	**2002-2004**	**2007-2009**	**2002-2004**	**2007-2009**
0+1 Food and beverages	8.2	10.9	2.3	4.4	3.1	3.9	5.5	6.8	8.8	9.3
2+4 Crude materials	8.9	13.1	7.9	7.6	9.6	8.0	3.6	4.7	7.4	10.2
5-8 Industrial products	80.4	75.8	89.6	87.8	86.7	87.1	90.1	86.7	81.6	79.4
5 Chemical products	4.2	5.3	3.0	4.4	5.7	4.7	5.4	7.5	14.7	16.0
6 Manufactured goods classif. by material	26.2	28.8	15.8	18.4	25.1	20.2	10.2	10.2	16.0	16.3
7 Machinery and transport equipment	12.7	17.5	23.6	39.6	42.7	51.9	62.9	60.5	39.7	36.6
8 Miscellaneous manuf. Articles	37.3	24.3	47.2	25.5	13.1	10.3	11.6	8.5	11.2	10.6

Source: Eurostat, External Trade Database, own calculations

As evident from table 2 the share of category 7 "Machinery and transport equipment" in Bulgaria's export to the EU (17.5%) is over two times lower than the corresponding share of intra-EU import average for the 2007-09 period. At the same time, the share of category 6 "Manufactured goods classified by material" and category 8 "Miscellaneous manufactured products" is respectively 1.8 and 2.3 times higher in Bulgaria's export to EU than the share of those categories in total intra-EU import. Though there is a trend of a gradual positive change in recent years, the data exhibit significant structural divergence between Bulgaria's export to the EU and the intra-EU import. This does not permit significant intra-industry and intra-product specialization and lasting production cooperation between Bulgarian and EU firms.

The structural divergence of Bulgaria's exports with intra-EU's imports is much more pronounced in comparison with Romania – a country which accompanied Bulgaria in the European integration process and was lagging behind for a long time in its pre-accession preparation. The growth of "Machinery and transport equipment" in Romania's exports is remarkable, reaching a share of 40%. This is achieved at the expense of other products with lower level of processing and is in line with the experience of the more advanced CEE countries from the first wave of the fifth EU enlargement. Despite the positive trend of increase, the share of this sector producing high added value in Bulgaria's exports is over two times lower compared to Romania. The lagging behind Slovakia and Hungary is even more dramatic – they have respectively 3 and 3.5 times higher share of the sector in their total exports to the EU. According to some experts' evaluations the export structure of some of the CEE countries is 15 -20 years ahead, while those of the 15 most advanced EU countries are 40-50 years ahead of Bulgaria's export structure (Angelov, 2005).

In order to get a clearer picture of the competitiveness of Bulgarian export products on the EU market we shall turn to a more disaggregated level of the SITC. Table 3 shows the top 10 commodities of Bulgaria's export bundle to the EU, which together account for more than 37%. It is evident that most of the top performers in Bulgaria's exports come from the metallurgy, apparel, textiles and footwear industries. All these commodities share a common feature – low level of processing, low technological sophistication, high intensity of unskilled relatively low paid labour.

Table 3. Top 10 export commodities of Bulgaria to the EU, 2007 to 2009

SITC code	3-digit heading of SITC rev.3	Value (million Euro)			Share in total exports to the EU (%)
		2007	**2008**	**2009**	**2007-09 average**
All commodities		8219.9	9118.1	7595.3	100.00
682	Copper	871.4	1142.0	649.0	10.68
334	Petroleum oils, other than crude	397.1	410.1	305.7	4.46
842	Women's or girls' coats, jackets, suits, trousers, shirts, dresses, skirts, not knitted or crocheted	390.4	366.9	312.8	4.29
841	Men's or boys' coats, jackets, suits, trousers, shorts, shirts, not knitted or crocheted.	341.6	320.9	239.4	3.62
845	Articles of apparel, of textile fabrics, whether or not knitted or crocheted, n.e.s.	288.1	261.5	241.7	3.17
673	Flat-rolled products of iron or non-alloy steel,	309.3	270.0	87.0	2.67
844	Women's or girls' coats, jackets, suits, trousers, shirts, dresses, skirts, not knitted or crocheted	229.6	196.5	187.4	2.46
351	Electric current	136.0	202.6	175.3	2.06
851	Footwear	175.2	160.0	143.3	1.92
821	Furniture and parts thereof	162.0	154.7	137.7	1.82

Source: Eurostat, External Trade Database, author's calculations

Having a high concentration in such low value added commodity groups and relying on them to drive the economic growth of the country puts the catching-up process in a tough situation.

5. Factor content and technological complexity of Bulgaria's exports to the EU

A common tool for analyzing trade patterns are the *revealed comparative advantage indices* (RCA), pioneered by Balassa (1965) who assumed that the true pattern of comparative advantage can be observed from post-trade data. These indices allow us to trace and quantify the change in specialization of Bulgaria over

the period of 2002 – 2009 relative to that of the rest of the EU. Accordingly, revealed comparative advantage is defined as:

$$RCAi=(xij/Xj)/(xieu/Xeu), \quad (2)$$

where *xij* is exports of commodity i by country j to the EU, *Xj* is total exports of country j to the EU,
xieu is intra-EU exports of commodity i, and *Xeu* is total intra-EU exports. The comparative advantage is "revealed" in the sense that the specialization of a country in exports (the numerator) is compared to a group of countries' specialization in that particular good. A country enjoys a revealed comparative advantage when its degree of export specialization is greater than that of the group of countries (i.e., RCA>1). The country demonstrates a disadvantage when its degree of specialization is less than the corresponding ratio for the group of countries (i.e., RCA<1).

After RCA calculations have been made, we proceed to evaluate the results by grouping the goods in accordance with factor content and observing the grouping's RCA movement over time. We adopt the method of factor intensity classification employed by Baumann & Mauro (2007) who build on Hufbauer & Chilas (1974). The export flow data based on the initial 71 2-digit SITC sectors are aggregated into four product groups, depending on the factors of production the sectors mostly use - (i) raw materials, (ii) labour, (iii) physical capital and (iv) research. After categorization, the RCA calculations are averaged for each category and then compared across the years. The results of these calculations presented in table 4 confirm the preliminary expectations, connected with the relative factor abundance of Bulgaria, which determines its predominant specialization in labour-intensive sectors. Throughout the period, the products which use mostly labour as a production factor, on average, are the most competitive Bulgarian products exported to the EU. Nevertheless, after its peak in 2003, there is a continuous RCA decline of those products, which is a salient feature in the years of full EU membership.

Table 4. Revealed comparative advantage index (RCAi) by factor intensity of Bulgaria, Romania, Hungary, Slovakia in trade with EU-27 (2002-2009)

Country	Export category	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Bulgaria	Raw materials-intensive	1.88	1.43	1.07	1.24	1.19	1.06	1.35	1.73
	Labour-intensive	2.37	2.47	2.39	2.25	2.19	2.13	1.86	1.63
	Capital-intensive	1.21	1.29	1.36	1.33	1.24	1.73	2.02	2.06
	Research-intensive	0.40	0.42	0.42	0.58	0.62	0.61	0.60	0.57
Romania	Raw materials-intensive	0.83	0.91	0.89	0.78	0.93	0.78	1.04	0.96
	Labour-intensive	3.12	3.12	2.96	2.90	2.78	2.43	2.17	1.92
	Capital-intensive	0.73	0.63	0.67	0.73	0.71	0.89	1.16	1.18
	Research-intensive	0.42	0.48	0.51	0.55	0.62	0.61	0.66	0.66
Hungary	Raw materials-intensive	0.68	0.69	0.71	0.68	0.65	0.73	0.77	0.76
	Labour-intensive	0.96	0.89	0.80	0.76	0.74	0.68	0.68	0.67
	Capital-intensive	0.42	0.41	0.42	0.44	0.47	0.50	0.56	0.61
	Research-intensive	1.11	1.21	1.26	1.09	1.15	1.22	1.23	1.23
Slovakia	Raw materials-intensive	0.84	0.67	0.90	0.97	0.84	0.72	0.71	0.71
	Labour-intensive	1.47	1.37	1.29	1.29	1.19	1.13	1.11	1.12
	Capital-intensive	1.28	1.26	1.28	0.86	0.92	0.75	0.76	0.79
	Research-intensive	0.58	0.56	0.60	0.67	0.68	0.75	0.83	0.86

Source: Eurostat, External Trade Database, own calculations

Note: Due to unavailable data, the electric current is not included in Bulgaria's exports of capital-intensive products prior to 2007.

Owing to the good performance of traditional for Bulgaria sectors such as ferrous and non-ferrous metals, manufactured tobacco and alcoholic beverages, the capital-intensive categories of Bulgarian exports also register revealed comparative advantage vis-à-vis the EU. The RCA growth in the last years is due to inclusion of electric current since 2007, for which official data was unavailable for previous years. Overall we are not able to say that the positive RCA values testify of a high capital abundance of Bulgaria's economy. Most of the production capacities in those industries are inherited from the planned economy and to large extent exhibit characteristics similar to the raw materials-intensive manufactures.

A positive evolution in the Bulgarian trade is the gradual withdrawal from specialization in raw materials-intensive goods, the RCA index of which declined from 1.88 in 2002 to 1.06 in 2007, though after 2008 it again started to increase and almost regained its positions from the beginning of the period. At the same time the research-intensive Bulgarian products throughout the whole analyzed period possess comparative disadvantage on the EU market with a value of RCA index constantly less than 1. The poor performance of Bulgaria in trade with research-intensive goods is attributed among other factors to the limited and constantly decreasing R&D expenditures (0.57% of GDP in 1998, contracting to 0.49% ten years later). Yet there is a certain progress over the years in diminishing the comparative disadvantages in research-intensive products, but the process is uncertain and slower compared with Romania.

Unlike Bulgaria and Romania, Hungary enjoys comparative advantages and specialization in research-intensive products in its relations with the EU. The structural transformation of the economy has progressed with a much faster pace and transition from specialization in labour-intensive to research-intensive sectors has already been accomplished in the beginning of the analyzed period. In the process of European integration, with the increase of labour costs and loss of cost competitiveness due to intensified competition of cheaper producers, Hungary managed to increase its technological competences and to reallocate its resources to research-intensive industries. The successful transformation of the Hungarian economy besides the large disparities among new EU member states, demonstrates that those countries are not doomed to be Europe's economic periphery.

To further evaluate the export competitiveness of Bulgaria we shall present another frequently used indicator – share of high-technology products in the export bundle. It is indicative of the technological advancement of the country and its potential for future growth. The data from table 5 confirm the conclusions, based on the factor intensities of exports.

Table 5. Share of high-technology exports in trade with the EU (2002-2009, %)

	2002	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2002-09 average**
Bulgaria	2.31	2.47	2.15	3.11	4.03	3.26	3.08	3.42	2.98
Romania	3.33	2.89	3.14	3.39	4.19	2.82	4.51	6.72	3.87
Hungary	21.30	21.81	20.63	17.22	16.97	14.53	13.75	16.47	17.84
EU-27	15.06	13.53	13.14	12.62	13.09	8.44	8.28	9.60	11.72

Source: Eurostat, External Trade Database, own calculations

The share of high-tech products in Bulgaria's exports to the EU is exceptionally low. Over the period 2002-2009 it is lower than Romania's share with the exception of 2007. In comparison with Hungary, the disparity is overwhelming. Bulgaria's competitiveness is in a wide technological gap: the share of high-tech products in the exports to the EU is almost 4 times lower than the corresponding share in intra-EU-27 exports.
We have chosen as a case study one of the labour intensive sectors which for more than a decade ranked high in the export list of the country, which will give us a deeper understanding of the sources of Bulgaria's export competitiveness.

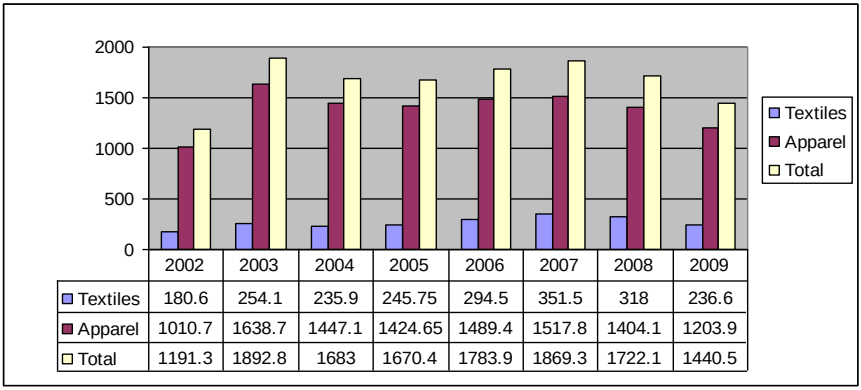
6. The case of the Bulgarian textile and apparel industry

The industry is of a particular interest as one of the leading national export branches over the last 10 years, reaching as high as 25% of total exports in 2003 and 12.2% in 2009 respectively. Upon Bulgaria's accession to the EU, the sector became almost completely pegged to the EU market as over 90% of exported production has been orientated towards the other 26 member states, reaching the biggest share of 92.3% in 2009.
Regarded as a traditional sector that had previously contributed substantially to the industrialization of the country (Berov, Natan, 1958), in the late 90s of the 20th century it was already predominantly export orientated. Apparel production in particular was attracting the attention of prospective customers and that of researchers[1] as well. The latter were expecting a period of about 15 years of ascending development that would have been followed by an inevitable decrease inflicted by the rise in production costs following EU accession (as it was the situation in other EU member states such as Greece, Spain, Portugal). Although given the above mentioned perspectives, historically there were some contradictory findings that could be also paralleled nowadays. For instance, despite the high relative importance of the textile sector for the Bulgarian economy in the 30s, studies indicated low level of industrialization and respectively low value added in production (Gerschenkron, 1962). Similarly in the 90s as in the first decade of the 21st century, Bulgarian textile and more accurately apparel producers, were mainly working as subcontractors on Cut & Make or Cut, Make & Trim basis, thus generating low value-added limited to adoption of technological know-how, access to new designs and materials, and merely covering production costs.

[1] Eddleston, E., Perez, A., Razvigorova, E., 2001, Textile Sector Study, Bulgaria – Marketing Support for the Promotion of Foreign Direct Investment in Bulgaria, NEI B.V and Idom.

Nevertheless, as per the industry's development expectations, it was steadily growing on the export scale reaching two peaks in exports in 2003 and in 2007 immediately after EU accession (see figure[2]).

Figure 3. Bulgaria's Textile Exports, million EUR



	2002	2003	2004	2005	2006	2007	2008	2009
Textiles	180.6	254.1	235.9	245.75	294.5	351.5	318	236.6
Apparel	1010.7	1638.7	1447.1	1424.65	1489.4	1517.8	1404.1	1203.9
Total	1191.3	1892.8	1683	1670.4	1783.9	1869.3	1722.1	1440.5

Source: National Statistical Institute of Bulgaria

As of 2008, production volumes and respectively exports were already declining as the industry was one of the first to be hit by the economic crisis spreading to the majority of customers for Bulgarian apparel and textile products such as Greece, Germany, Italy. Total Bulgarian textile exports dropped by 11.3% on annual basis in 2008 and by 16.4% in 2009 accordingly. Considering data of the National Statistical Institute related to production indices the situation was even worse – decrease of more than 13% of the production index in manufacturing of textiles in 2008 and a collapse of more than 30% in 2009 accompanied by substantial job losses and even closing of factories. Nevertheless, the decrease in imports of textile raw materials, fabrics and clothing was in a comparable or even bigger range compared to exports – a drop by about 10% on annual basis in 2008 and by 21.3% in 2009 accordingly. That could be a symptom of improving competitive export positions which however is not confirmed by the analysis of other indicators. Thus, in 2009 there was a decrease in average value per units of textile and apparel goods exported even if there was a slightly bigger decrease in respective average figures for textile products imported.

[2] In order to have a more precise differentiation between textiles and apparel sub-sectors the data in the following figure is based on the nomenclature of the Harmonized Commodity Description and Coding System (**HS**). Textiles (raw materials, fabrics, etc.) are represented in chapters 50 to 60 of the HS, while apparel (knitted and woven, used apparel and confection) are represented in chapters 61 to 63 accordingly.

Table 6. Average value of exported and imported textile & apparel goods (EUR)

Category	2008	2009	Change (%)
Average value per 1 kg exported	€12.41	€11.69	-5.8%
Average prices per units exported (items, pairs, dozens, etc.)	€4.96	€4.75	-4.2%
Average value per 1 kg imported	€6.15	€5.93	-3.6%
Average prices per units imported (items, pairs, dozens, etc.)	€2.87	€2.72	-5.2%

Source: National Statistical Institute of Bulgaria

The fact that above average export values are roughly twice as bigger as their import homologues could be explained by the structure of the textile foreign trade of the country. Thus, in 2009 textile raw materials, fabrics and accessories represented 66.2% of Bulgaria's overall textile and apparel imports, and on the other hand, as low as 16.4% of overall exports of textile production. The higher value added in apparel production, respectively their predominant share in the country's overall textile exports (83.6% in 2009) determines respective differences between average export and import prices and, therefore, could not be considered as an improvement of the sector's export competitiveness.

A slight improvement in that direction could be found in the minor increase of average export prices of the most competitive segment of the Bulgarian textile sector in recent years – the production of woven apparel. As of 2009, the price per unit of woven production exported increased by merely 0.6% (13.96 Euros compared to 13.87 Euros in the previous year). Representing 43.9% of overall textile exports of the country in 2009, woven apparel made in Bulgaria has been exported practically on a global scale, all other member countries of the EU included, with the biggest shares of production directed to customers located in Germany, Italy, France, Greece and Spain. Bulgaria's major advantages in that respect are not only lower costs of production, but the ability for quick response to customers' needs by producing clothing of a very good quality and in small series, which could be delivered to major customers in Western Europe approximately 2 weeks faster compared to suppliers located in Southeast Asia, for example.

However, a purely economically grounded assumption is that Bulgarian apparel producers could not compete in the long run on the basis of low production costs. Surprisingly, it did happen on a mid-term scale after EU accession. According to preliminary statistical data, as well as observations from representative sector

associations[3] as of the third quarter of 2010, Bulgarian apparel exports rose by 10-11% on annual basis, an unexpected result compared to the steady decrease in previous years. Field studies have indicated that there were many new orders placed and entrepreneurs were facing shortage of labor force while in the meantime they were expecting to reach new annual peaks in turnovers similar to the year 2007.[4] A logical explanation to that 2010 phenomenon would be the slight economic recovery in some of the Eurozone member countries which were major markets for Bulgarian apparel production. On the other hand, at the end of the second quarter of 2010, there was an appreciation of the Chinese Yuan to the Euro with about 10% (compared to the exchange rate at the end of the first quarter) as well as a roughly similar appreciation of the US dollar to the Euro for the same period. By coincidence or not, there were testimonials that orders were redirected to Bulgarian subcontractors namely following deteriorated production cost calculations on alternative markets such as the Chinese.[5]

Thus, as in the second half of 2010, Bulgarian apparel producers obviously became directly involved in low production costs competition on a global scale – an interesting case illustrating potential negative outcomes of the low value-added export specialization. Historically, there are examples how textile and apparel production had led to accelerated industrialization and related spin-off effects in England, Japan (e.g. Toyota). By contrast in Bulgaria, there are examples of reverse development when former textile and apparel entrepreneurs that have already adopted surviving firm level strategies throughout their work on C&M and CMT basis are establishing new businesses in an even lower value-added direction. Instead of development of the know-how acquired and capacity built, potential diversification or even establishment of own trademark, some former apparel entrepreneurs are opening new businesses such as in the utilities sector, the packing of goods, or even turning production facilities into commercial sites and malls. Consequently, the export specialization of the local textile and apparel sector so far provides good example of steady concentration in low value-added segments, paradoxically to the positive perspectives associated with economic and industrial development, and hence export specialization after EU accession.

6. Conclusions

Based on the present analysis, several conclusions can be drawn with respect to the export competitiveness of Bulgaria after its accession to the EU.

[3] Such as the Bulgarian Association of Apparel and Textile Producers and Exporters (BAATPE).
[4] Bozhinov, T. From needle to thread, Capital online edition, 8/10/2010, http://www.karieri.bg/karieri/profile/973464_ot_igla_do_konec/
[5] Field studies of T.Tzanov within BAATPE member companies.

Apparently Bulgaria has not managed to get full advantage of its EU integration to promote its export competitiveness. Its trade has been strongly misbalanced for a long period of time. Despite the steady increase in the value of exports before the global economic crisis occurred, the imports were exceeding, thus leading to a chronic trade deficit, a meaningful sign of inadequate export competitiveness.

Bulgaria's exports are highly concentrated to few countries, which makes the economy more vulnerable to negative developments namely on those markets. Expanding market reach in products that have already proven to be competitive could offer a substantial growth incentive. Despite the simultaneity of the global economic downturn there are markets which are growing faster than the average. Bulgaria has to diversify its exports across more regions as an effective insurance against crises, whilst paying special attention to growth markets such as the Middle East, the emerging EU markets, Russia, Ukraine, etc.

A distinctive character of Bulgaria's export performance is its low product diversification with two leading SITC sections "Manufactured goods classified by material" and "Miscellaneous manufactured articles" representing more than 53% of total exports to the EU. The relatively high concentration in such manufactures gives Bulgaria's export specialization a gloomy perspective. The demand of some of Bulgaria's major export goods (ferrous and non-ferrous metals) is exposed to business cycle volatility, which brings significant fluctuations and instability of export revenues. The products in which Bulgaria has specialized are being exported mostly from developing countries where competition is severe and is based mainly on prices. In the process of increasing globalization it is going to be difficult for Bulgarian exporters to withstand the global competitive pressure from foreign producers possessing ampler and cheaper labour force and raw materials.

Changes in the factor content of exports are indicative of the rate of transformation and technological advancement of a nation. In spite of the declining RCA index of labour and resource-intensive products, they still exhibit comparative advantage in Bulgaria's trade with the EU in contrast to the most perspective category of research-intensive products, which despite some progress, remain largely uncompetitive. The share of high-technology products in Bulgaria's export is negligible. The export specialization of Bulgaria is thus based on static comparative advantages, relying on basic factors of production, namely relatively cheap raw materials, energy and labour force. The analyzed case of the Bulgarian textile and apparel industry indicates steady concentration in low value-added production that grounds its competitive attractiveness on low production costs well after the year of EU accession.

The factors of competitiveness such as highly-educated human capital, new technologies, innovations which are becoming increasingly important in the face of structural changes engendered by globalization are not manifested yet in Bulgaria's trade performance.

In sum, we find that the EU integration and accession of Bulgaria has yet not accelerated the much needed structural transformation and technological upgrading as achieved by other CEE countries and despite that the process has already started, it is rather slow. At the same time, due to increasing globalization Bulgaria's current export specialization may not be sustainable in the medium-term, posing a threat on the long-term economic performance and process of catching up with the EU partners. Thus, there is a need of a better targeted industrial policy, sector and firm level strategies, to facilitate and give momentum to a shift towards knowledge and technology intensive activities, associated with higher factor productivity, higher spill-over effects, higher real wages and rising living standards in the economy. The reorientation to future-oriented higher value-added production would require appropriately developed strategic and institutional infrastructure, intensified transfer of technology, investments in R&D, highly qualified human capital – issues that have to be addressed by Bulgarian policymakers, educational institutions, industrial branch structures and entrepreneurs, in the framework of full EU membership.

REFERENCES

Aiginger, K., 2006, Competitiveness: From a Dangerous Obsession to a Welfare Creating Ability with Positive Externalities, Journal of Industry, Competition and Trade, 2006 (6), 161-177.

Angelov, I., 2005, Competitiveness – the major challenge confronting Bulgaria in the European Union, Sofia.

Balassa, B., 1965, "Trade Liberalisation and 'Revealed' Comparative Advantage", The Manchester School, 33, 99-123.

Baumann, U., Mauro, F., 2007, Globalization and Euro Area Trade- Interactions and Challenges, European Central Bank Occasional Paper No 55, Frankfurt am Main.

Berov, L., Natan, J., 1958, Monopolistic capitalism in Bulgaria, DI "Nauka i izkustvo", Sofia.

Borbely, D., 2006, Trade Specialization in the Enlarged European Union, Heidelberg.

Borbely, D., (2004) EU Export Specialization Patterns in Selected Accession Countries, EIIW, Wuppertal.

Eddleston, E., Perez, A., Razvigorova, E., 2001, Textile Sector Study, Bulgaria – Marketing Support for the Promotion of Foreign Direct Investment in Bulgaria, NEI B.V and Idom.

European Commission, 2009, Five years of an enlarged EU – Economic achievements and challenges, European Economy, 1/2009.

Eurostat, External Trade Database, http://epp.eurostat.ec.europa.eu

Farole, Th., et .al, 2010, Analyzing Trade Competitiveness – A Diagnostics Approach, The World Bank, Washington DC.

Gerschenkron, Al., 1962, Some Aspects of Industrialization in Bulgaria, 1878-1939 in Economic backwardness in historical perspective, Cambridge, Massachusetts: Belknap Press of Harvard University Press, pp.198-234.

Havlik P., (1998), Export Competitiveness of Central and Eastern Europe, in: The Competitiveness of Transition Economies, OECD, Paris.

Hesse, H., 2009, Export Diversification and Economic Growth. In Newfarmer,R et. al., Breaking into New Markets: Emerging Lesson for Export Diversification, pp. 55-80, Washington DC.

Hufbauer, G., Chilas, J., 1974 " Specialization by Industrial Countries: Extent and Consequence". In:Herbert Hirsch (Ed.), The International Division of Labour, Problems and Perspectives, International Symposium, Tübingen.

Ketels, Ch., 2010, Export Competitiveness: Reversing the Logic, WB, Washington.

Krugman, P., 1996, Making Sense of the Competitiveness Debate // Oxford Review of Economic Policy , 12, pp.17-25.

Kubiak, A., 2006, On Essence and Measurement of Changes in Competitiveness of the Accession Countries. Critical Review of Literature, CASE, Warsaw.

Landesmann M., (2002), Trade Integration and Changing Trade Structures of Transition Economies, in: Completing Transition: The Main Challenges, ed. G. Tumpel-Gugerell, L. Wolfe, P. Mooslechner, Springer, Berlin.

Landesmann, M., Y. Woerz, (2006), The Competitiveness of CEE in a Global Context, Bank Austria Creditanstalt, Vienna.

Markusen, J., 1992, Productivity, Competitiveness, Trade Performance and Real Income: The Nexus Among Four Concepts, Ottawa.

National Statistical Institute of Bulgaria (Various issues) www.nsi.bg

Ng, F., 2002, "Trade Indicators and Indices", in Hoekman, B., Mattoo, A., English, P. (eds) Development, Trade and the WTO, A Handbook, The International Bank for Reconstruction and Development and World Bank.

OECD, 1997, Technology and Industrial Performance, Paris.

Tzanov, T, 2008, Textile and Apparel Production in Bulgaria, Current Development and Perspectives, Sofia.

UNCTAD, 2004, "Trade and Development Report '04 ", NY and Geneva.

Zhelev, P., 2009, Export specialization of Bulgaria in the relations with the European Union (1999-2007), // Research papers No 1/2009, UNWE, Sofia.

Zhelev, P., 2009, Comparative Advantage and its Quantitative Assessment, //Business Directions, 1/2009.