



BULGARIAN INTERNATIONAL TRADE BEFORE AND AFTER EU ACCESSION

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Abstract: The aim of the paper is to analyse the changes in the dynamics of Bulgarian international trade before and after EU accession. To achieve this it studies the main trends in the dynamics of the value and volume of trade flows, the openness of the economy, the value and share of trade with other EU member states and third countries and the terms of trade.

Keywords: Trade flow dynamics, EU accession, openness of the economy, terms of trade

INTRODUCTION

International trade as an expression of the external sector of an economy is indicative of its openness, its participation in the international division of labour, its international trade specialisation and competitiveness. In theory integration processes stimulate foreign trade, especially within the integration community, contribute to deepening the process of opening up the economy and improve the terms of trade for the participants, but at the same time create prerequisites for strengthening the negative effects of crises for the participating economies.

The purpose of this study is to analyse the changes in the dynamics of foreign commodity trade in Bulgaria in the period before and after the country's accession to the EU in order to assess its impact on the direction of the country's trade. To achieve this goal it answers the following questions: what changes have occurred as a result of Bulgaria's membership in the openness of the Bulgarian economy; what are the general trends in the dynamics of the total trade of the country as value and quantities; what dynamics show exports and imports; what is the value and the share of trade with other EU Member States and with third countries; what is the commodity structure of intra- and extra-EU trade; how do terms of trade change.

In order to answer the research questions, a comparative approach was chosen in which the data for Bulgarian commodity trade are compared with those for the EU (total) and for the catching-up economies in the Union – the Central and Eastern European countries (Lithuania, Latvia, Poland, Romania, Slovakia, Slovenia, Hungary, Croatia and the Czech Republic).

The period under review is 2004–2016 and has been chosen on the one hand to have a broader benchmark before the accession of Bulgaria to the EU and on the other hand to reflect the changes caused by the EU membership of the Central and Eastern European countries used for comparison. All data used are own calculations based on Eurostat import and export statistics (EU trade database since 1988 by SITC [DS-018995], last visited on March 31, 2017).

TRADE DYNAMICS

For the period 2004–2016 the total value of Bulgaria's foreign trade grew almost 2.5 times – from 19.6 to 49.5 Billion Euro, with much of this increase occurring even before Bulgaria's accession to the EU – in 2007 the value of commodity exchange if the country is 35.4 Billion Euro (Figure 1). There is a significant decrease due to the Global financial crisis – by nearly 12 Billion to 28.6 Billion in 2009, followed by a sharp increase to 46.2 Billion in 2012, while by the end of the period there is a gradual slight increase. A similar but smoother trend is the increase in the volume of traded goods starting from 36 Million tons in 2004, increasing to 44 Million tons in 2008, down to 36 Million tons in 2009, followed by a gradual steady increase to 53.7 Million tons in 2016.

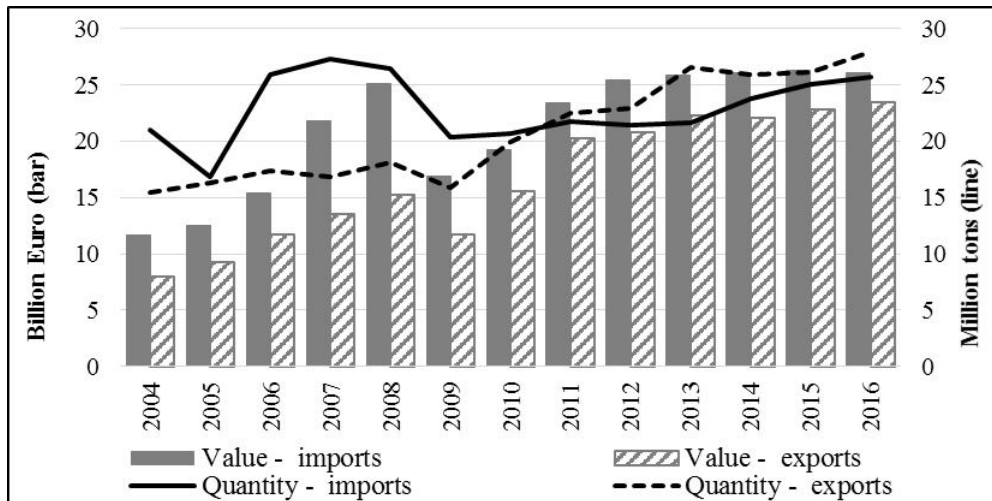


Fig. 1. Dynamics of Bulgarian international trade (2004–2016)

Similar trends are observed in imports and exports. The increase up to the peak of 2008 is characterised by a faster growth rate of imports than exports – to 25 and 15 Billion euro respectively, but the 2009 drop is more serious in imports, with a total decrease of around one third, while the decrease is lower in exports – by 23% compared to 2008. During the whole period of Bulgaria’s membership in the EU after the Global crisis, the value of exports grows faster than that of imports, with the two indicators reaching 23.5 and 26 Billion Euro in 2016. This trend is even more obvious in the volume of trade flows where exports become more than imports after 2011, while imports still (in 2016) have not reached their quantity of before the global crisis. In 2016, Bulgaria exports 28 Million tons and imports 25.7 Million. In the period of the country’s membership in the EU, the first indicator has grown by over 11 Million tons while the second has decreased by just over 2 Million tons.

Trends regarding the value of total commodity exchange in the EU and catching-up economies of Central and Eastern Europe (CEE), which are observed during the period under review, are similar to those for Bulgaria (Figure 2). The decrease in total trade in 2009 in both cases is more gradual than in Bulgaria (a decrease of 20% for the EU, 22% for CEE and 30% for Bulgaria compared to 2008). The overall increase in the value of trade flows for the period of the catching-up economies is similar but slightly lower than in Bulgaria, and much lower in the EU.

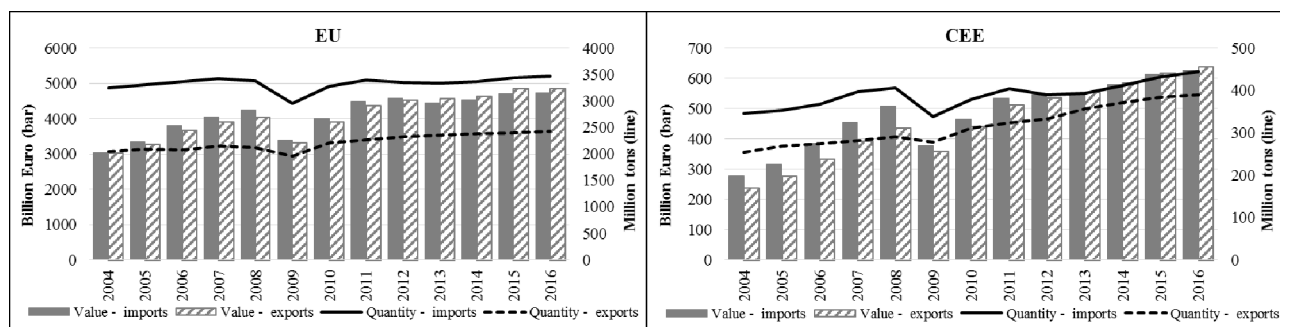


Fig. 2. Dynamics of trade of the EU and CEE countries (2004–2016)

In both the catching-up economies and the EU the value of imports and exports is closer to that of Bulgaria, with that of exports growing faster over the period 2004–2016, with exports even outpacing imports in the last three years of the period. However, the rate of increase in exports is faster for Bulgaria (2.93 times from 2004 and 1.74 times from 2007) compared to the one in the CEE countries (2.6 and 1.6 times respectively) and especially to the EU (1.6 and 1.2 times respectively).

The situation in the volume of trade flows is different – in the EU it is relatively constant (both the total, as well as in terms of imports and exports) with a slight increase – from 5.3 to 5.9 Billion tons, with a decline only in 2009. In the new Member States, there has been an increase in volume during the observed period, but the changes are not so sharp, with a total volume of 835 Million tons in 2016. In both the EU and the catching-up economies, unlike in Bulgaria, the volume of imports remains higher than that of exports throughout the period 2004-2016.

The faster increase in the value of Bulgarian exports leads to a constantly decreasing trade account deficit – when Bulgaria entered the EU it is close to – 8.4 Billion Euro, while in 2016 it is – 2.6 Billion (Figure 3). The trend for a faster growth in exports, observed in the EU and the catching-up economies of CEE has led to a negative net export value going to positive, with its value reaching in 2016 119 Billion and 11.7 Billion Euro respectively.

On the other hand, one observes different trends in the quantity of trade flows – while in the EU and CEE countries net exports remain negative (–1 Billion and –55 Million tons respectively) , while in Bulgaria the volume of exported goods is higher than that of imported ones, thus net exports reaching 2.3 Million tons in 2016.

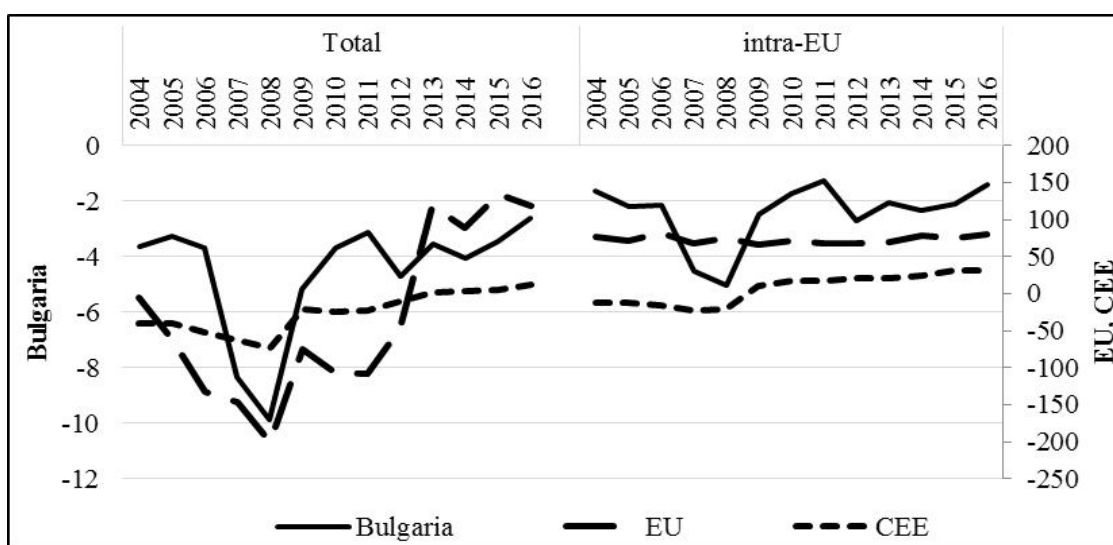


Fig. 3. Net exports (2004–2016, Billion Euro)

OPENNESS OF THE ECONOMY

A traditional indicator in analysing foreign trade is the “openness of the economy”. It represents the share of international trade of the economy’s GDP and serves as an indicator of the degree of integration of a country’s economy into the global economy. The openness of the economy is a measure of the degree of international interconnection of the national economy. By examining the degree of openness of the national economy one could draw conclusions on the participation of the national economy in the international division of labour, its integration in global economy, as well as on the dependence of the national economy on the processes in the global economy.

In order to characterise the degree of openness of the economy the analysis here uses the indicators “export quota” – the ratio of exports to GDP and “international trade quota” – the ratio of international commodity trade to GDP.

The dynamics of the indicator “international trade quota” for Bulgaria is volatile over the period under review – from 2005 to 2008 there is an increase (from 92% to 108%), then as a result of the Global crisis its value drops to 76% in 2009. From 2010 to 2013 there is another increase to 114%, after which the value of the indicator decreases by about 4 percentage points per year, reaching 104.6% in 2016 (Figure 4). Thus, for the whole period 2004-2016, the share of total trade in the country’s GDP increased by almost 11 percentage points, but due to the higher value of the indicator in 2007, the Global crisis thereafter, and especially after the decline in the last two years, for the period of Bulgaria’s membership in the EU the share of trade in goods in GDP decreased by almost 4 percentage points.

The “export quota” indicator shows different dynamics – here too there is a significant drop in 2009 (with 10 percentage points, to 31%), followed by a significant increase to 53% in 2013. In the last few years there is a decrease, albeit weaker – by about 1 percentage point per year, thus in 2016 exports account for 50% of Bulgaria’s GDP. The total increase for the period 2004-2016 is 12 percentage points, and within the period of Bulgaria’s EU membership there is also an increase of 8 percentage points.

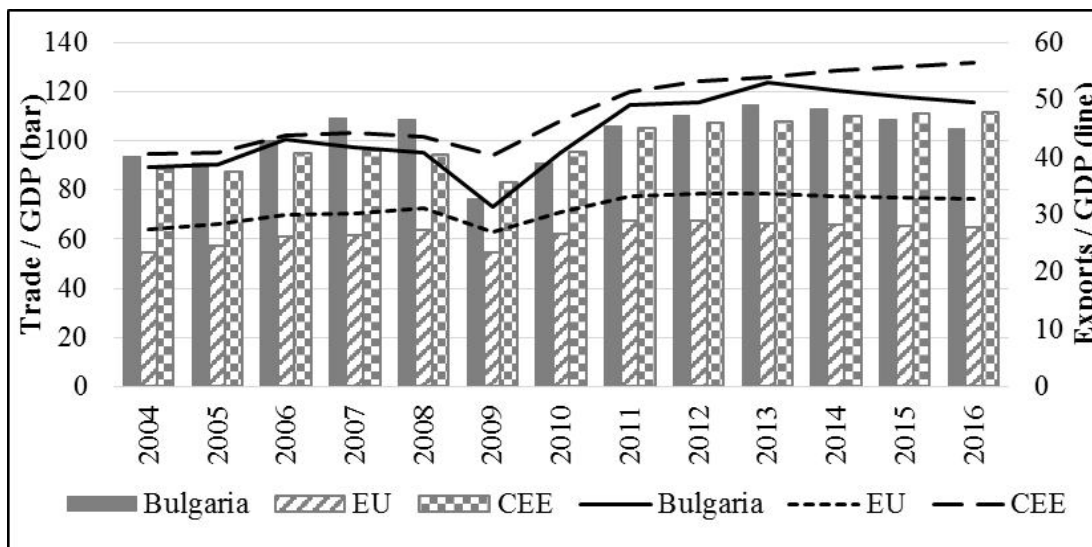


Fig. 4. Trade to GDP ratio (2004–2016, %)

The values of both indicators for Bulgaria over the whole surveyed period are much higher than those for the EU. In “international trade quota” Bulgaria stands ahead of the EU by around 40 percentage points. The decline in the EU as a result of the Global crisis is smoother, while in recent years the value of this indicator for the EU is almost constant. On the “export quota” indicator the EU decrease is also smoother than Bulgarian (from 31% in 2008 to 27% in 2009), but the subsequent increase is much faster for Bulgaria, thus the difference with the EU increases to almost 20 percentage points in 2013 and is 17 percentage points in 2016.

When the catching-up economies of CEE both total trade as well as exports take up a more substantial share of GDP in 2016 (112% and 56% respectively). For the latter that is characteristic for the whole period under review, while in “international trade quota” CEE economies catch up with Bulgaria during the Global crisis, while over the last three years they even outpace it.

INTRA-EU TRADE

When considering the dynamics of the share of the intra-Community trade of Bulgaria for the period 2004–2016, one could identify two distinct sub-periods. From 2004 to 2011 the share of trade with EU countries remains relatively the same – 58-61% of the total trade flows of the country, with no significant difference as a result of Bulgaria’s accession. The only year in which there is a sharp increase in the share of intra-EU trade (from 58% to 62%, the highest share for the whole period) is 2009 – obviously as a response to the Global financial crisis that started in 2008. After that the share stabilises again around 60%. Over almost the entire period after 2004, the share of intra-EU exports exceeds that of imports by 2–5 percentage points, with the exception of 2005 and 2006 (when imports are 1-2 percentage points higher than exports) and in the last two years the share of both indicators is almost equal due to the sharp decline (almost 4 percentage points) in the share of Bulgaria’s exports to the EU (Figure 5). Since 2012, the three indicators – the share of total trade, imports and exports in the EU are almost equal over the years, with a general trend of steady growth (by around 1 percentage point per year), reaching their highest values (67.2%, 66.5% and 67.9%, respectively) in 2016.

The overall trend in intra-Community trade is similar in the EU, but with more gradual changes, with its share being lower than in Bulgaria, reaching 64% in 2016 (Figure 5). In the catching-up economies of Central

and Eastern Europe, the share is higher – 78% in 2016, and although exports have seen some decline over the period as a whole, the share of exports to the EU remains very high – nearly 80% in 2016.

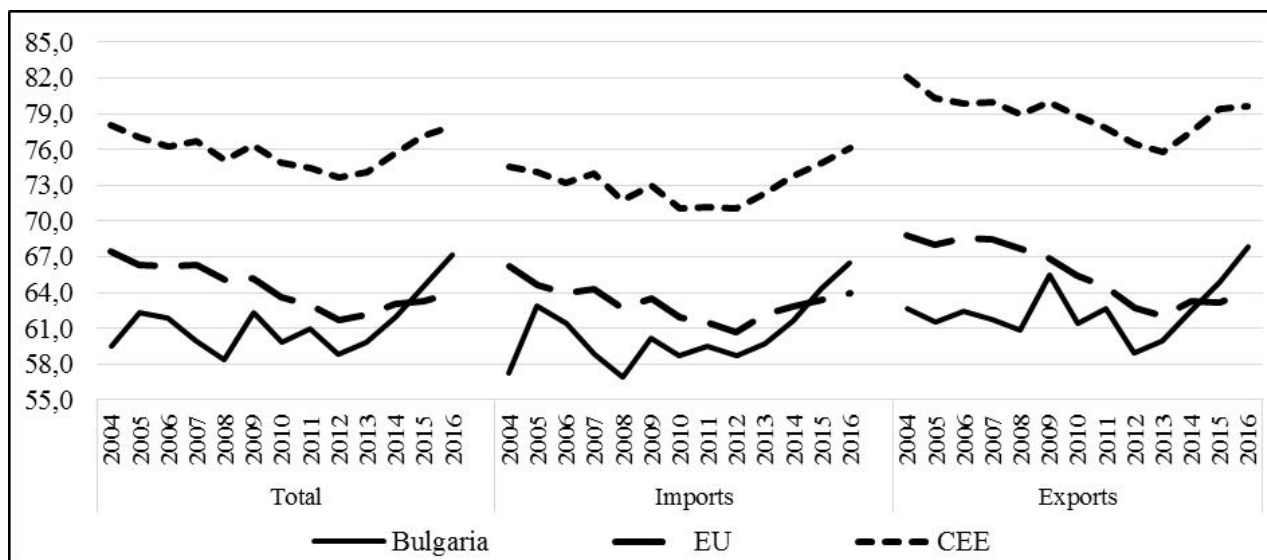


Fig. 5. Share of intra-EU trade (2004-2016, %)

Concerning trade within the EU, one should note the serious reduction of the deficit in Bulgaria’s net exports, which was recorded during the period under review and especially during the country’s membership in the Union – from –5 billion Euro in 2007 to slightly below –1 Billion in 2016 (Figure 3).

COMMODITY STRUCTURE OF TRADE

For the calculation of the commodity structure of trade is used Eurostat’s methodology, according to which the primary sector products include commodity groups of the Standard International Trade Classification 0 (food and live animals), 1 (beverages and tobacco), 2 (crude materials, inedible) (mineral fuels, lubricants and related materials), 4 (animal and vegetable oils, fats and waxes) and 68 (non-ferrous metals). The processed products are all other commodity groups without group 9 (goods and transactions, not elsewhere specified).

As goods and transactions, n.e.s. account for a very low share in the trade flows of Bulgaria, the EU and the CEE countries (1–3%), the analysis uses the share of primary commodities in trade as indicative of the processed products (the remainder up to 100%).

In Bulgaria, the share of primary sector products in the country’s total commodity trade almost doubles from 2004 to 2012 (by a total of 22 percentage points) when it reached 40.7% (Figure 6). In the following years there is a steady decline, thus in 2016 primary sector products occupy 29.8% of the total trade flows of the country – almost the same share as during Bulgaria’s accession to the EU in 2007. A similar trend is observed in exports, where, however, the share of primary sector products is even higher in the base year 2004 (23%), and the increase to 2012 and the subsequent decline are lower.

It is noteworthy that in the EU and the CEE countries changes in the share of primary sector products in both trade and exports are similar to those in Bulgaria, but the changes are much smoother – there is no sharp increase as the observed in Bulgaria for 2004-2012. In 2004 the share of primary products in the trade of Bulgaria, the countries and CEE and the EU is almost equal. In the EU, primary products account for 1/5 to 1/4 of total trade flows (19% in 2016) and 15-20% of exports (16% in 2016) and for CEE the share is even lower – 16-20% of trade (16% in 2016) and 14-18% of exports (14.7% in 2016). Both in the EU and in the catching-up economies, there is a 1 percentage point total increase relative to 2004, but also a 1 percentage point decrease compared to 2007.

The observed differences are even greater regarding the share of primary products in Bulgaria’s trade with non-EU third countries – here the share also doubles until 2012, reaching 58% of the total trade flows, then it declines to 42.5% in 2016. Here, Bulgaria starts at the same level as the catching-up economies from

CEE in 2004, but while they approach the average EU share (20-28%, 19.5% in 2016), Bulgaria is moving away from it.

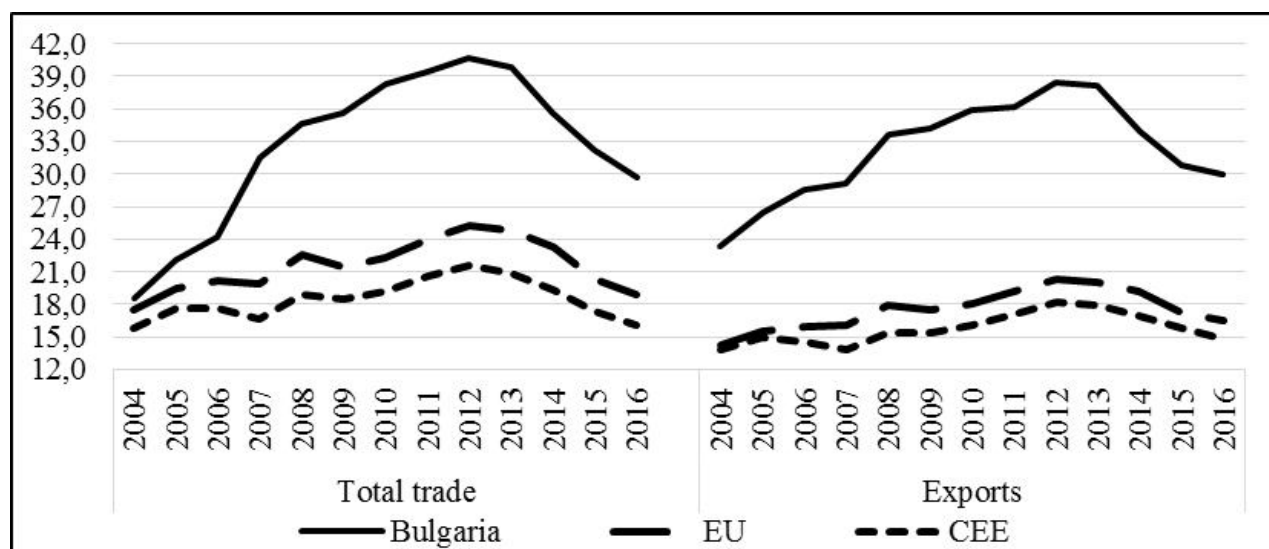


Fig. 6. Share of primary products in international trade (2004–2016, %)

The serious presence of products in the primary sector is even clearer when considering exports to third countries where their share of Bulgarian exports is 2-3 times higher than that of the EU and the CEE countries throughout the observed period – in 2016 it is 40.6% of Bulgarian, 13.3% of EU and 16.7% of catching-up economies exports.

TERMS OF TRADE

The indicator “terms of trade” represents the ratio in which one commodity is exchanged for another on the global market. It can express the relationship between prices, between quantities or between a combination of both in an exchange. One of the most commonly used indicators for measuring terms of trade in international economics is the “net barter terms of trade” – the ratio between the export price index and the import price index. This indicator shows how many units of foreign goods can be imported per one unit of export income, i.e. how many import goods can be purchased per one unit of export goods. If the prices of the exported goods grow faster than those of the imported ones or are reduced less, the terms of trade improve and the benefits (profit) from trade grow. When the prices of imported goods rise faster than these of the exported, the terms of trade deteriorate and the trade advantage for the country decreases.

For the purposes of this analysis, terms of trade are presented as:

$$[(QI_0 * PI_0) / (Q\tilde{O}_0 * P\tilde{O}_0)] / [(QIn * PIn) / (Q\tilde{O}n * P\tilde{O}n)], \quad (1)$$

where QI_0 represents the quantitative import volume for the base year; PI_0 – the import value for the base year; QX_0 – the quantitative export volume for the base year; PX_0 – the export value for the base year; QIn – the quantitative import volume for the relevant year; PIn – the import value for the relevant year; QXn – the quantitative export volume for the relevant year; PXn – the value of exports for the respective year. Three different base years have been adopted for calculating the terms of trade index – 2004, 2007 and the previous year.

There are wide variations in the terms of trade of Bulgaria, calculated on the basis of change over the previous year (Figure 7) – starting from a serious advantage in exports (index value is 141) in 2005, in the next two years the terms of trade worsen (to about 70), then increase again until 2010 (144), then worsen to 87 in 2014, and in the last two years the again improve – in 2016 the index value is again positive, reaching 108. No such great fluctuations are observed in the EU and the CEE countries – the value of the index is around 100

throughout the period with the exception of a few years, when it is slightly higher (2009, 2012 and 2013), at the end of the period being neutral again (100).

With 2004 as base year there is a serious improvement in Bulgaria's terms of trade – here one also observes a decline in 2007–2008 and 2013–2014, but the general trend is positive and at the end of the period the index value reaches 194, which is 53 points higher than the index of CEE and almost 80 points higher than the one of the EU. These differences are even more serious when the base year is 2007 – terms of trade for Bulgaria are positive throughout the period, with the value of the index reaching 257 in 2016 – more than 110 points more than then that of CEE and almost 140 more than the index of the EU.

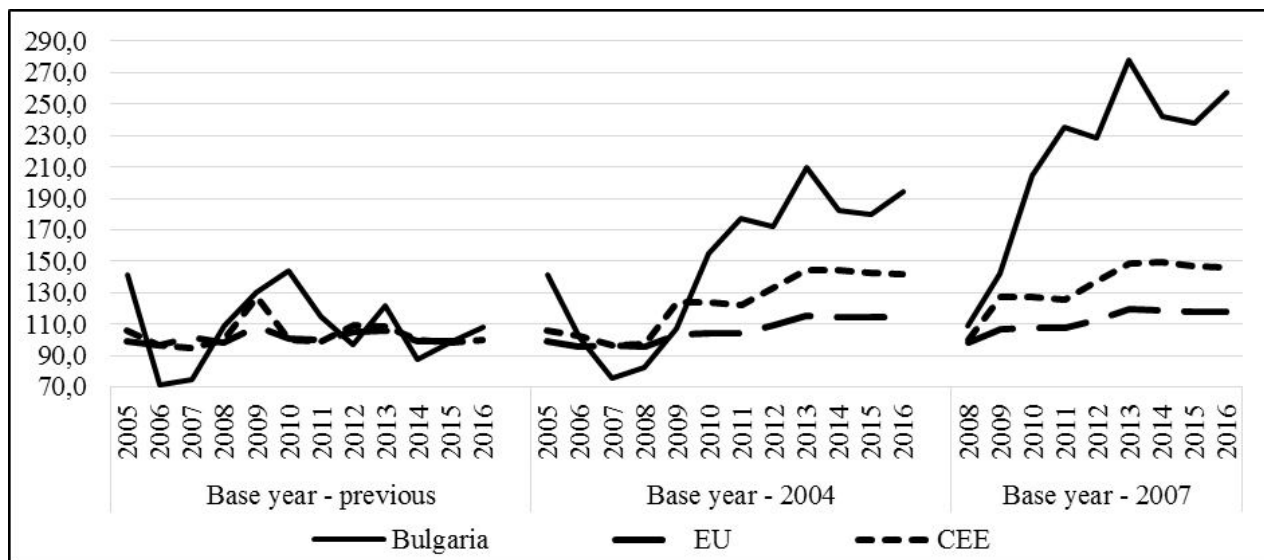


Fig. 7. Terms of trade index (2004–2016)

The significant improvement in terms of trade for Bulgaria in the EM membership period means that the country manages to accumulate more capital with the help of its exports than it spends on its imports.

CONCLUSION

The analysis shows that in general Bulgaria's EU accession has a positive impact on the development of the country's international trade relations.

Within the period under review Bulgarian international trade is dynamic – the value of total trade increases with 153%, with exports growing faster than imports (respectively with 194% and 124%). The increase in the value and volume of trade flows are significantly higher regarding intra-EU trade, where the value of total trade increases with 186%, of exports – with 218% and of imports – with 161%, while extra-EU trade increase is slower (respectively 105%, 153% and 75%).

The analysis confirms the hypotheses that the volume and value of foreign trade commodities are expanding, as well as the value and share of intra-community trade in the country's trade flows. The country's economy is becoming more open and fully involved in global trade relations, especially in terms of exports, which are increasing both in nominal terms and in comparison with the EU as a whole and with the other catching-up economies of Central and Eastern European Union Member States. Terms of trade in terms of the country's overall trade are improving, Bulgaria's growth in this indicator being much higher than both the EU average and the catching-up economies. One could assess as positive the fact that in Bulgaria the impact of the Global financial crisis and the Eurozone crisis is felt but is weaker than in the EU as a whole and it does not affect all aspects of foreign trade relations which somewhat rejects the hypothesis that participation in integration processes creates prerequisites for strengthening the negative effects of crises for participating economies.

On the other hand, despite the increase in the value and volume of trade flows, especially within the EU, the strengthening of the openness of the economy and the improvement of terms of trade, there is a deterioration in the commodity structure in terms of the higher growth of trade in primary sector products, especially

regarding trade with third countries. This trend is also observed in imports, but is even more pronounced in exports. This could be seen as an indicator of Bulgaria's deepening specialisation in primary sector products, which may have a negative impact on the country's economy in the future as such goods are generally with lower value added and their prices on international markets are more prone to sudden fluctuations.

Increasing exports and opening up to new markets is a possible alternative to create good positions in foreign trade, especially in the context of globalising markets and increased international competition. Deepening and expanding international trade relations can be both a key factor in finding different perspectives for the Bulgarian economy and a catalyst for its development. In this regard, Bulgaria should seek opportunities to realise its production not only on the European, but also on other major markets. The government needs to take active measures to inform Bulgarian business and to support it so that the opportunities available within the EU's Common Trade Policy can be maximally used by Bulgarian companies.

As a small, highly open economy participating in a highly developed integration community, Bulgaria does not have too many opportunities to produce large volumes of products and hence to achieve economies of scale in its potentially competitive products. To avoid the marginalisation of the country from the perspective of international trade – trade only with the large EU market, with goods and services with low value added, which in fact benefits the big producers in the bigger Member States, one has to carefully selected with the help of the right analytical tools a limited number of competitive national industries for manufactured goods and services with high value added which could be traded both within and outside the EU. In order to pursue such a policy the government should take consistent and active measures – both domestic – to encourage such industries, and commercial – to impose the products of these industries on potential foreign markets, as well as to responsibly, effectively and actively participate in the development of the trade policy of the integration community itself, thus protecting our national interests.

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