
SILVIA TRIFONOVA
Department of Finance
University of National and World Economy
1700 Sofia, Studentski Grad, Blvd. “8 December”
BULGARIA
trifonovasilvia@yahoo.com http://www.silvia-trifonova.microstat.analytics.com

Abstract: - The paper aims to analyze the key trends in the business environment in Bulgaria due to the global financial crisis. As a major indicator for the business environment is used the growth in gross value added (GVA) produced by economic sectors. The global financial crisis impacted all economic sectors in the country, hitting consumer and business confidence and eroding export opportunities and capital inflows. According to its main objective, the study is focused first on the drop of added value from Bulgaria during the last years. Second, an analysis is made on the structural imbalances of the GVA in Bulgaria by economic sectors. The changed position of Bulgaria at the world markets in the processes of globalization, after the collapse of the Council for Mutual Economic Assistance (CMEA) and since the country’s accession into the European Union (EU) have been described. Third, an econometric study of Bulgaria’s GVA produced by economic sectors before and after the crisis is made during the respective two periods. Chow test is applied in order to test the presence of a structural break. This reveals the impact of the global financial crisis on Bulgaria’s GVA produced by economic sectors.

Key-Words: - Gross value added; gross domestic product; structural imbalance; global financial crisis; Bulgaria; Chow test.

1 Introduction
The task of the study is to analyze the impact of the global financial crisis on Bulgaria’s business environment. All economic sectors in the country were hit hardly from the crisis. As a key indicator for the business environment developments in the paper is used the GVA growth. The study first is focused on the drop of value added from Bulgaria during the last years that had a strong negative impact on the whole economy. Second, an analysis of the production structure and its imbalances is made. Different periods of Bulgarian economy’s development are described – such as the transition to a market economy after 1989, the collapse of Council for Mutual Economic Assistance (CMEA) and the country’s accession into the EU. Third, an econometric study on Bulgaria’s GVA by economic sectors before and after the global financial crisis is made. This empirical study is based on the following two sub-periods: 1) Pre-crisis period 2002-2008; 2) Post-crisis period 2009-2013. Data bases of the National Statistical Institute (NSI) are used – seasonally adjusted data, 2010 base-year prices, 3-monthly basis. Chow test is applied in order to test the presence of a structural break. In this case the structural break takes the form of the impact of the global financial crisis on the business environment. The paper concludes with summarizing the results from the study.

2 Drop of added value from Bulgarian economy
For each small open economy with low investment activity, such as Bulgaria, the drop of added value is the fully ordered process, as the main form of realization of its potential is foreign trade. Meanwhile, the lack of a basis for the development of modern production, stimulate the export of production in the early stages of the chain. Raw materials and semi-manufactures are exported mainly from Bulgaria, in which the proportion of labor costs is much smaller than on the last stage of the chain, especially in the implementation of high-tech products. This is immediately reflected in the foreign trade balance of Bulgaria, as the volumes of exported and imported goods are highly unequal, which in turn leads to the accumulation of negative trade balance. From this imbalance occurs, and another serious problem associated with household...
income. This leads to a standstill in the purchasing power of the population and to the satisfaction of essential needs at the expense of increase in indebtedness. The cost of a large number of employees in industrial sectors cannot be covered by the main source of revenue and they are forced to withdraw credit from local banks. In 2009, more than half of Bulgarian households experiencing a systemic shortage of means for existence, as the cost of providing the minimum subsistence figure and those – customer service credits are equal to their earnings, or even larger [1]. Bulgarian households are cautious regarding their expenditure due to the existing uncertainty on the labor market related to the continuing drop in employment and increase in unemployment. In the conditions of the world crisis about 2/3 of Bulgarian households are finding it difficult to service their loans and it affects the financial system – many banks realize losses amid rising costs for supplies, and the quality of their portfolio is deteriorating.

Catalysts for value added exports are the processes of globalization, which lead to significant negatives in the economies exporting added value due to two main reasons. On the one hand, the lack of barriers to the free movement of goods and services leads to fast leveling of prices to markets in countries with substantially different levels of incomes of the population, i.e. the convergence of prices leads to a real impoverishment of households in the countries exporting added value. A more serious problem, however, stems from the globalization of labor markets, as the lack of targeted policy (as well as the lack of conditions for its implementation) with respect to highly qualified people leads to his migration to zero economic effect of investment in education. In other words, the problem with the export of value added stems from the unfavorable industrial structure of the Bulgarian economy and undermine its foundations, depriving her of the potential for development in the long term.

3 Business environment developments in Bulgaria: structural imbalances

The structure of Bulgarian production is inefficient in terms of volume and added value growth. The share of added value produced in industry, agriculture and construction is greater than the EU average. In Bulgaria the intermediate consumption for per unit of output in agriculture is greater in comparison with the output in the services sector and in the industrial sector. This circumstance is an important limitation in terms of volume and growth of value added, as per unit value added costs for raw materials and energy are larger.

Often the analysis of production structure makes a comparison with the years before 1989, when the country had a large capacity for production of goods for consumption, production equipment, etc., which had a serious presence on the foreign markets. A number of Bulgarian industry groupings in the engineering, metal processing, electronic, chemical and food industry, had strong positions in the markets of CMEA, and some of them also in the Western markets. Until today remain not completely clarified the reasons after 1989 most of these industries were closed. Indeed, in this form the system was unviable, the production – uncompetitive, production and marketing-unbalanced. Created are redundant capacity and main production funds, leading to an imbalance between revenues and outgoing cash flows in convertible currency, and therefore an increase of external debt in such currency. The system itself has numerous vices, among which: ignoring the market mechanism and restriction on the forms of ownership, control planning mechanism of management of the economy, even in the high energy consumption, a strong dependence on imports of raw materials, etc.

However, it should be recognized that at this time, the structure of Bulgarian production and export was generally in favor of sectors with high added value. The country had good market positions of the electronic industry, very good for electrical machinery and food industry and good for part of the production of engineering and manufacturing industry, and the chemical and rubber industry. The net export of such proceedings for the period 1986-1989 reached share almost 84% of the total exports of Bulgaria. The refusal of cooperation with leading Western companies proved to be decisive for the survival of these branches and after 1989 they find themselves unprepared for the conditions of the free market. Rapid reorientation of CMEA countries to Western trade partners led to a sharp drop in Bulgaria’s exports.

With the collapse of CMEA, in 1991, the exports of Bulgarian industry dropped to 54.5% compared to the volumes of 1986. Bulgaria did not succeed to do what is necessary to seize positions in new markets and lost the already established positions in CIS countries (in which up to 1988 it realized nearly 2/3 of its exports). After having signed the European Union Association Agreement in 1993, the Bulgarian economy quickly lost its traditional markets and in 2002, exports to the CIS amounted to only 23.3% of the volume in 1992, and in 2005 –
3.7% of the total export [2]. Bulgarian positions were occupied by Western companies – European, US and others.

The processes of delocalization had a positive influence on the Bulgaria’s production and export structure. In these processes Bulgaria participates as a host country of manufacture of products of heavy intensive industries. In the period 1995-2003 the share of consumer goods exports increased from 26% to 37%. This trend is due mostly to the increased export of clothes and shoes, whose share raised from 6% at the beginning of the period, to 22% at the end. Similar developments but in opposite direction were observed in the share of raw materials, which declined respectively by 53% to 41%. It should be taken into account that in spite of the favorable impact on production structure, the effect of delocalization on realization of the value added is relatively small, because the main part of its accumulation (the stage of marketing) is done only after the exportation of finished products out of the country.

The change of the role played by Bulgaria in the processes of globalization, has changed its market position. As in December 2002, the European Commission supported the desire of Bulgaria to join the EU, the attractiveness of the country as successor to heavy intensive production decreased. The expectations for the convergence of prices and wages to the average in the EU led to the withdrawal of foreign companies from these industries and this quickly is reflected in the structure of Bulgaria’s exports. The share of consumer goods in the coming years until the beginning of the global financial and economic crisis, declined from 37% to 22%, while the shares of exports of raw materials and energy resources are increased respectively by 4 to 6 percentage points. In 2007, the share of raw materials in the total exports reached 45%, and that of energy resources – 15%.

Besides the withdrawal of investments from the relocated businesses, local production has been adversely affected by the introduction of the zero customs duties on imports of industrial products from the EU Member States in 2002 under the European Union Association Agreement. In the same year the import duties on industrial products from the Member States of the European Free Trade Association (EFTA) were fallen and this affected the structure of local production and the export of goods with a high share of value added. This is a completely legitimate – the liberalization of trade as a rule benefit countries with a strong and competitive economies. The effect in the economically weaker countries, expressed above all in the suppression and liquidation of local industries and rapidly increasing trade deficit. This is precisely what occurred in Bulgaria – in the period 2002-2006, the deficit in foreign trade with the EU-15 increased 2.5 times (up to USD 2 billion) [3]. Similarly, such developments are recorded in Bulgaria’s trade deficit with the countries of the Central European Free Trade Agreement (CEFTA), which grew 12 times after the entry into force of this agreement (from USD 70.6 million in 1998 to USD 943.1 million in 2006).

The observed processes affect immediately on the structure of employees who are being transferred from the branches with variable factor intensity and these – with economies of scale (characterized as a whole with a high proportion of the added value of production) to the heavy intensive industries requiring large resources (Fig. 1).

The analysis shows that for the period up to 1995 the structure of employed persons in Bulgaria resembles this of the advanced countries such as the Netherlands, Sweden, Germany, etc. As a result of the observed economic processes in 2004 the country had a similar structure of employed persons like the one in Romania, Greece and Portugal. It should be noted that the effects of these processes will occur in the long term, since for the most part, they represent a loss of growth potential. The contracted opportunities for realization of skilled workers from economic sectors with high added value lead to their loss. They leave the country or the industry in which they work or simply they remain without work and this makes these economic sectors unattractive to investors. Business units in these industries are decapitalized, their assets are being liquidated and their market positions are lost.

The consequences are irreversible. Bulgaria has neither the time nor the resources to restore its lost potential.

As a small open economy, Bulgaria is highly vulnerable to the regional and global factors due to: its strong dependence on export earnings and foreign investment; country’s weak competitiveness on international markets; the absence of protection mechanisms; the high degree of energy intensity of production. The last feature is typical for the region of Central and Eastern Europe (CEE) and this lead to a deepening of the problems, as in the time of financial and economic crisis, it is impossible to allocate funds for the modernization of production. This is accompanied with a deterioration of the competitiveness of the CEE economies.
The global financial turmoil had a severe effect on Bulgarian economy. The impact of the crisis most clearly has been observed since the second half of 2008. The negative trends in economic activity in Bulgaria resulted from the dramatically worsened external environment. Declining export sales and revenues and increasing unemployment hit industries serving the domestic market. Fallen domestic sales contributed to an intensification of real GDP decline. In 2009 real GDP dropped by 5.5%, and gross value added in the economy declined by 3.8%. Domestic demand was constrained by the static incomes, growing unemployment, weaker foreign direct investment, and low lending rates [3]. Value added in manufacturing fell by 8.1% in 2009, contributing by 1.2 percentage points to the overall decline. Worsened export conditions and, even more, reduced domestic demand impacted the sector. Imports were significantly cut due to restrained domestic demand for durables and investment goods. The key effects of the global financial crisis in terms of Bulgaria’s value added exports were the following: relatively weak changes in the structure of foreign trade; the amendments on the segments were on the order of 2-3 percentage points relative to the levels of 2007; they were mainly in the form of contraction of the proportion of the raw materials and energy resources (which is logical in a period of global recession), on account of the increase of the share of basic necessities (food and medicines).

More than half of the Bulgarian export is composed of goods with low added value (raw materials and semi-finished products). The data indicate that this structure has greater inertia in terms of adverse economic developments and is relatively more resilient to the impact of the global crisis. The 2008 EU trade deficit grew by 21%, while the deficit of the 27 Member States of the EU – 25%. In the long term, however, such a low-efficient production structure prevents the increase of labor productivity. Indeed, bank lending in the country is scaled back, but even if it was reserved to the levels of before the crisis, it would hardly help the restructuring of production, as demonstrated its dynamism during the brief recovery since 2010. Negative growth in industry was related to declines in construction (-7.2%) which utilizes the bulk of intermediate consumption products, and retail (-6.1%). Reduced foreign trade was a key factor behind falls in transport and communications where value added dropped by 7% in 2009. GVA in financial sector was dropped to 52.7% in 2009 comparing with 54.3% in 2008. Owing to the deterioration in market conditions companies in most industries cut material and labor spending to protect the narrowing gross operating surplus in gross output.

The low added value of local production determines the dynamics of household income which indicates the degree of economic convergence to the EU. In 2008, 41.9% of the population in Bulgaria was
living in material deprivation, while for the EU this proportion was considerably smaller - 8.1%.

Measured as GDP in purchasing power standards per employee, labor productivity in 2008 was 40% of the EU average and has the lowest absolute value by all Member States. Bulgaria is also at the worst position according the share of the remuneration in the overall cost structure [4]. This complex of factors plays a role of a natural restrictor for the development of the business sectors, since it implies a low purchasing power of the population, and this reduces the solvent demand for services and the opportunities for business expansion.

4 Econometric analysis on Bulgaria’s GVA by economic sectors before and after the global financial crisis

This empirical analysis aims to reveal the impact of the global financial turmoil on the GVA by economic sectors in Bulgaria. The country’s overall GDP is measured by the Production approach. The major economic sectors analyzed in the paper are the following:

1. Agriculture, forestry and fishing;
2. Mining and quarrying; manufacturing; electricity, gas, steam and air conditioning supply; water supply; sewerage, waste management and remediation activities;
3. Construction;
4. Wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities;
5. Information and communication;
6. Financial and insurance activities.

Two are reviewed periods in this analysis:

- First period – before the global financial crisis (2002-2008);

On this basis, two econometric models are constructed for the two sub-periods. Chow test is applied in order to test the presence of a structural break in the country’s GVA dynamics. Chow test does confirm the suggestion made in the graphical interpretation of Bulgaria’s GVA that this indicator was developed in one way up to end-2008, but since 2009 – in another way. Chow test represents that the fourth quarter of 2008 can be seen as a breaking point when the upward trend of the country’s GVA is broken.

Logically, the next step is to analyze both trends of development and to determine what the difference is exactly before 2008 and after that. This analysis is focused on the GVA generated by the seventh economic sectors. Tenth figures are presented in order to demonstrate the dynamics of GVA by each Bulgarian economic sector.

With this view, a general measure of development is chosen which the average exponential growth of a certain variable is. The average exponential growth could be determined by using the following econometric model:

$$Y_t = \beta_0 + \beta_1 t + \epsilon_t$$  \hspace{1cm} (1)

where: $Y_t$ are the investigated GVA, $t$ is dummy variable expressing the time, and $\beta_1$ is the requested average growth.
The results from the constructed econometric models for each economic sector could be seen at Table 1, representing the average absolute growth of Bulgaria’s GVA during respective periods.

Table 1: Average absolute increase in GVA by economic sectors on a quarterly basis

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<tbody>
<tr>
<td>Agriculture, forestry and fishing</td>
<td>-7.79</td>
<td>-6.59</td>
<td>-7.82</td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>24.22</td>
<td>-16.50</td>
<td>8.75</td>
<td></td>
</tr>
<tr>
<td>Mining and quarrying; manufacturing; electricity, gas, steam and air conditioning supply; water supply; sewerage, waste management and remediation activities</td>
<td>44.82</td>
<td>22.36</td>
<td>23.84</td>
<td></td>
</tr>
<tr>
<td>Wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities</td>
<td>44.13</td>
<td>28.40</td>
<td>26.32</td>
<td></td>
</tr>
<tr>
<td>Information and communication</td>
<td>14.83</td>
<td>1.19</td>
<td>14.69</td>
<td></td>
</tr>
<tr>
<td>Financial and insurance activities</td>
<td>33.69</td>
<td>-1.47</td>
<td>24.37</td>
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According to the GVA produced by economic sectors, the following trends are distinguished:

1. **Trend of sustainable average decrease in GVA before and after the crisis. This trend is observed only in sector „Agriculture, forestry and fishing” in Bulgaria.**

   Agriculture has traditionally been one of the most important sectors of the Bulgarian economy. The stable positive development of the domestic economy during the recent years reduced the relative weight of agriculture in relation to the generated GVA and employment levels, but the agricultural sector will continue to play a significant role in the Bulgarian economy and largely defines the general state of the country. Bulgarian agriculture has undergone serious changes since 1990s: radical land reform, total privatization and violent destruction of the old productive structures, the complete withdrawal of the state sector and almost no support for farmers.

   The measures taken in order to support the manufacturers over the years were modest, contradictory and inconsistent. Therefore, up to the entry of Bulgaria into the EU, the agricultural production in the country was one of the least supported in the world agricultural sectors, which gradually rise to serious structural problems industry. The overall assessment of the level of support until 2002 is negative or close to zero and after 2002 there was some increase in support (from 1% to 2%). Therefore, state aid to agriculture is a prerequisite for the prosperity of the sector.

   Since 2007 Bulgaria and its farmers are in a different situation. Up to 2007 the main factors for the development of agriculture were inside the country. After the EU accession the external factors have an important impact on the development of this sector. Bulgaria has the right to supplement the EU subsidies per unit area, but if the government budget could not provide this financial aid the country will become a negative example in this respect. The outcome of the limited support for the agricultural sector and the controversial policy against its development during the transition period is more than a negative. This is evidenced by:

   - **Seriously reduced importance of agriculture to the domestic economy.** Stabilization of the Bulgarian economy as a whole predetermines a significant increase of the produced in Bulgaria total gross value added, while in the agriculture area GVA is kept almost at the same level.

   - **During the pre-crisis period 2002-2008 the GVA in this sector declined every year on average by BGN 7,79 million, followed by a decrease by BGN 6,59 million after the crisis 2009-2012. Therefore, no serious impact of the crisis is observed on this sector. The GVA decline was BGN 7,82 million on a quarterly basis for the whole period 2002-2013. This means that on an annual basis the GVA decline in sector „Agriculture, forestry and fishing” was around BGN 31 million for the whole reviewed period. This sustainable downward trend reveals the reducing contribution of agriculture to the economic development in Bulgaria. This sector is not only a motor of economic development, but back slows down the GDP growth.

   - **At the same time, the number of employed in the sector remained almost unchanged or decreased by a much slower pace. Therefore, there is no increase of the production efficiency in the agriculture.**
• The production volume in this sector is not only stalled, but is highly variable in recent years. Tracking the dynamics of the physical volume of GVA generated by Bulgarian agriculture shows highly extensive production, which in much greater degree than in developed countries depends on the natural and climatic conditions.

• The lack of serious progress in agriculture is resulted from the existing serious structural problems, and the fact that during the last years the attention was focused on the preparation of the sector for the EU criteria. Considerable efforts have been focused only on legislation harmonization, institution-building to implement the EU Common Agricultural Policy, etc., not in measures to increase the production efficiency. Low share of agriculture in the economy, typical for developed countries is a positive phenomenon only when there is an increase in the volume and quality of the produced agricultural production. Unfortunately, this is not valid for Bulgaria where the importance of agriculture is declining due to the negative trends in its development.

• There has been some increase in investment in agriculture, which is a prerequisite for the expected positive trends, but the share of investment in the sector continues to decline. Notwithstanding the increased investment activity in the agriculture, the technological level of production remains low. This affects the labour productivity, which is currently about 3 times lower than that of other economic sectors, and this is the reason for low farm incomes – about 40% below the national average [5].

Fig. 4: GVA produced by sector “Agriculture, forestry and fishing”

2. Trend of sustainable average increase of GVA before and after the crisis, but the growth rate is much lower after the crisis. This trend is observed in the following three economic sectors in Bulgaria:

1) Sector „Mining and quarrying; manufacturing; electricity, gas, steam and air conditioning supply; water supply; sewerage, waste management and remediation activities“.

In 1989, Bulgaria was a manufacturing economy that produced low quality products that were distributed to the CMEA countries. Bulgaria had a 20% global market share in the production of electric forklifts and hold 18% of the global market for radio equipment. Quarter of a century later, in a free market economy and being part of the most prosperous economic union – the EU – Bulgaria has no one a world industrial product, and the EU survey reports demonstrate Bulgarian industry as an example of low value added and archaic depending on the available natural resources.

Industry is not only a means of creating GDP; it is responsible for the maintenance of technical skills and scientific potential development in a society. Therefore the EU pays great attention to its industrial structure. One of the EU targets until 2020 is to increase the share of its industry to 20% of the total GDP. This rate currently in Bulgaria is formed by the joint efforts of industry, energy and water supply.

Up to end-2008 the GVA produced by sector „Mining and quarrying; manufacturing; electricity, gas, steam and air conditioning supply; water supply; sewerage, waste management and remediation activities“ is increased by 44,82 BGN mil quarterly. This means that on an annual basis its growth is around BGN 180 million. Since 2009 the average growth in GVA by this sector in Bulgaria is only BGN 22,36 million quarterly. There is a decline by 2 times of the average increase in this indicator. In fact, the yearly growth of GVA by this sector during the period 2009-2013 is very low – around BGN 90 million.

Manufacturing in Bulgaria accounted for 22.3 % of the GDP in 2013 [6]. The production of medium-high technology sector has been growing relatively robustly (3.8% on average) between 2005 and 2011 [7]. However, the growth in high-tech has been weaker (1.9 %). The share of chemicals and pharmaceuticals, classified as a high value-added sector, shrank from 22.0 % (2008) to less than 15.7 % (2011), whereas metals, which account for a large proportion of primary raw material exports increased from 11.5% (2008) to 17.6% (2011) [6].
According to the European Commission, Bulgarian industry is still characterised by low productivity and a low level of innovation [8]. Although Bulgarian companies enjoy the most favorable tax regime in Europe, they still underinvest in research and innovation. The tax incentive seems not to have increased investment in these activities. In fact, doing business has become slightly easier, but Bulgaria’s improved ranking on this score (to 58th position in 2014) mostly due to a decline in other countries’ performance [9].

Bulgaria has very low cost of doing business: corporate income tax rate is 10%, flat rate; industries in high-unemployment areas are granted 0% tax rate; there is a 2-year VAT exemption for imports of equipment for investment projects over EUR 5 million, creating at least 50 jobs; depreciation time for computers and new manufacturing equipment is 2 years; withholding tax on dividends and liquidation quotas is 5% (0% for EU tax residents); personal income tax is 10%, flat rate. Bulgaria has one of the most competitive costs of labor in CEE.

The economy is the most energy-intensive in the EU, with low energy and resource efficiency. Bulgaria covers more than 70% of its gross energy demand by imports. The dependency on import of natural gas and crude oil is practically full and has a traditional single origin – the Russian Federation. The Russian natural gas is supplied by one route – through the Ukraine. The high cost of energy poses a challenge to some parts of industry and targeted adaptation strategies could be useful. As a whole, the region of CEE is characterized by high dependency on oil and gas import, fragmented markets and absence of interconnections between neighbouring countries. Besides, since the direction of flows is primarily East to West, this region is particularly vulnerable as regards security of gas supply. Ensuring competition in energy markets, increasing renewable energy production and increasing energy efficiency would help Bulgaria to face these challenges [10]. Bulgarian government adopted a National Energy Strategy till 2020 that is aimed to overcoming of the negative climate changes, reduction of the economy’s energy intensiveness and energy efficiency improvement, limiting the EU’ external dependency on imported energy sources and promotion of the economic growth and employment by providing reliable and affordable energy for the consumers [11].

2) Sector “Wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities”.

During the pre-crisis period the GVA produced by this sector increased by BGN 44,13 million quarterly. Its growth on an annual basis was around BGN 176 million. During the second period the average growth in GVA by this sector was only BGN 28,40 million quarterly. On an annual basis this growth was around BGN 113 million. In fact, a decline by around 2 times of this indicator is observed. Worsened export conditions and, even more, reduced domestic demand impacted hardly this sector.

Due to weaker final and intermediate domestic demand, in particular for investment goods, Bulgaria’s imports dropped during the crisis. The decline in exports was smaller, leading to a positive balance of trade contribution to real GDP. Reduced foreign trade was a key factor behind falls in transport and communications where value added dropped.

During the period of economic recovery, the Bulgaria's retail trade turnover rose. Retail sale via mail and Internet had an increase by around 13% in 2014 according to the NSI [2]. Retail sale of automotive fuel, lubricants and pharmaceutical products went up. Moreover, retail turnover in the textile and footwear industry was increased.

According to the European Commission, based on its export performance in 2014 Bulgaria was put in a same group with such medium and small economies as the Baltic countries, Romania and Slovakia [8]. Their exports grew rapidly during the period 2012-2014.
However, slow procedures and the high costs of exporting still deter full use of Bulgaria’s geographical position as a potential trade hub between the EU and Eastern Partnership countries, including the Balkans, Turkey, Russia and Caucasus. In Bulgaria there is a need to improve rail, road and water transport further, so as to reduce transport costs and increase efficiency. The national railways is likely to be reorganised and partially sold off, because it is unable to repay its loans. Improved transport connectivity and access to markets are one of the government’s priorities. Improvements in regional transport infrastructure would also help to develop tourism [12].

Fig. 6: GVA produced in sector “Wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities”

Source: NSI.

3) Sector „Information and communication”.

The information and communication technologies (ICT) sector is one of the fastest growing sectors of the economy in Bulgaria. It generated at more than EUR 3 billion or nearly 9.0% of the country’s GDP in 2010 where the IT segment made up 1/3 of the total, or approximately EUR 1 billion, 33% of which came from the software companies, as estimated by market representatives [13]. According to the Ministry of Transport, Information Technology and Communications, in 2010 local IT companies and research and development organizations attracted a total of EUR 4 million under EU programmes.

Unlike most of the sectors of the Bulgarian economy, the ITC sector showed a stable performance even during the global financial crisis. Up to the end of 2008 the GVA produced by this sector raised by BGN 14,83 million quarterly. On an annual basis its growth was around BGN 59 million. During the post-crisis period 2009-2013 the average growth in GVA by this sector in Bulgaria was decreased to BGN 1,19 million quarterly or BGN 4,76 million annually. There is a significant decline by more than 12 times of this indicator.

Fig. 7: GVA produced in sector “Information and communication”

Source: NSI.

However, the software sector in Bulgaria reported a five-time growth for the last 10 years, and total revenue of EUR 1,8 billion only for the last 3 years [14]. Approximately 60% of revenues are from export. 12,000 new jobs are created in this sector for the period 2005-2014. The software business is the largest technology employer on 2013 in terms of total wages paid, ahead of telecoms and call centers. Wages are 4 times higher than the average for Bulgaria [14]. ICT sector is a significant part of the economy; it is a typical knowledge-based industry with a high added value. However, the ICT sector in Bulgaria is still restrained by the insufficient number of qualified specialists.

3. Trend of increase of GVA before the crisis and of its strong decline after the crisis.

This trend is observed in the following two economic sectors in Bulgaria:

1) Sector „Construction”.

The building sector has an important place in the Bulgarian economy. During the pre-crisis period this sector was evolving rapidly and covered both construction activity – housing, hotels, resorts, offices, road construction, etc, and industries directly associated with the construction and supply of building materials and products, including products indirectly related to the industry [15].
Bulgaria has recently developed environmental, sustainable and bio-climatic construction. After the country’s accession into the EU in 2007, Bulgaria is targeting European funds under the PHARE, SAPARD and ISPA Programmes. The GVA produced by construction rose by BGN 24.22 million quarterly during the period 2002-2008. The country received about EUR 400 million per year financial assistance from the EU, equivalent to 2% of the GDP. The peak in construction was reached in 2008.

The EU programmes are mostly financing transport infrastructure and environment protection projects stated in the Operational Programmes “Regional Development” and “Transport”. After years of remarkable growth rates, an outstanding performance and an initial delay in 2009, the financial turmoil severely hit the construction sector in the country. Moreover, the EU subsidies for the infrastructure suspended in 2008 could not soften the overall decline in construction works. Thus, following an overall output of EUR 9 billion in 2008, the Bulgarian construction sector entered a new phase of development [16].

The construction sector in Bulgaria was hit hardly by the global financial turbulence. The GVA produced by building industry declined by BGN 16.50 million average on a quarterly basis during the period 2009-2013. This trend was similar to many other EU countries experiencing negative construction growth due to the worsened business climate. Construction companies, building material producers, developers and investors recorded considerable losses. The economic downturn in Bulgaria resulted from the huge drop in foreign direct investment (FDI) flows and the limited bank financing. The renovation programs initiated by the government and international organizations in 2007-2008 have been abandoned. The overall decrease in orders was additionally worsened by the government’s will to keep a balanced state budget by the end of 2009 and thus postponing the payment of more than BGN 500 million to construction companies for already completed works [16].

The key difficulties encountered by the construction industry were the tightened credit conditions, the low demand for new premises, the low investment levels and the lack of confidence in future prospects. Leading segments in the building sector would be road construction due to the large-scale infrastructural projects financed through the EU Programmes. The number and significance of the so-called green projects is increasing, and Bulgaria is a partner in many international activities [17].

2) Sector „Financial and insurance activities”. Since July 1997 the Bulgarian banking system has consistently won praise for its stable and well-capitalized institutions, high liquidity and low risk [18]. However, a severe downturn has been observed since the beginning of the global financial crisis. Credit demand was declined, and loan portfolio quality was worsened while the price of borrowing was remained relatively high. The restricted bank lending was due to the increased risk and the conservative credit policy of banks while no financial support is provided by the central bank to the banks in a currency board arrangement (CBA). This led to excess liquidity for some banks and expansion of non-bank financial institutions in provision of loans to the real sector. In the conditions of a financial crisis such institutions try to replace the banks in their role of lenders, extending loans at less strict conditions, but at a significantly higher interest burden [19]. The overall indebtedness within the non-financial sector in Bulgaria remains high. Newly introduced rules on late payments and revised bankruptcy procedures should facilitate the deleveraging process [20].

During the period 2009-2013 the average growth in GVA by sector „Financial and insurance activities” was negative – BGN 1,47 million quarterly. On an annual basis its decline was around BGN 6 million. In contrast, during the pre-crisis period the GVA produced by this sector increased by BGN 33,69 million quarterly. Its growth on an annual basis was around BGN 135 million.

In June 2014 or 17 years since the CBA’s introduction in Bulgaria, the banking system has come under attack in the worst run on banks. In the days of panic in June jittery depositors on two major Bulgarian commercial banks withdrew more than...
BGN 1 billion from “Corporate Commercial Bank” (CCB) and around BGN 800 million from “First Investment Bank” (FIB). In the third quarter of 2014 these liquidity funds came back again in the banking system, as the big winners were "Unicredit Bulbank" and DSK Bank. On June 30th, the European Commission approved a request by the Bulgarian government to extend an emergency credit-line of EUR 1.7 billion to local banks.

Fig. 9: GVA produced in sector “Financial and insurance activities”

5 Conclusion

Bulgaria is characterized as a country with moderate and stagnating or declining competitiveness, and important structural imbalances. However, the country has managed to preserve its overall macroeconomic stability during the global financial crisis without external help, which is a success in itself. Only in June 2014 an emergency credit-line was extended by the European Commission in order to further increase the liquidity and safeguard its financial system.

The econometric study of GVA produced by economic sectors demonstrates that both sectors “Construction” and “Financial and insurance activities” were hit most severely from the global financial crisis. GVA produced by these sectors significantly decreased during the post-crisis period. Negatively affected, but in a lower extent, were also sectors „Mining and quarrying; manufacturing; electricity, gas, etc.”, „Wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage, etc.” and „Information and communication”. Sector „Agriculture, forestry and fishing” has traditionally declining importance in Bulgarian economy’s development.

Structural imbalances experienced by the country require monitoring and policy actions. Improved business environment would help attracting foreign capital and innovations into productive sectors, which in turn would help preserving competitiveness and safeguarding the strong export performance. Ensuring effective and increased EU funds absorption would help potential economic growth.

References:


