

THE BULGARIAN MINING INDUSTRY IN 2017 – PERSPECTIVES AND FORECASTS

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ABSTRACT. The paper presents the trends in the key economic indicators generated by the global, American, European, Chinese, and Bulgarian economies in the period 2007 ÷ 2017. It gives forecasts for 2018 and 2019.

A brief outline of the external and internal business environment in Bulgaria in 2017 is offered. Analysis is made of the fluctuations of industrial production volumes and production prices in the industrial sector, in the mining and quarrying sub-branch of industry, in coal mining, in metal ore production, and in the extraction of non-metal minerals and raw materials for the period 2008 ÷ 2017. Consequently, the conditions and perspectives for the mining companies that deal with the production and processing of coal, metal ores and non-metal raw materials are outlined.

Keywords: mining and quarrying industry, economic activity, industrial production indices, producer price indices

БЪЛГАРСКАТА МИННА ИНДУСТРИЯ ПРЕЗ 2017 Г. – ПЕРСПЕКТИВИ И ПРОГНОЗИ

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РЕЗЮМЕ. В доклада са представени тенденциите в изменението на основните икономически показатели, реализирани от световната, американската, европейската, китайската и българската икономики за периода 2007 ÷ 2017 г. и прогноза за 2018 и 2019 г. Направена е кратка характеристика на външната и вътрешната икономическа среда на България през 2017 г.

Анализирано е изменението на обемите на промишленото производство и на цените на производител за сектор „Промисленост”, за подотрасъл „Добивна промишленост”, за добив на въглища, за добив на метални руди и за добив на неметални материали и суровини за периода 2008 ÷ 2017 г. В резултат на това са очертани условията и перспективите пред миннодобивните предприятия за добив и преработка на въглища, метални руди, неметални материали и суровини.

Ключови думи: минна индустрия, икономическа активност, индекси на промишленото производство, индекси на цени на производител

Introduction

According to the official information published by the National Statistical Institute (NSI) and considering the data of the INFOSAT information system of NSI, shown in Table 1, a large part of the Bulgarian mining enterprises currently achieve good production and economic results.

Table 1
Key indicators of the mining and quarrying industry

| Indicators | 2015 | 2016 |
|--|-----------|-----------|
| Number of enterprises, num. | 422 | 407 |
| Number of persons employed, num. | 24 862 | 23 963 |
| Value of tangible fixed assets, BGN'000 | 2 434 401 | 2 550 039 |
| Expenses for acquisition of tangible fixed assets, BGN'000 | 268 144 | 316 336 |
| Operating income, BGN'000. | 2 848 348 | 2 704 084 |
| Operating expenses, BGN '000. | 2 542 844 | 2 431 213 |
| Financial result, BGN '000 | 305 504 | 272 871 |

According to the data in Table 1, in 2016, the mining industry witnessed bustling business activity on the part of 407 associations and organisations in the field of exploration,

mining, and processing of underground minerals and related activities and services. The industry employed about 23,963 people who provided just over 5% of the country's gross domestic product (GDP). Another 120,000 jobs were available to serve the companies in this branch of industry. The value of fixed tangible assets exceeded BGN 2.5 billion and tangible assets acquisition costs amounted to BGN 316 million.

The financial result realised from the activity of the mining enterprises in 2016 was BGN 272.9 million, generated by BGN 2.7 billion in revenues and BGN 2.4 billion in operating expenses.

In recent years, the world, the European and much of the national economic systems have continued to recover from one of the deepest recessions in the modern history of the economy, namely the financial and economic crisis of 2008 ÷ 2009. The economic and financial crisis has adversely affected the activity of all mining companies. The situation was critical at the beginning of the crisis when the consumption and production of mining products obtained from various types of underground minerals contracted by between 35% and 70%.

Within the past nine years, increased world production and consumption of metal and energy raw materials has been a favourable factor, initially for the development of the extraction

and processing of energy, metal, and building materials, and then of some of the industrial minerals as well. Unfortunately, the sharp contraction in the consumption of building materials and of part of the industrial minerals in 2009 and 2010 is still a limitation to their production and subsequent processing (Митев, 2015). The decrease in the physical volume of the construction sector measured in terms of the index change in the construction output in 2016 was 16.2% as compared to 2015. This resulted in a decrease of the mining and processing of building and rock-lining materials in 2016.

The aim of this report is to analyse selected statistical economic and market information and to outline the current state and the development trends of the Bulgarian mining enterprises under the conditions of increased mining of metal ores and concentrates due to: external demand for end metals, basically on the European and world markets; increased domestic consumption of power coal; and a contracted but growing domestic consumption of building materials, rock-lining materials, and industrial minerals.

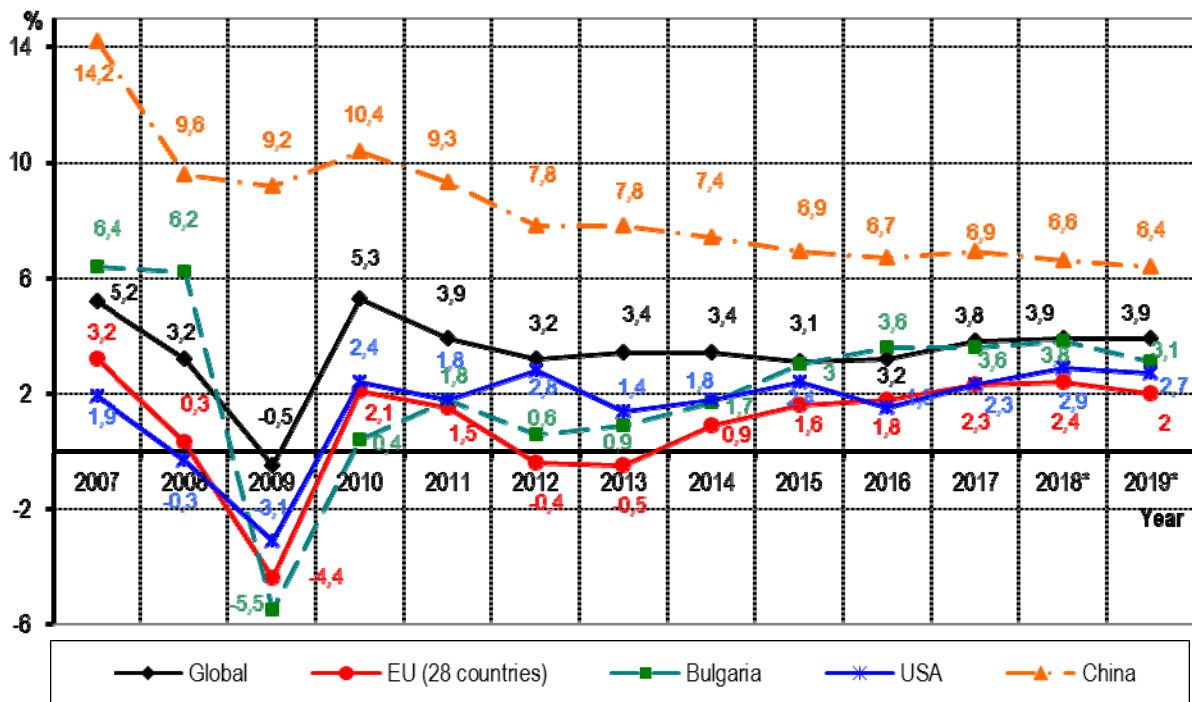
Economic activity

In 2017, the economic activity increased but remained at a relatively low level. The main reasons for the slight improvement in economic activity indicators, namely the actual gross domestic products, were the result of continued fears about the financial health of part of the highly developed European Union (EU) economies and the forthcoming exit of the UK from the EU. The consequences of the global financial and economic crisis of 2009, the subsequent debt spiral, the forthcoming UK exit from the EU, the recorded weak growth of

the major EU economies, the high budget deficits, and the increasing indebtedness of the public sector were not only impossible to overcome in a number of countries, but were aggravated. All of these were reflected in the growing yield of newly issued securities in the countries of the southern arc of the EU, to which Bulgaria belongs.

Figure 1 presents the dynamics of change in the real GDP in the global, American, European, Chinese, and Bulgarian economic systems for the period 2007 ÷ 2017 and the forecast for the development of the indicator for 2018 and 2019. The figure is based on data from the annual reports of the International Monetary Fund (IMF) for the period 2009 ÷ 2018 and on Eurostat data for the same period.

The graphical representation of the data in Fig. 1 reveals that in the past three years the rates of economic activity in Bulgaria were close to those worldwide as a whole and higher than those of the USA and the EU. The tangible difference from China's economic activity is fully explainable. This information might sound reassuring to many people, but keeping in mind the basis on economic activity is realised, Bulgaria's purchasing power remains extremely low. Moreover, the forecasts presented in Fig. 1 for the growth of the real GDP of the various world, European, and national financial institutions are not unequivocal and are characterised by high dynamics. However, they project the financial experts' expectations of for the future development of the individual economic systems and will subsequently be subjected to repeated revisions during the different periods.



* - forecast data

Fig. 1. Dynamics of change in the real GDP in the global, American, European, and Bulgarian economic systems for the period 2007 ÷ 2017 and forecasts for 2018 and 2019

The real GDP growth of Bulgaria for the year 2017 was 3.6%. The European Commission (EC) and the IMF forecast that in 2018 it will amount to 3.8%, whereas in 2019 it is going to fall to 3.1%. The European Commission predicts that in 2018, the real GDP growth for the entire European Union will be 2.4% and 2.0% in 2019. According to the European Commission, the weak but continuing increase in demand on the intra-European market will still be the main driving force of the moderate economic EU growth to the end of 2019.

The World Bank predicts that in 2018, Bulgaria will enjoy stable economic growth, but in the next two years the growth is expected to slow down. In 2017, the country's economy grew by 3.6%, with expectations for 3.8% in 2018. In the following two years, 2019 and 2020, forecasts are for a return to the levels of 3.6%. This indicates a slight downward correction in relation to the previous report from January, when the institution's expectations were for a growth of 3.9% and 4.0% for 2018 and 2019 respectively, and of 3.9% in 2020. The World Bank also notes that there is an increase in the inflation expectations for this country, as well as for some other states in Central and Eastern Europe.

External and internal business environment of the Republic of Bulgaria in 2017

In 2017, for another year in succession, Bulgaria's economic environment was characterised by high uncertainty, slightly increasing economic activity, political instability, and the consequences of the bankruptcy of one of the six largest banks in the first half of 2014. The factors that probably contributed most to this were the economic uncertainty and the continuing financial difficulties, particularly in Greece and to a lesser extent in Spain, Portugal, Italy, Cyprus, Slovenia, and Hungary, as well as the weak economic growth in Europe in general.

In 2017, the economic growth across the globe accelerated by 0.6 basis points in relation to 2016. Against the background of uncertainty and increasing tension on the financial markets, the expectations of business and consumers were still moderately pessimistic. In a short-term period, the adverse effects were due to the significant structural confusions, especially in the developed European countries, as well as to the slowdown in the Chinese economy. As a result, the recovery of the global economy is expected to slow down, even in a medium-term period.

The uncertain and often incoherent policies and actions of the EU institutions to deal with the emigration wave and with the deepening debt crisis, mainly in Greece but also along the southern arc of Europe, are causing instability. Further pressure is exerted by the continued military conflict on the Arabian Peninsula and the political tension between the United States and Russia. These factors increase the feeling of insecurity, which is why a large part of the investors are extremely cautious and refrain from starting new projects in anticipation of more favourable times.

During most of 2017, the economic activity throughout the world maintained a relatively good level. This was influenced by the stabilisation and the slight price rise of the basic stock

exchange commodities, incl. the prices of energy carriers in the energy sector, as well as by the continued high, though shrinking, growth of 6.9% of the Chinese economy, which is the largest resource user and exporter of end products. Global economic growth rose from 3.2% in 2016 to 3.8% in 2017. The largest contributors to this increase were most of the member countries of the Organisation for Economic Co-operation and Development (OECD), including the Euro zone countries, among them the major commercial partners to Bulgaria such as Germany, Spain, France, the Netherlands, Norway, and others.

On the national level, there have been no significant changes in the economic policy of Bulgaria. It is still more or less passive to what is happening in Europe and in the world. Ultimately, the financial year 2017 can be described as a year of moderate economic growth of 3.6% in the real GDP and of tight fiscal policy. Under these circumstances, the survival and preservation of assets remained the main task for the majority of private and state-owned companies and for the households as well. The main motive power of the economy, namely the domestic consumption in the country, remained low due to the still weak purchasing power of the population and the rising prices.

The average annual gross salary with the paid annual bonuses in the country in 2016 marked a growth on an annual basis of BGN 844 or 8.0%. However, against the background of the still high unemployment rate of 7.6% for the year, this led to a slight increase of household incomes and to the stimulation of domestic consumption. In 2017, incomes continued to grow by 11.6%, unemployment declined to 6.2%, but annual average inflation rose to 2.

According to data from NSI, in 2017, Bulgarian exports increased by 10.7% compared to 2016 and amounted to BGN 52.2 billion at FOB prices. Bulgaria's main commercial partners are still the EU countries which account for 69.1% of the country's exports. Bulgarian import increased by 15.5% in 2017 compared to the previous year and amounted to BGN 59.2 billion at CIF prices.

Bulgarian foreign trade balance (FOB export - import FOB) in 2017 was negative and was worth BGN 3.1 billion which is an increase by 292.7% compared to 2016. The largest volume in terms of value was that of goods imported from Russia, Germany, Italy, Romania, Greece, Turkey, Spain, Hungary and France (NSI, 2018).

Indices of the industrial production of Bulgaria

Figure 2 shows the industrial production indices of Bulgaria for the period between the first quarter of 2008 and the first quarter of 2018 for the "Industry" sector of the economy, for the "Mining and quarrying" sub-sector, for coal mining, for the metal ore production, and for the extraction of non-metal minerals and raw materials. The figure is based on data from the NSI, with monthly data recalculated on a quarterly basis.

Figure 2 shows that since the autumn of 2016, Bulgaria's industrial production has been characterised by a moderate

and steady weak growth with strongly manifested seasonal nature, most evident in 2013. This statement is also valid for the "Mining and quarrying" sub-sector.

In general, Bulgaria's industrial production has had weak but steady growth with a low seasonality and is already reaching pre-crisis levels.

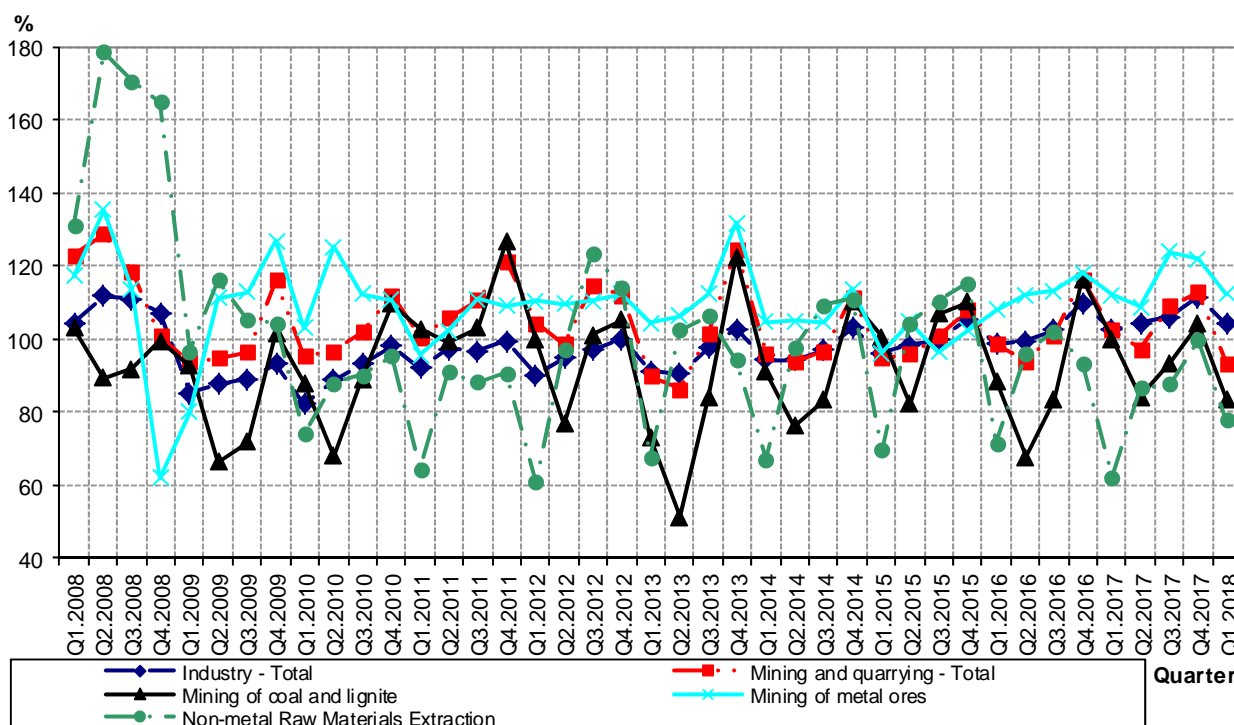


Fig. 2. The quarter industrial production indices in Bulgaria for the period between the first quarter of 2008 and the first quarter of 2018 for the "Industry" sector, for the "Mining and quarrying" sub-sector, for the production and processing of coal, metal ores, and non-metal raw materials (Seasonally unadjusted, 2015 = 100%)

Coal mining during the second quarter of 2013 reached the point of highest decline for the period 2008 ÷ 2017. From 2013 to 2017, coal mining manifested weak growth with a high seasonality. This can be attributed to the increase of the relative share of the coal generated electricity during the winter heating period when the growth was at about 55 basis points. The apparent strong trend of seasonality in the production and consumption of electricity from coal in Bulgaria has been preserved.

The mining of metal ores since the beginning of the financial and economic crisis has recovered most rapidly and since January 2009 it has recorded a moderate growth with a low fluctuation due to the high dynamics of the traded volumes on the commodity exchanges. Nevertheless, production volumes fluctuate between 60 and 90% of the pre-crisis ones. In 2017, metal ore mining grew compared to the previous 2016. The dynamics of the production and sales volumes of metal ores during the individual quarters of 2017 was not subject to a specific seasonality but was due to the varying consumption and production of metals worldwide.

The extraction of non-metal minerals and raw materials decreased slightly in 2017 compared to 2016. The mining of building and rock-lining materials registered the most significant decline in the period following the financial and economic crisis. The change in indices of the industrial production of non-metal minerals and raw materials also outlined the strong seasonal nature of the production and

consumption of the above with sharp declines over the winter months and growth during the other periods.

As a whole, in 2017, mining industry recorded a slight increase over the previous year. This was the result of the rise in the mining of coal and metal raw materials. In the third and fourth quarters of 2017, the extraction of minerals recovered rapidly and at the end of the year it reached volumes that were lower yet close to those before the crisis.

Producer price indices in Bulgaria

Producer price indices reflect the dynamics of production and consumption on the mineral raw material market. With a sustained rate of change in producer prices within several consecutive periods, they can be considered as an early indicator of the trend of movement of a particular sector or of the entire economic system. As key short-term business indicators, they direct the trends in consumer inflation (or deflation).

Figure 3 shows the producer prices indices in Bulgaria on the domestic and the international market for the period between the first quarter of 2008 and the first quarter of 2018 for the sector of industry and the sub-sectors of: "Mining and quarrying"; coal mining; metal ore mining; and extraction of non-metal minerals and raw materials. The figure is based on data from the NSI with the monthly data recalculated on a quarterly basis.

It can be seen in Fig. 3 that the producer prices in industry recorded a slight increase of 1.3% over the period analysed. From 2013 onwards, there has been a slight growth of 11.3%.

For the mining and quarrying sub-sector, there has been a significant drop of 24.0% since 2008, mainly due to the lowering prices of non-metal minerals and raw materials.

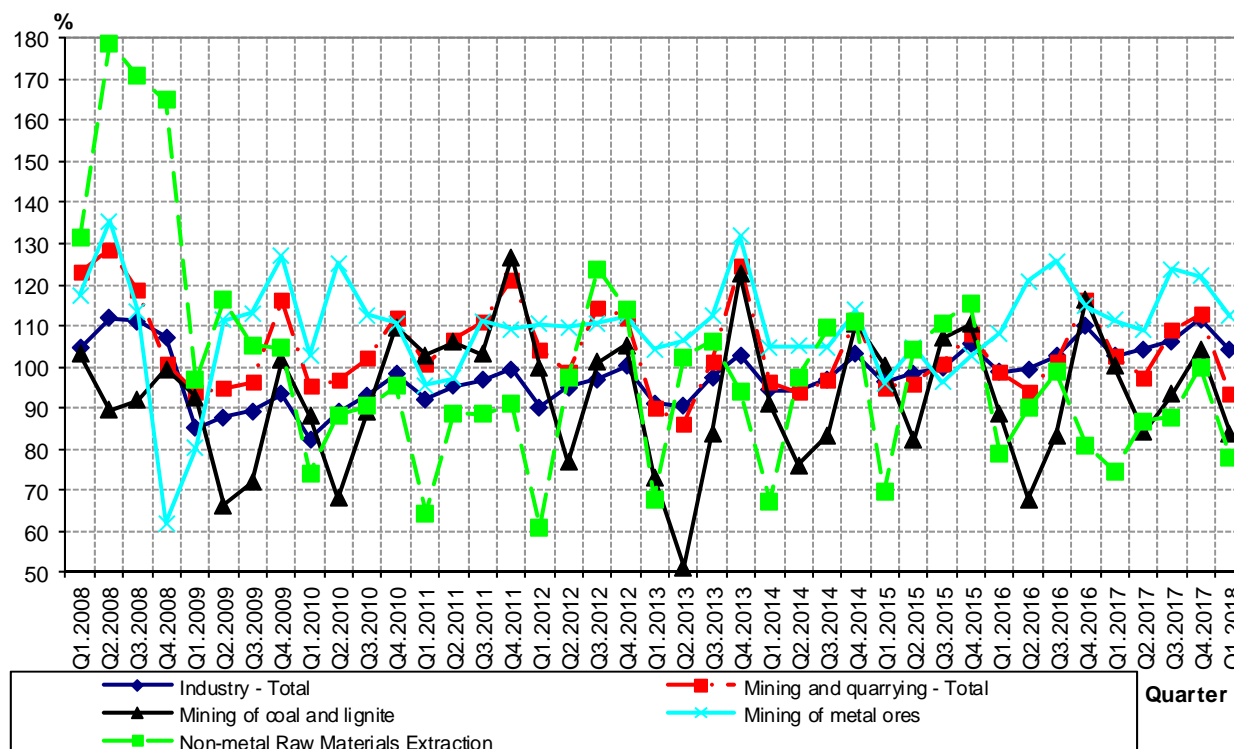


Fig. 3. The quarterly producer price indices in Bulgaria for the period first quarter of 2008 ÷ first quarter of 2018 for sector “Industry”, for sub-sector “Mining and quarrying”, and for the production and processing of coal, metal ores, and non-metal raw materials (Seasonally unadjusted, 2015 = 100%)

Producer prices for metal ore mining in 2017 saw a slight growth of 8.9% but this could not compensate for the declines in 2013, 2014, and 2015. Here, prices were characterised by a relatively lower fluctuation than those of the other types of underground natural resources.

Producer prices for coal mining in 2017 showed a slight increase of 4.2% compared to the previous year, due to the slight decline in prices of energy carriers in the course of the year, as well as to the still shrunk electricity consumption. Coal prices were influenced by the prices of the other sources of energy, the high level of state regulation, and the long-term contracting of the supplies from two of the three coal-fired power plants in the East Maritsa coal basin.

With the mining of non-metal minerals and raw materials, prices are lower than those prior to the economic crisis. In 2017, they were characterised by a slight increase of 6.7% and a strong seasonal nature.

Conclusion

Data released by the IMF, Eurostat, and the NSI clearly indicate that in 2017 the Bulgarian economy reported a real growth of 3.6% and the prospects for 2018 and 2019 are for a moderate growth of 3.8% and 3.1% respectively. In 2017, this country's national economy was in a state of moderate inflation (2.1%), declining unemployment rate (from 7.6% in 2016 to

6.2% in 2017) with an increase of the gross monthly salary of 11.0% (from 1012 BGN in 2016 to 1123 in 2017), and a still shrunk domestic consumption.

The main factors for the weak economic growth of the Bulgarian economy are still the following: low budget receipts and the reduction of budgetary expenditures; the shrunk but growing consumption of the households; the weak and uncertain growth of exports; the low level of foreign investment; the rising prices of energy carriers, raw materials, and metals in a period of limited domestic consumption; the weak growth of the industrial sector, tourism, agriculture and construction; the low yet slightly increasing investment activity.

The high dynamics of commodity markets and the ongoing economic instability determine the high levels of uncertainty about future developments, which is why investors are still restraining their economic activity.

Unemployment and wage levels limit the incomes of the population and aggravate the welfare expenditure of the state, as a result of which the expectations for a significant increase in domestic consumption are still pessimistic.

The commitment of the Bulgarian economy to the countries of Central and Southern Europe predetermines the high degree of dependence of our national economy on the development of investment activity in these regions of the EU.

The prospects for the Bulgarian mining enterprises that operate in the fields of extraction and processing of metallic minerals have remained favourable despite the weak growth of the production and prices of metals in 2017. Due to the predominant export nature of the produced concentrates and end metals, the long-term prospects for the volume of production are bound up with the expectations for the development of the European and world markets.

While prices for metals were characterised by high dynamics and growth in 2017, they have remained at such levels that favour the efficient production of metals.

The future mining of energy coal is predetermined by the coal share within the energy mix, by the still limited domestic consumption of electrical energy, and by the weak seasonal growth in export levels.

Although the prices of energy coal in 2017 declined, they have remained at such levels that favour their efficient open-cast mining. However, underground coal mining is significantly lower, which limits investment and results in the reduction of production volume.

The Bulgarian enterprises from the area of mining and processing of industrial minerals declined in 2017 and the prospects remain pessimistic due to the limited consumption of products for the chemical and food processing industries in Europe.

In 2017, the construction sector of the economy witnessed a slight increase of 4.5% in the building activity, compared to the drop of 16.2% in 2016 in relation to 2015. Construction activity is expected to maintain its slight growth in the coming years. The consumption of building and rock-lining materials has remained at such levels that are still way behind the volumes before 2008. In the long terms, however, it is expected to gradually rise. The first half of 2018 has seen an increase in the total number of permits issued for the construction of residential, administrative, and other buildings, as well as a rise in the already started construction of new buildings. This is an indicator of the expected growth of construction output in 2018 and of the consequent increase in the production and consumption of building and inert materials.

Considering the non-renewable nature of mineral resources, the sustainable development of the global, the European, and the Bulgarian economies is impossible without increasing their production and consumption. This sets high requirements to the individual companies in Bulgaria concerning the solving of the tasks for the long-term provision of the necessary energy, metal, industrial, and building materials, the demand of which will continue to rise in the future.

References

- Митев, В. Българската минна индустрия през 2014 г. – перспективи, очаквания и прогнози. – Годишник на МГУ „Св. Ив. Рилски“, т. 58, св. IV, С., ИК „Св. Ив. Рилски“, 2015, - 17-22. (Mitev, V. Bulgarskata minna industria prez 2014 g. – perspektivi, ochakvania i prognozi. – Godishnik na MGU “Sv. Ivan Rilski”, t. 58, sv. IV, Sofia, IK “Sv. Iv. Rilski”, 2015. – 17-22.)
- Industrial Production Indices, JUNE 2018. National Statistical Institute, Sofia, 2018, available at: www.nsi.bg/en/content/6801/seasonally-unadjusted-2015-100 (accessed 22 June 2018).
- Main Economic Indicators of Non-Financial Enterprises by Size of Enterprises in Terms of Employed and Economic Activity Groupings, available at: https://infostat.nsi.bg/infostat/pages/reports/query.jsf?x_2=789, (accessed 22 June 2018).
- Real GDP growth rate – volume, June 2016, available at: <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/>. (accessed 22 June 2018)
- National Statistical Institute, Statistical Yearbook 2017, Sofia, 2018.
- Total Producer Price Indices, June 2018. National Statistical Institute, Sofia, 2018, available at: <http://www.nsi.bg/en/content/6870/total-producer-price-indices-2015-100> (accessed 22 June 2018).
- International Monetary Fund, *World Economic Outlook: Crisis and Recovery*. April 2009. - 2.
- International Monetary Fund, *World Economic Outlook: Cyclical Upswing, Structural Change*. April 2018. -14-15.
- International Monetary Fund, *World Economic Outlook: Rebalancing Growth*. April 2010. - 2.
- International Monetary Fund, *World Economic Outlook: Growth Resuming, Dangers Remain*. April 2012. - 2.
- International Monetary Fund, *World Economic Outlook: Tensions from the Two-Speed Recovery*. April 2011. - 2.
- International Monetary Fund, *World Economic Outlook: Too Slow for Too Long*. April 2016. - 2-3, 36.
- International Monetary Fund, *World Economic Outlook: Uneven Growth: Short- and Long-Term Factors*. April 2015. - 2.
- International Monetary Fund, *World Economic Outlook Update: Cross Currents*. January 2015. - 2.
- International Monetary Fund, *World Economic Outlook Update: Gradual Upturn Global Growth during 2013*. January 2013. - 2.
- International Monetary Fund, *World Economic Outlook Update: Recovery Strengthens, Remains Uneven*. April 2014. - 2, 184.