ACTA SCIENTIARUM POLONORUM *Oeconomia 10 (3) 2011, 13–24*

BULGARIAN FOOD INDUSTRY GROWTH AND TRADE WITH BRIC COUNTRIES

Dimitar Blagoev, Nikolay Sterev, Diana Kopeva
University of National and World Economy

Abstract. The Food and Beverage Industry is an attractive and a leading sector in Bulgarian industry. The Bulgarian Food and Beverage Industry (BFBI) has traditionally been an export-oriented. The biggest importer of food and beverages in Bulgaria is Brazil, followed by Russia, China and India. Continual increase of trade relations importance with BRIC countries, especially in food and beverages, has significant impact on the sectors dynamics. The paper aims to analyze the industrial dynamics of the Food and Beverage Industry in Bulgaria and the role of trade relations with BRIC countries, namely Brazil, Russia, India and China, on it. Bulgarians' trade balance with these countries is negative. To overcome these negative trends for the sector it is necessary to increase the competitiveness production, and to rely on quality and standardized production, for development of new market niches.

Key words: Food Industry, Industrial Growth, Trade, Bulgaria, BRIC countries

INTRODUCTION

The Food and Beverage Industry is an attractive and a leading industrial sector of Bulgarian economy. A favourable climate and natural resources have served as a foundation of the sector's development. This industry is traditional and has some unique products that are competitive on the international market.

The Bulgarian Food and Beverage Industry (BFBI) has been traditionally an export-oriented industry. During the period of centrally planned economy (CPE) it blossomed under the conditions of COMECON markets. There were enough foreign markets to implement large-scale production, there was a relatively developed domestic market, and

Corresponding authors – Adres do korespondencji: Dimitar Blagoev, Nikolay Sterev University of National and World Economy (UNWE), Department of Indutrial Economics; Bulgaria, Sofia 1700, Student town "Hristo Botev"; e-mail address: dmblagoev@abv.bg; sterew@abv.bg; Diana Kopeva University of National and World Economy (UNWE), Department Economics of Natural Resources; Bulgaria, Sofia 1700, Student town "Hristo Botev"; e-mail address: diana_kopeva@yahoo.com

there was full vertical integration (agriculture – food processing – packaging – marketing and trade) within the former operating structures [Kopeva, 1997].

In the last decade of the 20th the BFBI continued to be an example of a typical factor-driven industry. The only sources of comparative advantages are a very favourable climate, highly fertile soil, high-quality agricultural production, low labour cost, and a skilled and qualified labour, well equipped processing factories. Slowly and steady in beginning of the 21st, BFBI become an investment-driven industry, introducing a market approach, embarking upon positive return on investment, market-based competition between firms, steady and reliable relationships with supporting industries, absence of monopolies, innovations and re-inventing old markets. Therefore, the challenge in front of the BFBI is to continue its development and to strengthen already achieved positions, led by competitive strategies implemented on firm and sector levels. After becoming part of the EU, before the BFBI are introduced new opportunities and new requirements.

The BFBI is an important manufacturing subsector. It is dominant in the Bulgarian manufacturing sector and plays a central role in the national economy. Its contribution to the GVA is stable in last decade and is around 14.8% (in 2008). The GVA has been constantly annually increasing by 40% since 2005. The food and drink sector includes over 5300 companies. The BFBI is composed of a diverse range of companies from SMEs to large companies. The sector contributes to 16.5% (in 2007) of the sector's employment. BFBI contributes to the extra EU-27 trade by 0.4% (in 2009). The trade balance of food and beverage products is positive and it accounted 43 million EURO in 2009, tracing significant drop by 83% from 2008. [EUROSTAT, 2011]. Despite that huge decline in volume, there are no changes in the final export destinations and importing countries. In general, the biggest trading third countries partner is Russia. The share of export and import increased in the year 2010 respectively by 53.1% and 33.4% in comparison of 2009. China is the second important trade partner, followed by Brazil and India. The biggest importer of food and beverages in Bulgaria is Brazil, followed by Russia, China and India. Constantly increasing importance of trade relations with BRIC countries, especially in food and beverages, have significant impact on the sectors dynamics.

The paper aims to analyse the industrial dynamics of the Food and Beverage industry in Bulgaria and the role of trade relations with BRIC countries, namely Brazil, Russia, India and China, on it. The paper has following structure. Section 1 is introduction stressing on the role and importance of the BFBI. The analysis of production and turnover dynamics of FBI is given in Section 2. In Section 3 it is analysed dynamics of trade of food and beverages and the role of BRIC countries. Conclusions are given in Section 4.

PRODUCTION AND TURNOVER DYNAMIC OF BFBI

To understand the development of BFBI, we had to identify the basic factors that drive industrial changes:

- The change of consumers' needs. Consumers have changed their buying preferences for the last decade. Now they buy more high quality products at higher prices instead of bulk of cheap low quality ones.

- The change of technological requirements. Consumers prefer to buy bio-products. The tendency is to produce more green products than ever have been produced.

The role of the factors above is based on the food and beverage features:

- Food manufacturing depends on the quality of raw materials from agriculture. Structural changes in agriculture in recent years have a negative effect over the food production. The negative effect is result of the worsen quality and a continuous decline in the volume of agricultural production.
- The BFBI is characterized with a large number of small firms. This size structure is directly connected with growth potential of the enterprises and the industry as a whole. As a final result, due to the relatively low financial entry barrier in the sector, there are many small business representatives that produce low quality food. As an example, nearly 70% of food producers were threatened for exiting the industry due to a failure of the newer and higher standards of product quality at the end of 2006. According to this, many food producers (especially those producing: milk and milk products; meat and meet products; miscellaneous etc.) were forced to implement quality management standards as ISO 9000 and HACCP.

According to the change of the above factors, we can easily find some general economic framework problems for producing food and beverage as follows:

- Poor co-operation with agricultural suppliers (farmers respectively);
- Deteriorate supplies of seasonal and perishable agricultural products;
- Absence of sufficient long term investments in food and beverage development;
- Poor co-operation with firms in other interrelated sectors of the industry (clusters);
- Increasing requirements of quality standards and environmental protection.

In addition, we find that there has been a deterioration of infrastructure in the food and beverage sector for the last decade. As a result, the prospects of industry growth have been worsened by the infrastructure deterioration. Firstly, it is observed worsen labour force structure. There is an aging of producing labour force among the firms in the industry. This is combined with a presence of seasonality in the recruitment of key workers. Consequently, this reflects to a very slow increase of labour productivity and respectively to a low wages. Secondly, the analysis revealed poor technological structure. As a result of worsen financial potential and not good size structure, many producers have and use a physically and morally depreciated assets and respectively an obsolete production technologies.

Serious pressure on food and beverage producers gives the current market situation. This means a huge increase of competition in the industry and free movement of goods within the EU. In addition, there is an understanding from the European Commission (EC) that European consumers need more product diversity and better food quality. In opposite, there is a state of insufficient public support for development new food products, new technologies or new techniques for producing food and beverages.

Considering all changes in factors above, we find dynamic changes in production and sales of food and beverages. The statistical data indicate that the dynamics of production and turnover of Bulgarian food industry have been very close till mid-2006. After that, the market situation has been changed as a result of Bulgarian EU membership from 2007. Data show that produced food increased by up to 20%, while sales increased four times, respectively by 80%, for 2008.

The statistical data confirm the expected effect of economic crisis. The production indices have been fallen at level of 2005. The Bulgarian food industry dynamic during the crisis is presented as comparative analysis of some financial indicators crosses by firm size .

The analysis of the financial data shows that the crisis affects stronger the smaller Bulgarian food producers than the larger ones. In comparison we can find some essential effects of crisis as follows:

- The average reduction in turnover of the largest producers is below 1% in comparison with a decrease of 9% for the smallest ones;
- The profit of bigger companies has increased than the decreased profit an opposite of decrease profit of small companies;
- The financial indicators of large food producers are 10% higher than the average rate for the food industry;
- There is a positive correlation between the size, turnover, profit and the value of fixed assets.

In conclusion, despite the poor state of BFBI, the food producers have perceived a smaller crisis effects. In addition, there are enough sufficient indicators that bigger firms have more growth benefits of reduced dynamic of production and turnover.

BULGARIAN FOOD AND BEVERAGE INDUSTRY AND TRADE

Analysis of industrial dynamic is based on common perception of industrial dynamic as a whole. Thus, our findings are in accordance with the following definition: "The industrial dynamic is a result of the increasing ability to enforce the industry evolution (for a long-term period" [Forrester, 1961]. Therefore, industrial dynamics does not only describe and analyse the current industrial structure, but these market driven factors that can change economic structures over time.

According to the statement that is given above, the trade dynamic analysis covers three directions:

- Analysis of dynamic change of exports and imports of Bulgarian food and live animals;
- Analysis of dynamic indices of ratio "export/import" for Bulgarian food and beverage industry;
- Analysis of dynamic indices by food groups.

Development of Bulgarian trade and BRICs are analyzed in two layers;

- Bulgarian food trade for 1992–2007;
- Bulgarian food trade for BRICs for 1995–2007.

DYNAMIC OF TRADE INDICES OF FOOD IN BULGARIA

Bulgarian food industry indicates growth for the last decade. Our hypothesis is that the food industry's trade dynamic is a result of free commodity trade within the European Union from the beginning of the century. Therefore, we are looking at change not just by structure of the overseas partner but by structure of traded product groups.

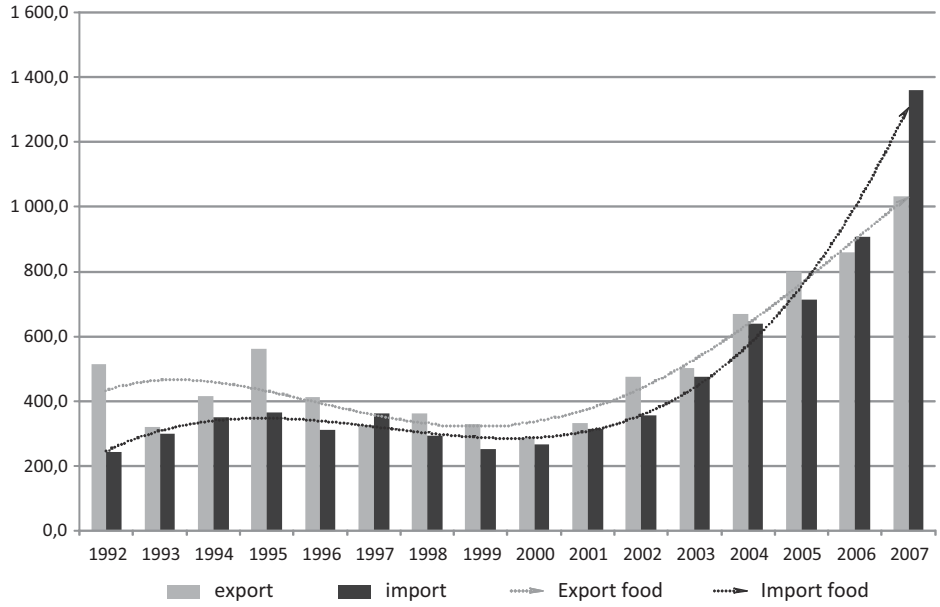

Fig. 1. Dynamic of export and import of Bulgarian Food industry
Rys. 1. Dynamika eksportu i importu przemysłu spożywczego w Bułgarii

Source: NSI and own calculations.
Źródło: Narodowe statystyki i obliczenia własne.

First of all, the analysis covers the dynamic change of Bulgarian food trade for the last 15 years (Figure 1). The food industry has expanded the volume of trade six times since 2000. Trade value of food products had enlarged three times for last five years. Food import has been moving up faster than food export for last years.

As the productivity of Bulgarian industry is not high, Bulgarian plants cover a low quality and price food sector. In addition, the opening the boundaries for free food trade to European countries had given a competitive advantage of Bulgarian food producers. As many authors stated, cost advantage is the single Bulgarian competitive advantage. EU membership, as an economic and political decision, could explain over two times enlargement of food import in Bulgaria for the year of 2007. In addition, the big difference between production and turnover of food and beverages could be fulfilling with more and more import of food products.

Bulgarian food trade looks in better position than trade as a whole for the observed period. The ratio "export/import" gives a picture that food export had overtopped import since 2005. Even then the ratio for food trade is exceeded the ratio for Bulgarian trade. We could evaluate negative the trend of continuous fall of observed indices. So the food export has been turn down for the observed period. Even more, the differentiation between manufacture trade indices and food indices has slow down. Dynamic growth of food import is similar to the growth of Bulgarian import. A problem is that the growth change of food export is slower than the growth rate of Bulgarian export. This means that Bulgarian food industry has lost its competitive advantage very fast.

The next step of the analysis is to find out does the state of food industry dynamic is the same for different food product groups. For our finding we use a classification of eight groups as follows: live animals; meat and meat products; diary and eggs; fish and fish products; cereals; vegetables and fruits; sugar and honey; coffee, tea and spices; miscellaneous food products.

The food trade picture follows some basic conclusions:

a) The trade of food products was at lowest level in 1999–2000. Since then the trade in all food groups have been increased.
b) Trade of cereals and fish products has slow down their growth rate;
c) Export/import ratio forms three groups, respectively: (i) cereals and live animals, where the Bulgarian trade is mostly determined by export; (ii) dairy and eggs, vegetables and fruits, and spices, where export of these products exceeds import for the observed period. A negative tendency of the food trade is kept in this group but with a slower rate; (iii) all other food products, in this group the trade volume is made mostly by import. The dynamic of the change between export and import is constant for the observed period.

In conclusion, we found that main export-oriented food products had lost their advantage very fast. Therefore, the expansion of food products on the Bulgarian national market is done by vast increase of food import.

The data allows confirming the group division above:

- First two groups are characterized with fastest growth rate of the export and slowest growth rate of the import. These are the products with highest trade potential (excluding cereals).
- Third group includes products with slowest export growth and fastest import rate. Bulgarian food industry does not possess competitive advantage producing these food products.

FOOD TRADE (IMPORTS AND EXPORTS) WITH THE BRICS COUNTRIES

The output of food processing sector has stable traditions and presence in the trade balance of the country. With the accession of Bulgaria to the EU many of the obstacles to trade relations have been removed (such as duties, fees, etc.). However, the country must comply with certain allowances, which are set by the EU internal Community trade. Although most of the trade with production from sector “Food and beverage” is realized within the union, we can say that the world market there is huge potential for realization of commercial trade. Much of this potential is due to such countries as Brazil, Russia, India and China.

Bulgaria has negative trade balance with BRIC countries. The country is a net importer of different types of goods from them (Figure 2). Export/import of food and beverages from Brazil, Russia, India and China is also in favour of import (Figure 3).

The production and trade of products from food processing sector can be conditionally differentiate in the following product groups: Food and live animals, Meat, Dairy and eggs, Fish, Cereals, Vegetables and fruits, Sugar and honey, coffee, tea, cocoa and spices, miscellaneous.

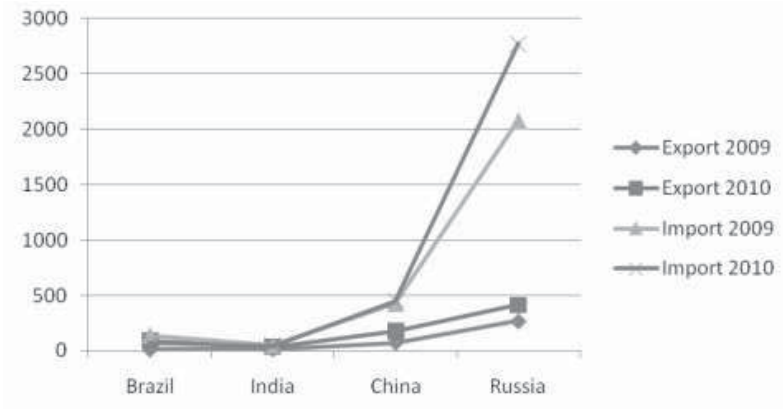

Fig. 2. Total Export/Import BRIC countries
Rys. 2. Eksport/Import krajów BRIC

Source: NSI and own calculations.
Źródło: NSI, 2010: Narodowe statystyki i obliczenia własne.

Note: The figures (index) shows how many times export exceeds import in the reference period by countries
Nota: Liczby (indeks) wskazują, ile razy eksport przewyższa import w okresie referencyjnym w poszczególnych krajach

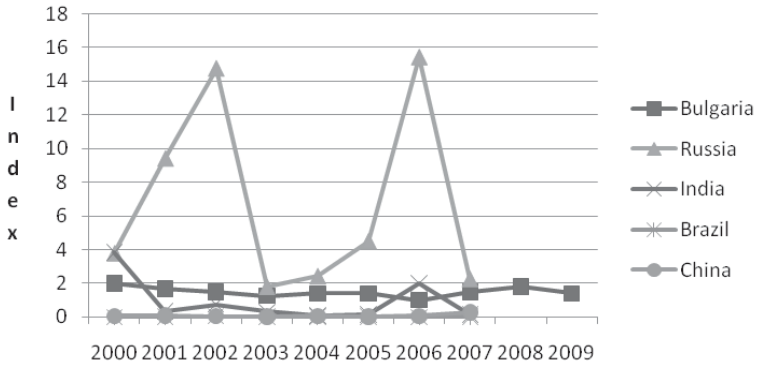

Fig. 3. Food and Beverages Export/Import Ratio by BRIC countries
Rys. 3. Eksport/Import żywności i napojów według krajów BRIC

Source: EUROSTAT.
Źródło: EUROSTAT.

Note: The figures (index) shows how many times export exceeds import in the reference period by countries
Nota: Liczby (indeks) wskazują, ile razy eksport przewyższa import w okresie referencyjnym w poszczególnych krajach

Imports and exports (bilateral trade) is developing at different intensities in different countries of the BRICs in each of these product groups. The largest share of bilateral trade with the countries of the BRICs is occupied by trade in food and live animals. Almost 100% of it is due to food, and trade in live animals is occasionally. In the mid 90s, Bulgaria had relatively high levels of trade in food and food products.

This trade was mainly with Russia. Russian market has been a traditional market at the time of socialism. The trade with food and food products with other countries: China, India and Brazil, is very poor. From 1997 to 2002 trade with Russia decreased several times. The lowest rates were reported in 2001. Then the trade turnover is already comparable with trade with other countries from BRICs. Since 2002, there has been a slight resurgence and increasing the rate of growth. But the levels are significantly lower than those in the 90's. Interesting here, is the fact that trade with Russia is on diametrically opposite position with trade with India, China and Brazil. There was a inverse limit point in 2001. Prior to that time, basic trade with food is realized with Russia and with other countries was symbolic. After 2001 the share of India, China and Brazil is growing, and with Russia shrinks to the unenviable position.

Bulgaria is a traditional producer of cereal. Most of the production is intended to meet the internal needs of the country. Another part is realized in the European market, which is closer and easily accessible. In this type of production, from food processing sector, there is the trend of a decline in trade with Russia. Such turnover is completely lacking in Brazil, and trade relations with China and India are incidental. They are in years when those countries show grain crisis.

The trend in trade in fruit and vegetables largely repeated the trend in trade with food. Indices presented in graphic form echoes that of food (Figure 4). There is an inversion point (i.e. the largest drop in commodity exchange) in the period 1999–2000. Until this year, trade in fruits and vegetables with Brazil, China and India is almost lacking. After that, after this inversion point, there is a slow, but steady growth rate.

In recent years, trade with these countries is almost equal and there is no preference country market. The trade balance of fruits and vegetables with the BRICs is negative. The main reason for this state is a reduced Russian market potential.

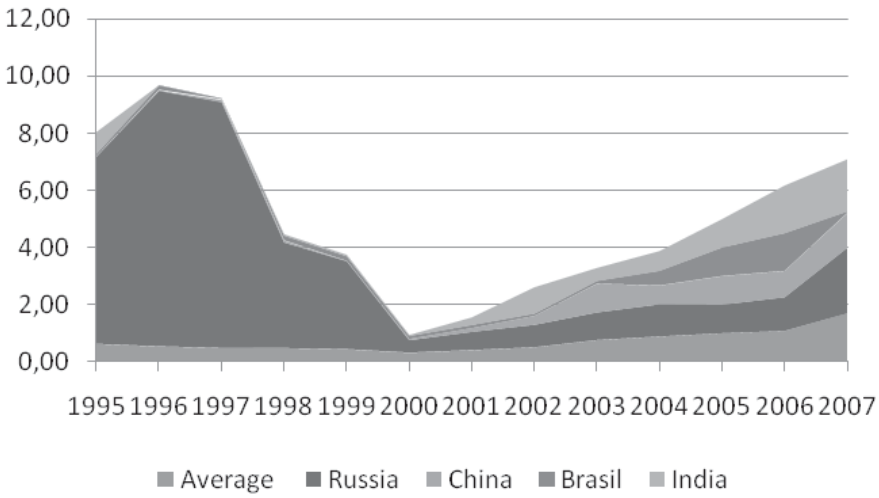

Fig. 4. Trade Index of Vegetables and Fruits with the countries of BRICs, based on 2005
Rys. 4. Indeks handlu warzyw i owoców z krajami BRICS, rok bazowy 2005

Source: NSI and own calculations.
Źródło: Narodowe statystyki i obliczenia własne.

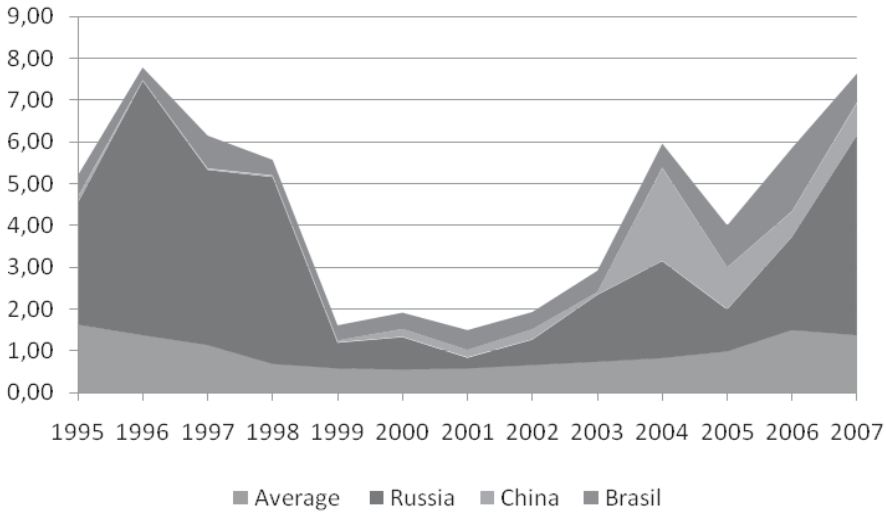

Fig. 5. Trade Index of Sugar and Honey with the countries of BRICs, based on 2005
Rys. 5. Indeks handlu cukrem i miodem z krajami BRICS, rok bazowy 2005

Source: NSI and own calculations.
Źródło: Narodowe statystyki i obliczenia własne.

In trade with sugar and honey (Figure 5), the flow is moving at variable rates. After a considerable decrease in the period 1999–2002, there is observed growth rates. The volume of trade in 2007 reached the level of the mid 90s. As with other product groups, major trading partner is Russia. Turnover with Brazil and China is almost low. Such turnover is completely lacking in India. In this product group, the turnover is mainly made on sugar imports from Brazil and copper exports from Bulgaria to countries in the BRICs.

Unlike the previous product groups where the country is losing ground in terms of loss of markets, but has export performance, the next group of products has mainly import nature. The country is a net importer of coffee, cocoa and some spices. The lower point of trade is in the period 1999–2001 (a few years after Bulgarian economy recession in 1998). In recent years, trade with the countries of BRICs is relatively evenly distributed. This trade is in the stage of progress. Negative about the economy is that, this generates a negative net balance of trade balance of this product group.

Trade turnover with the other products from the food industry does not differ from the general trend of the considered here product groups. The economy recession from mid 90's conducted an overall loose of food markets. The trade processes and trade structures with those countries are changing and decreasing. Opening the country to world markets increases the flow to countries like India, China and Brazil, not only with Russia. In recent years, trade with India and China now exceeds trade with traditional partners of Bulgaria such as Russia.

Interesting fact is which of the product groups are with greatest contribution in the implementation of Bulgaria trade with the countries of BRICs.

Until 20 years ago, the primary user of the output of food industry enterprises sector of Bulgaria was the huge Russian market. With its simplicity and high absorption, the

Russian market provided to Bulgarian Food sector safe place for the realization of food productions. The main part of the trade flow is made of Bulgaria's exports to Russia. These exports are mainly of canned food, alcohol and cereal crops. With the exiting of the Russian economy from the crisis during 90s, it opens to the products of Western markets. By increasing the pretentiousness of Russian consumers, Bulgarian food products lost significant positions. Therefore, in 1999–2000 the trade flow of these two countries, otherwise traditional trading partners, declined to unenviable position.

At the same time, with the loss of trade with Russia to Bulgaria there were opened up new opportunities. Such opportunities are trade markets in countries as China, a new and much larger market of Russian. These opportunities, however, are not fully used. Basic trade with China is only carried by 1–2 product groups such as Cereals and dairy.

One could say that the Chinese market has not yet been developed. It will be perspective to increase bilateral trade in the future.

The trade with Brazil has been increasing in recent years. But this state is not equal represented for all food product groups. However, the export volume of food and honey has been developing well. So does the import volume of coffee, cocoa and spices (Figure 6).

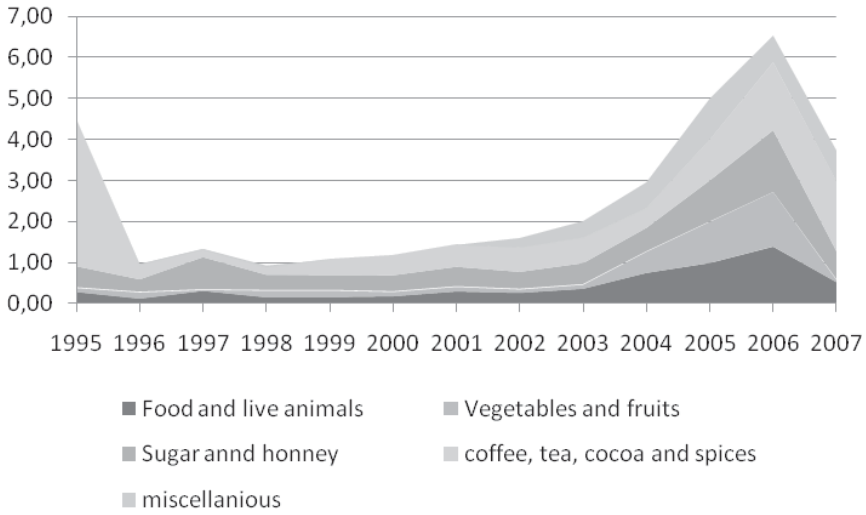

Fig. 6. Rate of change in trade with Brazil by product groups in Food sector (2005 = 1.00)
Rys. 6. Stopa zmiany wymiany handlowej z Brazylią według grup produktów sektora żywnościowego (rok bazowy 2005)

Source: NSI and own calculations.
Źródło: Narodowe statystyki i obliczenia własne.

The situation is identical in trade with India (Figure 7). There are observed some hikes in trade relations, mainly dominated by trade in cereals. Another strong product group is presented by imports of spices and fruit. The pace of change in trade relations with both countries is increasing. But the foreign trade balance is negative for Bulgaria. This is the result of low competitiveness of Bulgarian production in the food industry, and of low quality and lack of industry standards in Bulgarian economy.

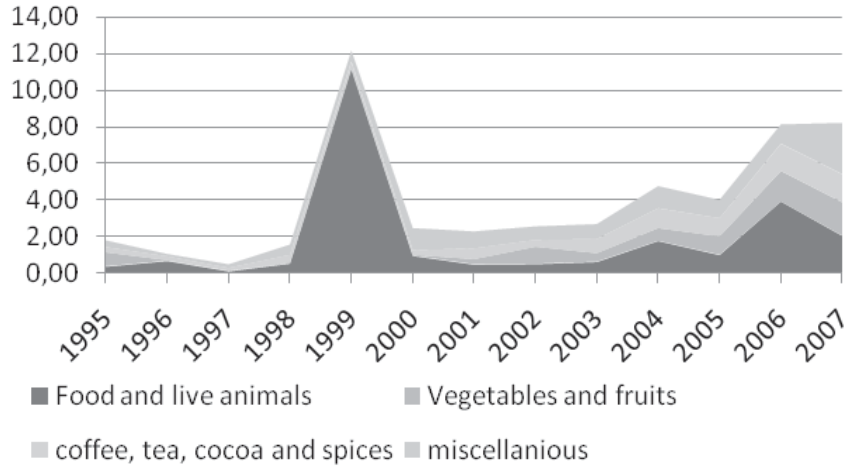

Fig. 7. Rate of change in trade with India by product groups in Food sector (2005 = 1.00)
Rys. 7. Stopa zmiany wymiany handlowej z Indiami według produktów sektora żywnościowego (rok bazowy 2005)

Source: NSI and own calculations.
Źródło: Narodowe statystyki i obliczenia własne.

CONCLUSIONS

Based on conclusions that comprised analysis of trade for different (i) groups food products and (ii) BRICs countries, it can be summarized that Bulgaria has relatively stable trade relationship with these countries. Commercial positions are lost with traditional trading partners like Russia. There are opportunities for both countries to increase the number of traded products and goods. In the years of business globalization, options to entering the promising markets like China, India and Brazil have not been fully used. These markets have a large volume of consumers and provide an opportunity for the realization of Bulgarian production of food industry. They are an alternative to the saturated European market. Bulgarians' trade balance with these countries is negative and it is observed long term trade deficit. To overcome these negative trends for the sector it is necessary to increase the competitiveness of Bulgarian production, and to rely on quality and standardized production, and to concentrate efforts for development of new market niches in the BRIC countries.

REFERENCES

External and intra- EU trade statistical yearbook (1958–2009), 2010. EUROSTAT.
Forrester J., 1961. Industrial Dynamics, Portland, Oregon: Productivity Press.
Industry and trade, 2010. EUROSTAT, http://epp.eurostat.ec.europa.eu/
Kopeva, D., 1997. Competitiveness of the Bulgarian Food Industry, IME, Sofia.
Statistical Yearbook, 2010. NSI, Sofia.
Trade of Bulgaria with third countries for the period 2009–2010, 2011. NSI, Sofia.

PRZEMYSŁ SPOŻYWCZY I HANDEL Z KRAJAMI BRIC W BUŁGARII

Streszczenie. Produkcja żywności i napojów jest atrakcyjnym i wiodącym sektorem bułgarskiego przemysłu. Bułgarski przemysł żywnościowy jest tradycyjnie zorientowany pro-eksportowo. Największymi importerami bułgarskiej żywności i napojów są Brazylia, Rosja, Chiny i Indie. Systematyczny wzrost relacji handlowych z krajami BRIC ma znaczący wpływ na dynamikę tego sektora. Celem artykułu jest analiza dynamiki przemysłu spożywczego w Bułgarii i rola stosunków handlowych z państwami BRIC. Bilans handlu zagranicznego Bułgarii z krajami BRIC jest ujemny. W celu przezwyciężenia negatywnego trendu w tym sektorze jest niezbędna poprawa konkurencyjności produkcji poprzez standaryzację i jakość oraz rozwój eksportu na rynki niszowe.

Słowa kluczowe: przemysł spożywczy, handel, Bułgaria, kraje BRIC

Accepted for print – Zaakceptowano do druku 23.09.2011