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STRUCTURAL CHANGES IN THE FOREIGN TRADE AND ECONOMIC GROWTH OF BULGARIA AND ROMANIA IN THE YEARS OF EU MEMBERSHIP

The specificities of the processes accompanying the accession of Bulgaria and Romania to the EU and beyond are investigated based on the example of the interconnection between foreign trade and economic growth. The dynamics and changes in the structure of foreign trade in the two countries are examined from a comparative point of view, and an attempt is made to determine how they affect the economic growth rate. The analysis covers the period 2007-2018, which was chosen because it encompasses the time from the start of Bulgaria and Romania's EU membership until the present.

JEL: F31; F43; O52

Keywords: foreign trade; economic growth; structural changes; Bulgaria; Romania

Over the last few decades, Bulgaria and Romania have shared similar political, social and economic development. During the process of the EU accession and after that, on the path to Schengen and euro area membership, the two countries have even been considered as a sort of package.

During the period of transition to a market economy and preparation for EU accession both economies faced similar problems. The deterioration of the production structure and the inability of most enterprises to adapt and compete on the markets of the developed countries have led to an equally significant problem for the two economies, namely, the low value added of their output. Another problem was the loss of the foreign markets within the former Council for Mutual Economic Assistance (COMECON), and especially in the former Soviet Union, which was more relevant to Bulgaria.

The sharp deterioration of the economic environment proved to be a problem for both countries during the period of initial capital accumulation, any inappropriate solution in the privatization process was justified by the need for rapid privatization. Deindustrialization in Bulgaria has been perceived as part of the natural course of the reforms undertaken in order to transition to a market economy and, to some extent, as a consequence of the deep economic crisis in the first half of the 1990s. To a certain extent, deindustrialization is also a result of the selected forms and methods of transition and privatization and is not so much related to the development of the tertiary sector (services) and even less so to the increase in labour productivity. The absence of a transition strategy, the way reforms were implemented, the lack of care to preserve what was achieved in industrial development, the

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postponed and shock privatization, and the subsequent lack of post-privatization control had a decisive impact on the dynamics of the production and the efficiency of the industry. (Rangelova, and Sariiski, 2019). Different programs for alternative employment and alternative production have been developed to mitigate the adverse effects. Strategies for attracting foreign direct investment and for restructuring production activities have been implemented, the main effect of which has been the gradual reorientation of local producers to subcontracting and component production, mainly for large companies in Western Europe.

Bulgaria and Romania have made significant efforts to build functioning market economies and to meet other conditions for EU accession (World Bank Group, 2018). They have also made economic progress. As of 1 January 2007, the two countries are full members of the EU.

At the same time, however, the economic data from 2007 onwards show quite a few differences between the countries, i.e. the two economies do not benefit equally from their EU membership and they are adapting to it differently, wherein, in most of the cases, Romania is achieving better results. The key convergence indicator, such as GDP per capita by purchasing power standard, demonstrates the significant progress Romania has been able to make compared to Bulgaria over the span of just 10 years.

The analysed period includes the years of membership of both countries in the EU – from 2007 to 2018. In addition, it provides a benchmark against developments before their accession to the EU and provides an opportunity to take into account the state of foreign trade and GDP before the onset of the last global financial crisis, the crisis period and the post-crisis development. It should be borne in mind that the transition to the Single market started and was accelerated during the pre-accession process. In practice, the period under consideration more or less completes the adaptation of the production structure to the conditions of the EU Single market and the participation in integration policies (Panusheff, 2017).

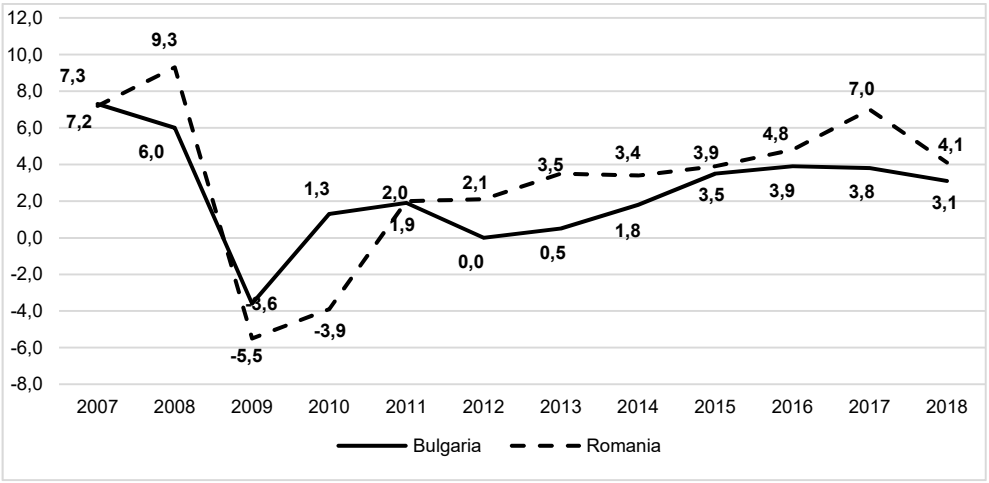
Bulgarian and Romanian GDP and its components

In addition to the fact that the problems of Bulgaria and Romania at the beginning of the transition to a market economy were similar, both countries had a relatively close performance in terms of some of the key economic indicators (Rangelova, and Sariiski, 2017). By level of economic development, estimated on the basis of GDP per capita in PPS, in the year before their EU accession the two countries held very close positions. In 2006, the difference between them in terms of this indicator was only 2 percentage points (p.p.), with 37% for Bulgaria and 39% for Romania, respectively, as compared to the EU average = 100%. By 2018, Bulgaria managed to increase the indicator by 13 p.p. and reached 50.8%, while Romania managed to improve the ratio to 65.6%, thus showing faster convergence with other EU countries. In almost all the years of their membership, Romania's average

annual GDP growth rate has been much higher than Bulgaria's, except for the years of the global financial and economic crisis (Figure 1). Thus, during the years of EU membership the real GDP increased by 33.6% for Bulgaria and by 43.7% for Romania (see Figure 2).

Figure 1

GDP growth rate of Bulgaria and Romania, %



Source. Eurostat. Economy and Finance. National Accounts.

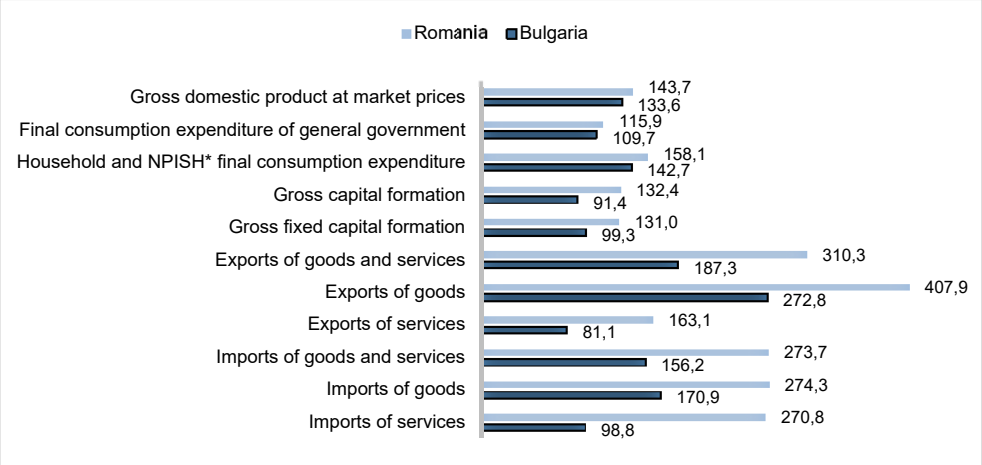
With the onset of the global financial crisis, Romania's GDP contracted by 5.5% in 2009 against -3.6% for that of Bulgaria. This forced the Romanian government to seek international assistance from the IMF, the EU and other financial institutions. From 2011, the country has once again started registering positive growth, mainly generated by stable exports and, in the last few years, by household final consumption expenditures (growing at about 2 times higher rates than those in Bulgaria).

In 2018, Bulgaria was among the New Member States with the lowest economic growth. The growth was 3.1% (against 5.1% in Poland, 4.9% in Hungary, 4.8% in Latvia, 4.5% in Slovenia, and 4.1% in Romania and Slovakia). Such economic growth cannot have a noticeable impact on poverty reduction and overcoming of economic and social inequalities and cannot fulfil the role of a so-called inclusive catch-up development. On the contrary, with the post-crisis pace of economic growth, Bulgaria is increasingly establishing itself as the least developed economy in the EU.

The dynamics of the individual components of the GDP for 2018 compared to those for 2006 show that Bulgaria has not achieved better results than Romania in any of them (Figure 2).

Figure 2

GDP and its components in 2018, 2006 = 100%



* Non-profit institutions serving households.

Source. Eurostat. Economy and Finance. National Accounts.

There is a slight difference in the final consumption expenditures of the general government, with a minimal increase in both countries during the analysed period. However, the fiscal policies of the two countries differ in many aspects. In Bulgaria, efforts are concentrated mainly in maintaining a balanced budget, and deficits are allowed only during extraordinary events (such as the need to draw loans to deal with the banking crisis related to the bankruptcy of the Corporate Commercial Bank in 2014 or to pay in full and in a single advance payment for F-16 fighter jets in 2019). Such events also lead to an increase in the country's gross government debt to GDP ratio from 16.3% in 2007 to 22.3% in 2018 (with a peak of 29.3% in 2016). Unlike Bulgaria, in recent years Romania has been actively pursuing pro-cyclical budgetary policies because of which the country has structural budget deficit. In the period 2016-2018 it was in the range between 2.6% and 3%, i.e. close to the maximum level set by the Maastricht Treaty. This policy can be considered as an important factor in achieving higher economic growth in the country (which in turn played a role in raising incomes and reducing inequalities and poverty problems). The high economic activity is the reason for Romania to reduce its gross government debt to GDP ratio from 39.2% in 2014 to 35% in 2018 despite the budget deficits. The increase in household final consumption expenditure is a manifestation of the faster improving purchasing power and, to a certain extent, of the standard of living of Romanian citizens – in 2018, compared to 2006, it was 58.1% in Romania and 42.7% in Bulgaria.

The dynamics of investment in both countries draws attention. Although they follow a similar trend – a sharp increase in the pre-accession period to the EU and in the first years of their membership, which coincides with the time before the global

financial and economic crisis, and a sharp decline during and after it – Romania has seen some recovery after reaching the bottom in 2010. In Bulgaria, there is no sign of recovery of the pre-crisis levels, on the contrary, there is stagnation in the investment activity.[1] A significant weakness of the Bulgarian economy is the insufficient domestic investment, which coincides with the declining inflow of foreign direct investment and the deterioration of their structure. Investments in the "IT and communications" and the "Professional activities and research, which are of paramount importance for building a high-tech and competitive economy and have a direct impact on the dynamics of economic growth, show a slight increase. (Bobeva and Zlatinov, 2019, p. 103-137). The weak investment activity in the relatively long period after the crisis will inevitably have a negative impact on long-term economic growth potential.

The exports, considered to be the engine of the Bulgarian economy, also have a significantly lower performance than that of Romanian.[2] Romania's exports of goods in real terms over the membership period have increased more than 4 times, while Bulgaria's exports – 2.7 times. Over the same period, exports of services from Romania increased by 63.1%, while those from Bulgaria decreased by 18.9%.[3] Due to the slowdown in export growth in Bulgaria and also due to stronger domestic demand (incl. for consumer goods) affecting the volumes of imports, the net exports, which until recently were a major driver of growth, have already made a negative contribution to the overall growth (Bobeva and Zlatinov, 2019).

The different rates of change in the GDP components also lead to changes in its structure (Table 1). In both economies, the share of the final consumption expenditure of general government remains almost at the same level in 2018 as compared to 2007. The most significant changes are observed in the share of investments, with their share in Romania being higher than their share in Bulgaria, however, the observed decrease is also larger – by 14.1 p.p. to 21.2%, compared to a reduction of 9.3 p.p. up to 19% in Bulgaria. The share of household final consumption expenditure also decreases but to a lesser extent. These components of the GDP are losing ground at the expense of the exports, which directly demonstrates its growing role in the economic development of the two countries during a period under consideration. The share of imports in GDP is moving in opposite directions in the two countries – with an increase for Romania and a decrease for Bulgaria – nevertheless, Bulgaria remains a much more import-dependent country. Changes in foreign trade flows cause Bulgaria to report a surplus in 2018, albeit small.

Similar structural changes are also observed in the EU-28, with the main difference being that the Union average share of investment remains almost unchanged (around 20% over the whole period). From this point of view, it can be assumed that the decline of this indicator in Bulgaria and Romania is related to the high values in

[1] However, investment growth, albeit by only 6.5% in 2018, can be considered as a positive sign.

[2] For the link between exports and economic growth, see Rangelova, 2013, p. 116-122.

[3] It is interesting to note that the total amount of exports of services from Romania exceeded that of Bulgaria by 75% in 2006 and by 165% in 2018.

the first years of EU membership and the catching up to the average EU levels at a later stage.

Table 1

GDP structure of Bulgaria and Romania and correlation between the rate of change in the GDP and that of its individual components

	GDP structure, %				Correlation between the rate of change in the GDP and that of its components, 2006-2018	
	BG		RO		BG	RO
	2007	2018	2007	2018		
GDP	100.0	100.0	100.0	100.0		
Final consumption expenditure of general government	16.7	16.5	15.4	16.6	0.56	0.62
Household and NPISH final consumption expenditure	68.5	61.9	67.4	62.5	0.85	0.92
Gross capital formation, incl.:	33.6	20.7	31.3	24.2	0.80	0.76
Gross fixed capital formation	28.3	19.0	35.3	21.2	0.75	0.70
Exports of goods and services, incl.:	52.4	64.5	24.7	41.6	0.63	0.47
Exports of goods	36.5	49.0	17.2	30.5	0.57	0.26
Exports of services	15.9	15.5	7.5	11.2	0.19	0.53
Imports of goods and services, incl.:	71.2	63.6	38.8	44.9	0.81	0.62
Imports of goods	60.0	53.7	33.7	37.8	0.78	0.52
Imports of services	11.2	9.9	5.1	7.1	0.29	0.79
Foreign trade balance of goods and services, incl.:	-18.8	0.9	-14.1	-3.3		
Foreign trade balance of goods	-23.5	-4.7	-16.5	-7.3		
Foreign trade balance of services	4.7	5.6	2.4	4.1		
Trade Openness	123.6	128.1	63.5	86.5		

Source. Author's calculations based on data from Eurostat.

Regarding the correlation between the rate of change in the GDP and its components, there is a similarity between the two countries in terms of investment and final consumption of government and households. In Bulgaria there is a higher correlation between the rate of change in foreign trade flows and that in GDP (Table 1). The correlation coefficient between the rates of change in the exports of goods and services and the GDP for the period 2007-2018 is 0.63, and that between the imports of goods and services and the GDP is 0.81, which shows a greater dependence of the GDP on the imports rather than on the exports of goods and services.[4] The corresponding coefficients in Romania are significantly lower – 0.47 and 0.62, respectively. This indicates that the state and development of Bulgaria, as a more open economy, is more influenced by the international economic situation. On the other hand, the correlation of imports and exports of services and GDP in Romania is

[4] According to a recent empirical study on the relationship between exports and economic growth in Bulgaria (1999-2017), in the short and medium term, the exports of goods and services are a factor for economic growth, while in the long term the exports are much more dependent on the GDP (Zlatinov, 2018, p. 211-226).

significantly higher than that of imports and exports of goods only, which indicates a more active foreign trade activity of this country in the services sector.

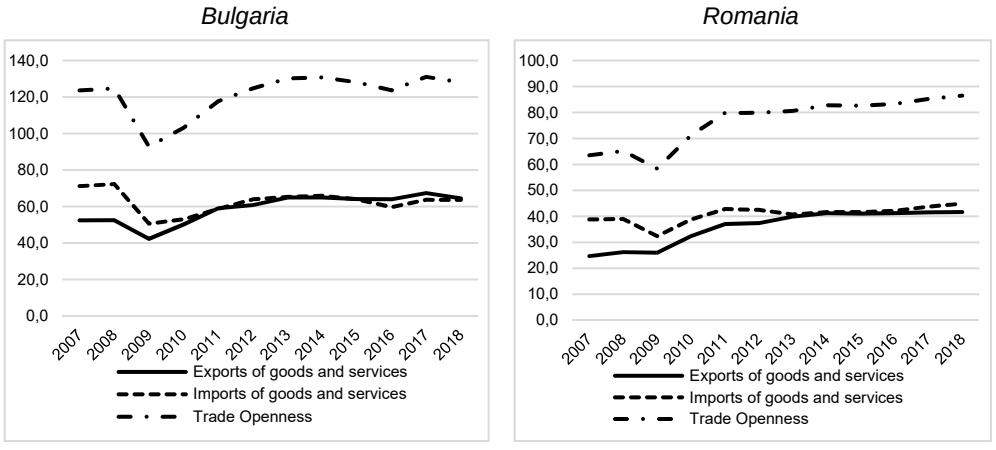
Trade openness of the economies of Bulgaria and Romania

Practice shows that as a result of the integration into a common market such as the EU, there is an increase in the volume and share of intra-community trade in the total trade flows of the participating countries. In both countries (Bulgaria and Romania), there has been an increase in trade openness (the ratio of exports plus imports to GDP) to EU countries over the period under consideration. As a rule, integration processes stimulate foreign trade, especially within the community, but at the same time they create conditions for amplifying the negative effects for the participating economies in times of economic crisis (Marinov, 2018).

A comparative analysis of the trade openness of the two economies shows that the relative share of exports and imports as a percentage of the GDP for Bulgaria is significantly higher than that for Romania (Figure 3). However, the rise in the trade openness indicator is much higher for Romania – from 65.3% to 86.5%, i.e. by 21.2 p.p., while for Bulgaria it is from 123.6% to 128.1%, i.e. by only 4.5 p.p. The slower increase in the trade openness of the Bulgarian economy can be explained by the much higher starting values of the indicator (the share of foreign trade is well above 100% of the GDP), therefore it cannot increase significantly.

Figure 3

Trade openness of Bulgaria and Romania, %



Source. Eurostat. Economy and Finance. National Accounts.

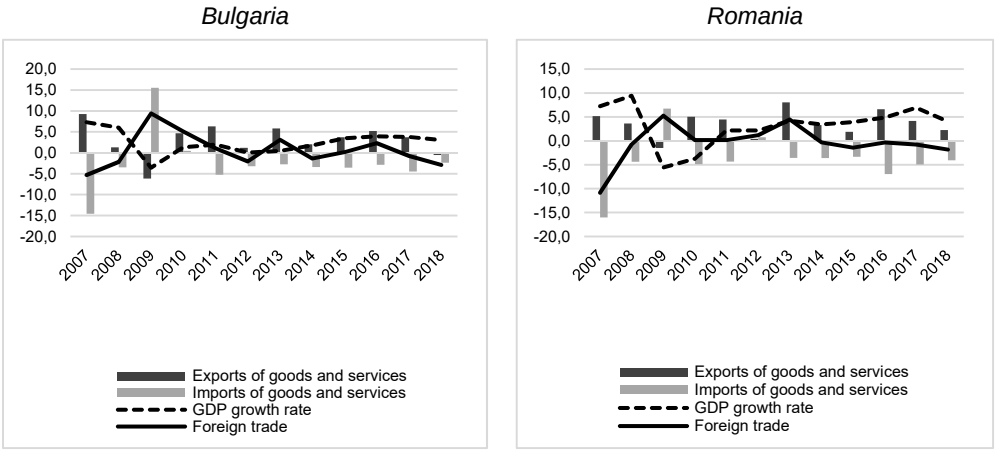
Despite the high levels of trade openness, especially in Bulgaria, in 2018 the country ranked 13th in the EU-28 for this indicator, however, it is well above the EU average (86.5%). Romania on the other hand, with values close to the EU average, is ranked 22nd. The countries with the highest levels of trade openness are predominantly smaller economies such as Luxembourg (415.5%), Malta (269.5%), Ireland (211.5%),

Slovakia (192.4%), while Italy (61.1%), the United Kingdom (61.3%), France (63.4%) and Spain (66.6%) are at the opposite pole.

The role of foreign trade in economic growth can be analysed through the contribution of exports and imports to the GDP rate of change. During the period under consideration, the relationship between the two indicators in Bulgaria and Romania underwent similar changes (Figure 4).

Figure 4

Role of exports, imports and foreign trade in GDP change (percentage points) and the rate of GDP change (%)



Source. Author's calculations based on data from Eurostat. Economy and Finance. National Accounts.

From the beginning of the two countries' EU membership to 2011, the rate of change in the GDP and the contribution of foreign trade moved in opposite directions – the GDP growth was accompanied by an increase in the negative contribution of foreign trade to its rate of change and vice versa. This is an expression of the high trade openness of both economies, the underdeveloped industry and the high dependence on imports of consumer and investment goods. In other words, the increasing purchasing power and investment activity during the economic expansion is largely satisfied by imported products. On the contrary, the sharp contraction of the economy during the global financial and economic crisis has led to a much stronger contraction in imports relative to exports, and thus, foreign trade plays a role in limiting GDP decline. After 2012, the nature of the relationship begins to gradually change – the direction of GDP change and the contribution of foreign trade are both starting to move in the same direction, reflecting the greater role that foreign trade and exports particularly play in economic activity.[5]

[5] Only the direct and immediate effects of foreign trade on GDP change are considered, and not the long-term ones.

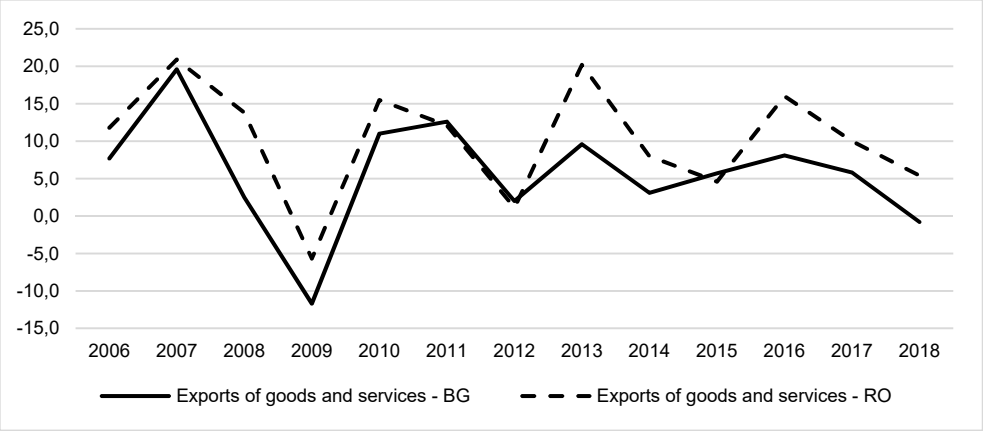
Dynamics of foreign trade flows

The dynamics of exports of goods and services follow similar trends in the two countries, with Romania's exports being characterized by greater fluctuations and usually higher growth rates (Figures 5 and 6). Encouraged by the accession to the EU Single market, the exports of both countries increased by more than 20% in 2007, with the pace of growth slowing down since the beginning of the 2008 global financial and economic crisis. In 2009, there was a decrease, two times bigger for Bulgaria than for Romania.[6] However, the decline in exports was significantly smaller than that of imports, which reflected in a drastic contraction of the countries' trade deficit, as a result of which Bulgaria even reached a trade surplus in 2011. Thus, foreign trade acted as a kind of automatic stabilizer for the economies of both countries. After the global financial and economic crisis, Bulgaria has not been able to recover or even come close to its pre-crisis export growth rates, while the weak import growth rates help maintain a trade surplus in some years. It should be noted that this surplus is due to the trade in services, which manages to cover the deficit in the trade in goods.

Unlike Bulgaria, Romania has managed to reach or come close to the pre-crisis export growth rates in some years, with rates twice as high as those in Bulgaria. Romania also has a trade surplus in services but is unable to cover the deficit in goods.

Figure 5

Rate of change in the exports of goods and services in Bulgaria and Romania, %

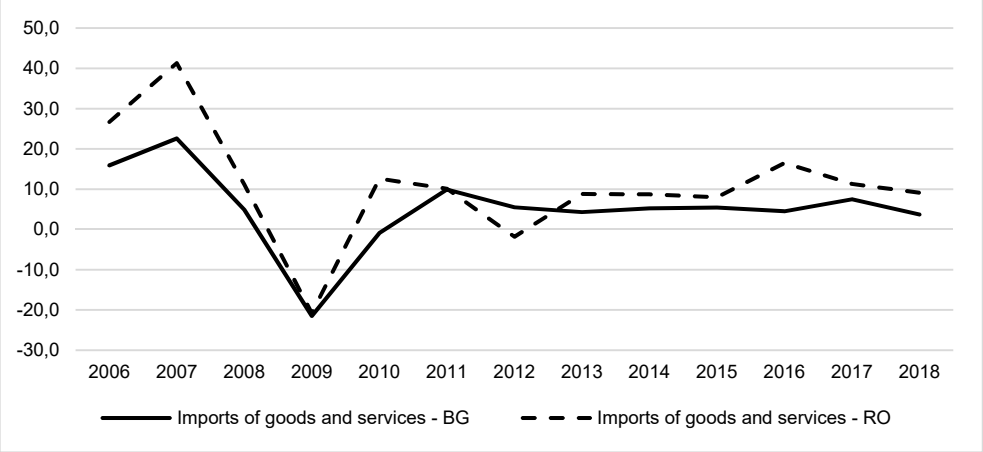


Source. Eurostat. Economy and Finance. National Accounts.

[6] The more limited impact of the crisis on Romania's exports may be partly explained by the depreciation of the Romanian leu (RON) – by 9.4% in 2008 and 13.1% in 2009, respectively. However, it cannot be said that Romania is using the depreciation of its currency to stimulate its exports and reduce imports. Although the downward trend in the currency is constant, it is in the range of up to 2% annually (except for 2012, when it is 4.9%).

Figure 6

Rate of change in the imports of goods and services
in Bulgaria and Romania, %



Source: Eurostat. Economy and Finance, National Accounts.

During the period under consideration, exports and imports in Bulgaria and Romania predominantly follow the general trend of the EU foreign trade flows, but the pace of change is higher – both during growth and in times of decline. In 2018, however, Bulgaria was the only EU country to report a decline in its exports of goods and services.[7] This was entirely due to the drop in the exports of goods, which can be explained by the economic problems of neighbouring countries and major trading partners (Turkey and Greece), as well as by the decline in exports to other neighbouring countries (Serbia and North Macedonia), by the Russian economic sanctions imposed on the EU, which hinder exports, etc.

In both countries, intra-community exports are characterized by a much lower degree of variation than exports to third countries. This applies to the total exports to the EU or to third countries, but also to the individual countries within the two groups, i.e. it cannot be said that fluctuations in exports outside the EU are due to the greater number of trading partners and the presence of those with which smaller and occasional transactions are carried out. A reasonable assumption can be made that companies from Bulgaria and Romania are better integrated into the supply chain with EU partners, which is at the heart of a long-lasting and sustainable relationship. This cannot be said to be true with non-EU counterparties. It should also be noted that intra-community trade is more resilient in times of crisis.

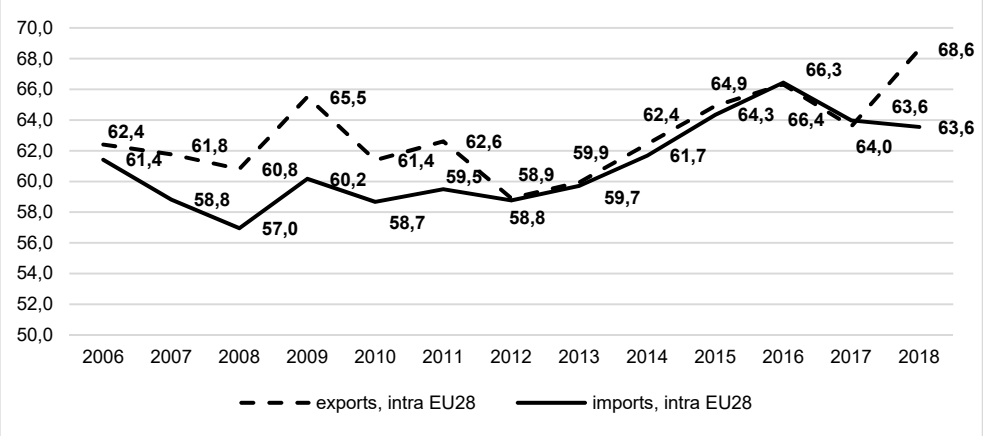
[7] On the dynamics of the product and geographical structure of exports and imports, as well as some of the most important product groups in 2018 see Nestorov, 2019.

Geographical structure of foreign trade

Regarding the geographical structure of foreign trade, there is a clear and growing dependence on other EU countries. The stages of the EU's enlargement have contributed to accelerating the economic dynamics of the Single market, despite the significant imbalances that have been associated with it. In Bulgaria, intra-community trade accounts for about two-thirds of exports and imports, with exports prevailing over imports during the whole period, reaching 68.6% in 2018, compared to 63.6% for imports (Figure 7).

Figure 7

Share of intra-community trade in Bulgaria's exports and imports, %



Source. Eurostat. International Trade.

There are several changes regarding Bulgaria's exports to specific trading partners within the EU. Since 2008, Germany has established itself as the country's leading export partner, replacing Italy. This may be explained, on the one hand, by the prolonged economic crisis in Italy and, on the other, by the construction of production facilities of companies in the automotive sector in Bulgaria, which are subcontractors of German companies. The growing importance of Germany as a trading partner can be illustrated by the following example: in 2007 it formed 10.3% (EUR 1.4 billion) of Bulgaria's total exports, and in 2018 the share was already 14.9% (EUR 4.2 billion). Such a concentration may be considered risky, since in this way the development of the Bulgarian economy depends to a large extent on that of the German one, but at the same time it should be noted that exports to Germany have proved to be relatively sustainable, even during the global financial and economic crisis. Other countries experiencing an increase in the export share are Romania (from 4.9% in 2007 to 8.5% in 2018 and nearly 4 times in nominal terms), the Netherlands and the "Visegrad Four" (Poland, the Czech Republic, Hungary and

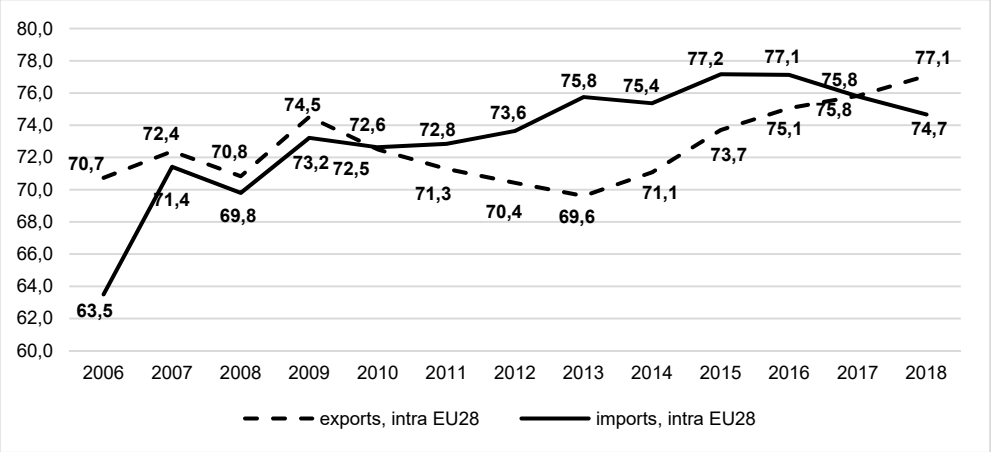
Slovakia). The next countries with a smaller share of Bulgaria's exports are Greece and Belgium. There is no significant change in the other EU trading partners. Regarding exports to third countries, Turkey remains the leader with a large lead, although there is a steady downward trend in its share (from 11.4% in 2007 to 7.6% in 2018), and in recent years exports have also been declining in absolute terms. China and the US are emerging as leading non-EU export destinations, displacing traditional Bulgarian partners such as Serbia and Russia.

Germany has also become a leading trading partner in terms of imports for Bulgaria, displacing Russia, which is the main supplier of crude oil and natural gas of the country. However, frequent changes in energy prices are the reason for fluctuations in the value of imports from Russia. In 2018, Italy was the third largest importer in Bulgaria, but there is a downward trend and soon it is likely to be outstripped by Romania. Although the share of imports from Turkey is increasing slowly, the sharp depreciation of the Turkish lira is likely to accelerate this process.

Romania is much more related to the rest of the EU countries – about three-quarters in terms of both exports and imports. The share of exports and imports fluctuated during the period 2006-2018, but increased overall, reaching 77.1% for the exports and 74.7% for the imports in the last year (Figure 8). Romania, even to larger extent than Bulgaria, has directed its exports to Germany – around and over one fifth since 2014, with exports to Germany exceeding all Romanian exports to third countries in 2018. In 2018, Italy (11.5%), France (7.1%), Hungary (4.9%) and the United Kingdom (4.3%) came next. Bulgaria is also among Romania's leading export destinations (with a share of exports of between 3% and 4%), but not as much as it is in the opposite direction.

Figure 8

Share of intra-community trade in Romania's exports and imports, %



Source. Eurostat. International Trade.

Changes in the product structure of exports

In the years of EU membership, the exports of both countries have undergone similar changes, but they are different in terms of strength and intensity. Both Bulgaria and Romania registered a decline in the share of exports of primary commodities.[8] In 2006, primary commodities accounted for 44.7% of Bulgarian exports (peaking at just over 50% in 2012 and 2013), dropping down to 38.8% in 2018.[9] In nominal terms, however, exports of raw materials for the years during the period under consideration doubled from EUR 5.3 billion to EUR 10.9 billion. The share of primary commodities in exports to third countries decreased (from 58.6% to 48.1%), while exports to other EU Member States remained almost unchanged – with a slight decrease from 36.3% to 35.4% (the share did not variate significantly over the years).[10] The share of primary commodities in the total value of exports follows and is largely determined by the price dynamics of these products on international markets.

In Romania, where the share of primary commodities in total exports is generally much lower than that in Bulgaria – it fell from 20.8% to 17.3%, with a decrease only in the trade with third countries. The share of primary commodities in intra-community trade (13.6%) is significantly lower, more than twice that in extra-EU trade (29.6%). In contrast, the share of exports of finished products (machinery and transport equipment) from Romania is much higher than that of Bulgaria – more than twice, both to EU countries and to third countries (Tables 2 and 3). Romania is attracting investment in companies producing finished goods and is managing to achieve it at a significantly higher corporate tax rate. For example, the automotive industry is traditionally one of the leading industries within the Romanian economy. Romania is a leading car manufacturer in the region of Eastern Europe.[11] The share of car exports to international markets is also significant (over 20%). Romania's geographical location defines it as a distribution centre in the region with easy access to the relatively large markets of Russia, Turkey, Ukraine and Poland. Exports of automotive components also increased significantly (by 30% in 2010). The manufactured components include electrical and electronic systems, tires, cables, steering wheels, gearboxes, safety systems, seats, and more.

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[8] The raw materials are represented by the following groups of products, as categorised by the Standard international trade classification (SITC, Rev. 4) – Sections 0 (Food and live animals), 1 (Beverages and tobacco), 2 (Crude materials, inedible, except fuels), 3 (Mineral fuels, lubricants and related materials), 4 (Animal and vegetable fats, oils and waxes) and Division 68 (Non-ferrous metals).

[9] The dynamics of the raw materials share is largely determined by fossil fuels. Without them, the primary commodities form between 28.2% and 35.9% of the total exports, and there are no particularly large fluctuations in these values.

[10] Other authors also note in their analyses the deterioration in the product structure of foreign trade due to the higher growth in the trade of primary sector products at the expense of processed products, especially regarding trade with third countries. This trend is also evident in imports, but it is much more pronounced in exports and is one of the differences between Bulgaria and the general trends in the EU during the observed period (see Marinov, 2018, p. 63-82).

[11] The country is the successor to two automotive plants – Dacia (Renault division) and Ford (Ford Motor Company). Dacia Duster is the bestselling car model made in Romania.

Bulgaria has a relatively more active position compared to Romania regarding "Manufactured goods classified chiefly by material".[12] The group is with diverse composition (it includes leather, textiles, rubber, paper, iron and steel, and non-ferrous metals) and in most cases the products are not highly processed and are without a high value added. Non-ferrous metals, iron and steel are the main products that participate in the Bulgarian exports of this group, and for most of the period under consideration they form between 60% and 70% of it.

Table 2

Structure of Bulgarian and Romanian exports to EU countries

Product Group	2006		2018		2018 (in EUR mln)	
	BG	RO	BG	RO	BG	RO
Total	100	100	100	100	19,275	51,976
Food and live animals	6.1	2.3	12.2	4.9	2,348	2,554
Beverages and tobacco	1.0	0.1	1.0	1.4	184	721
Crude materials, inedible, except fuels	6.1	3.3	6.5	3.2	1,257	1,648
Mineral fuels, lubricants and related materials	6.6	4.8	5.0	2.3	964	1,208
Animal and vegetable oils, fats and waxes	0.1	0.2	1.0	0.3	195	163
Chemicals and related products, n.e.s.	4.6	3.5	9.4	3.7	1,805	1,914
Manufactured goods classified chiefly by material	32.0	18.8	22.2	16.4	4,273	8,523
Machinery and transport equipment	16.0	32.7	25.3	49.8	4,884	25,872
Miscellaneous manufactured articles	27.6	34.2	16.7	17.8	3,216	9,233
Commodities and transactions not classified elsewhere in ...	0.0	0.0	0.8	0.3	150	140
Primary Commodities	36.3	13.7	35.4	13.6	6,828	7,077
Manufactured goods	63.7	86.3	63.8	86.1	12,297	44,759

Source. Eurostat. International Trade.

Table 3

Structure of Bulgarian and Romanian exports to third countries

Product Group	2006		2018		2018 (in EUR mln)	
	BG	RO	BG	RO	BG	RO
Total	100	100	100	100	8,821	15,458
Food and live animals	5.5	1.9	7.0	10.7	616	1,656
Beverages and tobacco	2.5	0.3	1.6	0.8	140	123
Crude materials, inedible, except fuels	9.3	11.4	6.3	5.9	555	912
Mineral fuels, lubricants and related materials	25.2	22.8	16.2	11.2	1,432	1,736
Animal and vegetable oils, fats and waxes	0.5	0.3	1.3	0.3	118	39
Chemicals and related products, n.e.s.	9.6	10.8	11.7	6.2	1,035	958
Manufactured goods classified chiefly by material	29.1	23.3	25.6	17.0	2,254	2,624
Machinery and transport equipment	10.1	23.2	16.8	39.2	1,486	6,058
Miscellaneous manufactured articles	6.1	4.6	6.1	7.2	540	1,114
Commodities and transactions not classified elsewhere in ...	2.2	1.5	7.3	1.5	644	239
Primary Commodities	58.6	38.1	46.1	29.6	4,067	4,579
Manufactured goods	39.2	60.4	46.6	68.9	4,110	10,641

Source. Eurostat. International Trade

[12] For an analysis of the difference in the commodity structure of foreign trade by major groups of goods for both countries, see Rangelova and Sariiski, 2019.

Similar trends in the dynamics of industrial production exports are observed between Bulgaria and Romania – there is a certain increase in its share in the overall export, with both countries raising their share in exports to third countries, while those to other EU member states remain almost unchanged. However, in Romania, industrial production accounts for a significantly higher share of exports to both the EU and third countries. In addition, in 2018, Romania's industrial output amounted to EUR 55.4 billion, or 3.4 times higher than that of Bulgaria.

It can be noted that the Bulgarian economy retains the established predominant role of commodity exports. The country is emerging as an exporter of mainly low value-added goods. Consumer imports continue to increase significantly (see Nestorov, 2019). Something typical of Bulgaria's exports is that their value added is significantly lower than that in other EU economies, while that of imports is much higher. This shows the high dependence of the country on imports for realization of its foreign economic activity and its significant presence in the global value chains (Panusheff, 2017, p. 219).

Export structure according to its technological level

Along with the increase in the exports of industrial production, the structure of these exports, based on the quality of the labour used, is changing in a favourable direction. The share of labour-intensive and resource-intensive products has decreased significantly – by 13.3 p.p. in Bulgaria and by 12.8 p.p. in Romania for the period under consideration (Tables 4 and 5). The proportion of goods requiring low-skilled labour is also decreasing, with the decrease being more pronounced in Romania.

Table 4

Structure of exports of industrial production from Bulgaria based on the quality of the used labour (in EUR mln and as % of total exports of industrial production)

		2007	2008	2009	2010	2011	2012	2016	2017	2018
Labour-intensive and resource-intensive manufactures	EU28 extra	18.3	15.1	17.0	16.5	16.3	17.0	19.3	16.0	15.3
	EU28 intra	42.9	38.4	40.1	36.0	32.1	32.6	29.1	26.5	24.6
	total	35.6	31.8	34.1	30.6	27.9	28.2	26.7	23.6	22.3
	EUR mln	2,696.7	2,503.2	2,123.6	2,386.9	2,788.7	2,831.4	3,714.1	3,683.8	3,651.6
Low-skill and technology-intensive manufactures	EU28 extra	23.8	17.9	12.7	10.8	10.3	8.2	7.5	15.6	14.2
	EU28 intra	17.0	17.7	12.7	14.1	15.5	14.7	11.4	12.1	13.7
	total	19.0	17.8	12.7	13.2	14.2	12.9	10.5	13.1	13.9
	EUR mln	1,440.3	1,398.6	793.9	1,029.2	1,414.0	1,296.8	1,456.0	2,038.8	2,273.5
Medium-skill and technology-intensive manufactures	EU28 extra	23.9	30.1	27.9	28.6	30.3	31.4	37.2	34.2	33.3
	EU28 intra	25.5	26.1	28.8	31.8	34.0	34.3	37.8	38.7	39.2
	total	25.0	27.2	28.6	31.0	33.0	33.5	37.6	37.5	37.7
	EUR mln	1,894.1	2,142.6	1,782.3	2,418.3	3,297.5	3,357.8	5,240.0	5,840.4	6,193.4
High-skill and technology-intensive manufactures	EU28 extra	33.9	37.0	42.4	44.0	43.1	43.3	36.0	34.2	37.1
	EU28 intra	14.3	17.3	17.9	17.2	17.3	17.4	20.6	21.5	21.3
	total	20.2	22.9	24.3	24.7	24.1	24.6	24.4	25.0	25.2
	EUR mln	1,526.6	1,805.3	1,513.9	1,926.8	2,407.1	2,470.4	3,390.5	3,904.5	4,142.5

Source. Author's calculations based on data from Eurostat. International Trade.

At the same time, in both countries the share of production requiring a workforce with medium and high-level qualification is increasing. Romania is far better represented both as a baseline and at the end of the period under consideration – in 2018 it reached 58.4% compared to 37.7% for Bulgaria. There is also a slight increase in the share of production requiring a highly skilled workforce – it is larger in Bulgaria (standing at 5.0 p.p.) and smaller in Romania (standing at 2.5 p.p.). In both countries, but especially in Bulgaria, the share of this type of products is higher in exports to third countries than in the intra-community exports. However, described processes are more intensive in the trade with the EU than in that with third countries (Tables 4 and 5).

Table 5

Structure of exports of industrial production from Romania based on the quality of the used labour (in EUR mln and as % of total exports of industrial production)

		2007	2008	2009	2010	2011	2012	2016	2017	2018
Labour-intensive and resource-intensive manufactures	EU28 extra	10.0	9.5	9.5	9.1	9.0	10.8	12.6	12.8	11.5
	EU28 intra	36.5	30.3	27.9	25.4	24.6	24.6	21.5	19.8	19.0
	total	30.4	25.4	24.0	21.6	20.8	21.2	19.6	18.3	17.6
	EUR mln	7,281	6,666	5,626	6,444	7,391	7,490	9,157	9,381	9,723.3
Low-skill and technology-intensive manufactures	EU28 extra	36.4	32.2	28.6	28.3	22.8	21.7	18.4	17.4	17.2
	EU28 intra	14.4	15.2	11.4	10.4	11.9	11.3	9.1	9.5	8.9
	total	19.5	19.2	15.0	14.6	14.5	13.9	11.1	11.1	10.5
	EUR mln	4,659	5,041	3,515	4,366	5,159	4,894	5,169	5,688	5,829.9
Medium-skill and technology-intensive manufactures	EU28 extra	35.6	36.7	38.5	35.9	39.3	48.6	54.4	54.5	56.1
	EU28 intra	39.3	40.6	44.8	46.0	46.3	47.4	56.4	56.6	59.0
	total	38.4	39.7	43.5	43.6	44.6	47.7	56.0	56.2	58.4
	EUR mln	9,207	10,406	10,173	13,011	15,843	16,857	26,145	28,749	32,377.3
High-skill and technology-intensive manufactures	EU28 extra	18.0	21.6	23.4	26.7	28.8	18.9	14.7	15.3	15.3
	EU28 intra	8.9	13.0	15.1	17.4	16.6	15.6	11.5	12.8	13.1
	total	11.0	15.0	16.8	19.5	19.5	16.4	12.2	13.3	13.5
	EUR mln	2,629	3,943	3,942	5,833	6,939	5,804	5,688	6,800	7,469.5

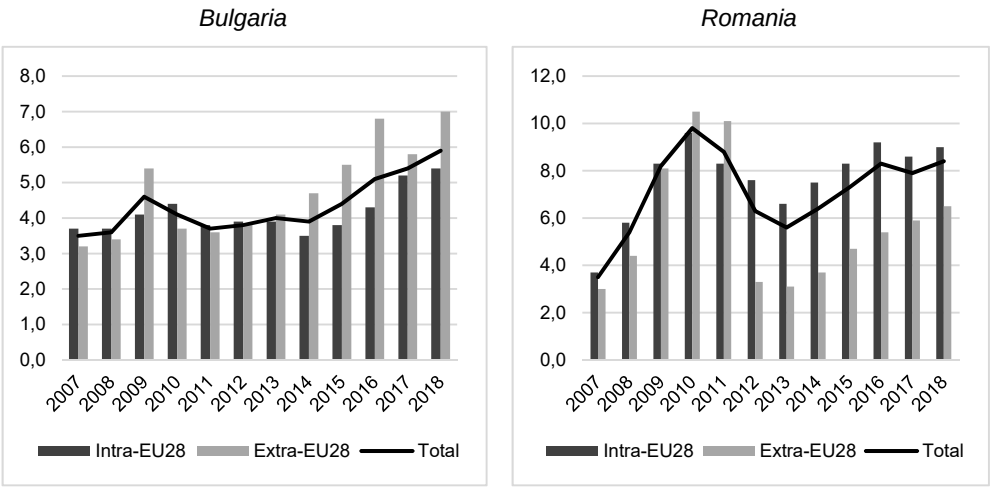
Source. Author's calculations based on data from Eurostat. International Trade.

Given the important role of high technologies in achieving economic growth, the size and dynamics of high-tech exports and their share in the total exports of the two countries is of particular interest (Figure 9). An appropriate indicator of this is its relative share in the total exports of the country. At the start of EU membership, the two countries had an equal share (3.5%), which is among the lowest in the EU. For Bulgaria, it remained at this level until 2014, and afterward increased to 5.9%. For Romania, this share grew faster, reaching 8.4% in 2018. Despite the increase, this share remains among the lowest in the EU-28, with the EU average standing at 16.1% in 2007 and at 17.9% in 2018. For comparison, the top performing Member States are Ireland (34.7%), Malta (25.6%), the Netherlands (21.3%), France (20.5%), etc., whose respective shares are many times higher than those in Bulgaria and Romania.

In Bulgaria, the share of high-tech exports has been higher in exports to third countries – in 2009, and especially in recent five years. A positive feature of Bulgaria's high-tech exports is that they are sustainable and did not decline even during the global financial and economic crisis. In Romania, as compared to Bulgaria, the higher level of this share is clearly outlined, with particularly high shares during the last financial and economic crisis (2008). Another feature is that Romania has a significantly higher share in intra-community trade than Bulgaria, where the share to third countries is predominant (Figure 9).

Figure 9

Share of high-tech exports in total exports of Bulgaria and Romania, %



Source. Eurostat. International Trade.

High-tech exports depend on the cost of R&D and the creation of a favourable environment for innovation. In terms of R&D expenditures in GDP, the two countries have been among the last in the EU (0.50%) ever since the 1990s. A relative increase in spending has been observed since 2014, already in the context of EU membership. The share of this type of expenditure in GDP for the 2014-2017 in Bulgaria is higher, ranging from 0.75% to 0.96%, while for Romania it is in the range between 0.38% and 0.5%.[13] However, both countries are far behind the average level of expenditures on R&D in GDP in the EU-28, which is much higher (over 2%).

[13] It is an entirely different matter that the Europe 2020 Strategy envisages investment in R&D in the EU to reach 3% of GDP (by 2020) while the target for Bulgaria is 1.5%. However, it is obvious that this target will not be achieved.

Conclusion

Any economic comparison between Bulgaria and Romania is interesting because the two countries started their EU membership at almost the same base level, but have achieved different results on some key indicators over the last 12 years. Overall, this translates into a faster increase in the level of economic development in Romania as compared to Bulgaria. In the authors' view, under the current conditions the difference will become even more apparent.

An attempt was made to find the reason behind the higher GDP growth rate in Romania through the prism of the foreign trade structure. Some of the main conclusions are, as follows:

●With the higher economic growth registered in Romania, the final household expenditure increases faster than that in Bulgaria as an expression of the faster improving purchasing power of the population. During the period under consideration (2006-2018) there was a positive growth in investments in Romania, while in Bulgaria there was a decrease. In this situation, the lack of investment in Bulgaria has a negative impact on long-term economic growth.

●The export sector, which is considered to be the engine of economic growth in Bulgaria, also has significantly weaker positions than those of Romania. In the years of their EU membership, Romania's exports of goods have increased significantly more than those of Bulgaria, and the exports of services from Romania have increased while those from Bulgaria have decreased (in real terms).

●Bulgaria has a much more open economy than Romania. As a result of the integration with the EU countries, an increase in the volume and share of intra-community trade in the overall trade flows of the two countries countries has been registered, with that of Romania being more pronounced.

●In Romania, the share of primary commodities in total exports is significantly lower than that in Bulgaria. By contrast, the share of exports of manufactured goods from Romania is much higher than that of Bulgaria. The high share of trade in primary sector products at the expense of processed products is typical for Bulgaria's imports, but even more so for its exports. This is an indication of the deepening specialization of our country in primary sector goods with lower value added (whose prices on the international markets tend to fluctuate).

●Along with the increase in the exports of industrial production in both countries, the structure of industrial exports based on the quality of the used labour for its production is changing in a favourable direction. The share of labour-intensive and resource-intensive products, as well as those employing low-skilled labour is significantly reduced, with the decrease also being more pronounced in Romania. On the other hand, the share of exports whose production requires middle- and high-skilled labour is increasing. For both countries, the group of products requiring a medium level of qualification of the workforce is predominant, with Romania performing far better – standing at nearly 60% in 2018, compared to nearly 40% for

Bulgaria. Regarding the share of production requiring high-skilled labour, Bulgaria is better represented with about 2 times higher share than Romania – standing at 25.2% and 13.5%, respectively, in 2018.

●The role of high technology in achieving economic growth, measured by the share of high-tech exports in total exports, shows that at the beginning of their EU membership the two countries had an equal share (3.5%), which is among the lowest in the EU. It has grown over the years but remains among the lowest in the Union. In Romania, the share of intra-community trade (which also shows a greater dependence on the EU) is significantly higher than in Bulgaria, where the share of exports to third countries is predominant. This indicator is determined by the overall innovation policy in the countries. Unfortunately, both countries remain among those in the EU-28 with the lowest share of GDP expenditure on R&D, which also predetermines their limited capabilities for the production and export of high-tech and high value-added products.

Despite the reforms undertaken as part of their accession process, both countries are likely to remain among the least developed economies in the EU-28. However, the Romanian government's long-term strategy, aimed at providing a better environment for investors by creating an adequate institutional framework, is proving favourable. In a relatively short time period, the country has managed to achieve a significant improvement in its export structure (in terms of its value added) and higher growth rates.

Bulgaria needs to develop perspective industries and activities that would lead to the production of products with higher value added. Moreover, the claimed advantage for Bulgaria of having a low level of unemployment does not equate to an increase in labour productivity, because the workers are mainly involved in activities with low value added.

Adequate management mechanisms could aid in the development of competitive national productions of higher value-added goods and services that can be traded both within and outside the EU.

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