



## EU MEMBERSHIP, ECONOMIC GROWTH AND INVESTMENT IN BULGARIA

Iskra Christova-Balkanska

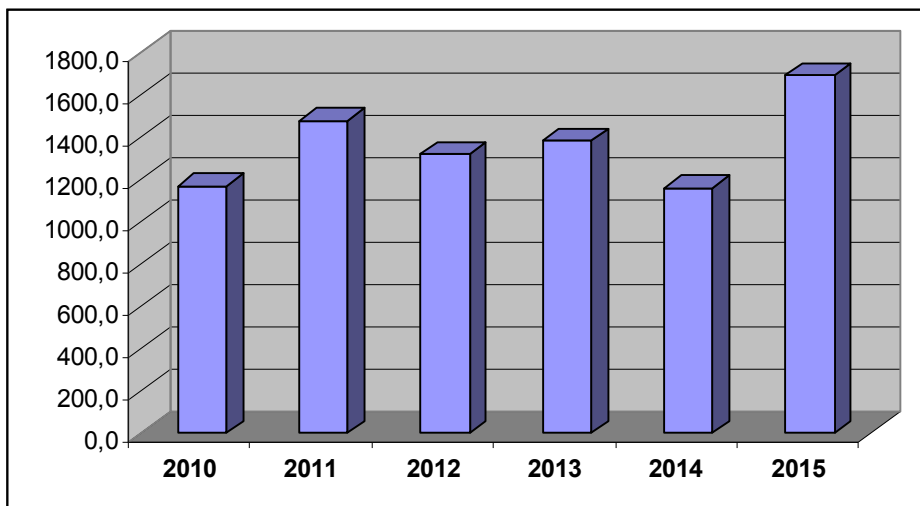
Institute for Economic Research, Bulgarian Academy of Science, Sofia

**Abstract:** This report is devoted to the analysis of some important questions, dealing with the following topics: How Bulgaria’s integration into the EU structures influenced for the economic growth in the country? What is the effect of EU integration on labor productivity in Bulgaria? What are the main economic challenges facing Bulgaria for the amelioration of the process of catching up?

**Keywords:** EU membership, economy, growth, investment

### EU INTEGRATION AND ECONOMIC DEVELOPMENT OF BULGARIA IN THE POST CRISIS PERIOD

The economic situation in Bulgaria changes during the post-crisis period. The economic growth fluctuates around 1% and start to growth after 2015. Many sectors of the economy are slow to recover from the economic downturn due to the low level of domestic and foreign investments, the weak domestic and foreign demand for Bulgarian goods and the weak domestic consumption. A positive trend in the aftermath of the crisis is the increase in FDI in the industrial manufacturing sectors, namely in the processing industry, in the production and distribution of electricity and, to a lesser extent, in the extractive industries. In recent years, investments in the trade and repair of motor vehicles and motorcycles have increased. Foreign investments remain relatively stable and high in the financial, insurance and real estate sectors.

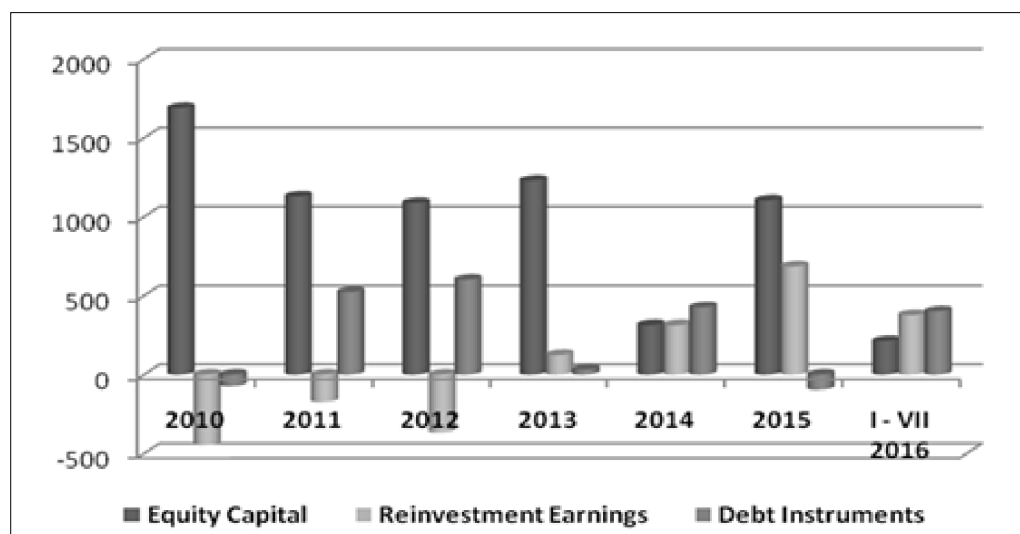


Source: Bulgarian Central Bank

**Fig. 1.** FDI in Bulgaria by years 2010-2015 in million EUR

In the period 2011–2015, FDI in Bulgaria as a percentage of GDP amounted to an annual average of 3.3%. Net FDI in Bulgaria amounted to EUR -25.5 million (October 2016), decreasing annually (EUR 137.8

million in October 2015). Cumulatively, for the period January-October 2016, FDI amounted to 942.1 million, against nearly 1.7 billion for the same period in 2015.



Source: Bulgarian Central Bank

**Fig.2.** Share of FDI in Equity capital, Reinvested Earnings, Debt Instruments Annual data, 2010-January-July

In 2010 – June 2016 the share of FDI in equity capital is the highest and averages EUR 1,091.5 million per year on average. Reinvested earnings, which express the real extent of FDI absorption in the economy, are positive after 2013 and show a trend of growth, but this magnitude is unstable. Investment in debt instruments amounts to an average of EUR 235.1 million per year.

The post-crisis development of the Bulgarian economy shows that Bulgaria covers and even surpasses some Eastern European countries in terms of the implementation of the Maastricht criteria, which are a prerequisite for a full membership in the Economic and Monetary Union (EMU). Under the criterion of “Harmonized Index of Consumer Prices” (HICP) (the annual average rate of inflation for 12 months), in the post-crisis period Bulgaria is experiencing deflation at times, due to the superposition of several unfavorable factors in the economy, but generally speaking Bulgaria is far below the reference inflation rate after 2013.

Regarding the criterion of the government budgetary position, in 2015 the general government balance in all countries that are not members of the euro area is level with, or below the deficit reference value of 3% of the GDP. In 2015, the debt in relation to the GDP was below 30%, and the debt itself was well below the values registered in other countries which are not part of the euro area. In Bulgaria, the long-term interest rate stood at 3.5% throughout the May 2013 – April 2014 period and at 2.5% throughout the May 2015 – April 2016 period

It is stressed that the Bulgarian economy and finances are integrated with the euro area through trade, investment and through foreign subsidiary banks, which operate on the Bulgarian banking market. There is still uncertainty in the financial sector, intercompany indebtedness remains high and the labor market is subject to limited regulation.

**Table 1.** Main macroeconomic indicators for Bulgaria

Indicators	2008	2009	2010	2011	2012	2013	2014	2015
<b>Real GDP (y-o-y) (%)</b>	5.8	-5.5	0.7	1,6	0,2	1.3	1.6	3,0
<b>Gross capital formation (y-o-y)</b>	22.0	-17.4	-18.3	-4.6	2.0	-0.1	2.3	-2.3
<b>Budget deficit (-) / surplus (+)% of GDP</b>	1.6	-4.1	-3.1	-2,0	-0,3	-0,4	-5,4	-2,1

<b>Government debt (Maastricht debt) % of GDP</b>	13	13.7	15.3	15,2	16,8	17,1	27,0	26,7
<b>Export of goods and services (y-o-y)%</b>	2.5	-11.7	17.2	34,4	3,2	7,8	-0,9	4,2
<b>Import of goods and services (y-o-y)%</b>	4.9	-21.5	4.1	22,4	8,8	2,0	-1,4	3,1
<b>Inflation (HICP) average (y-o-y) (%)</b>	12.0	2.5	2.9	3.4	2.4	0.4	-1.6	- 1,1
<b>Unemployment rate (%)</b>	5.6	6.8	10.3	10,4	11,4	11,8	10,7	10
<b>Current account of the balance of payments (% of GDP)</b>	-23.1	-8.9	-1.48	0.3	-0,9	1,3	0,1	0,4
<b>Trade balance (% of GDP)</b>	-20.6	- 8.2	-2.48	-6,6	-9,6	-7,0	-6.5	-5,9
<b>Long-term interest rate **</b>				5,36	4,50	3,47	3,35	2,49

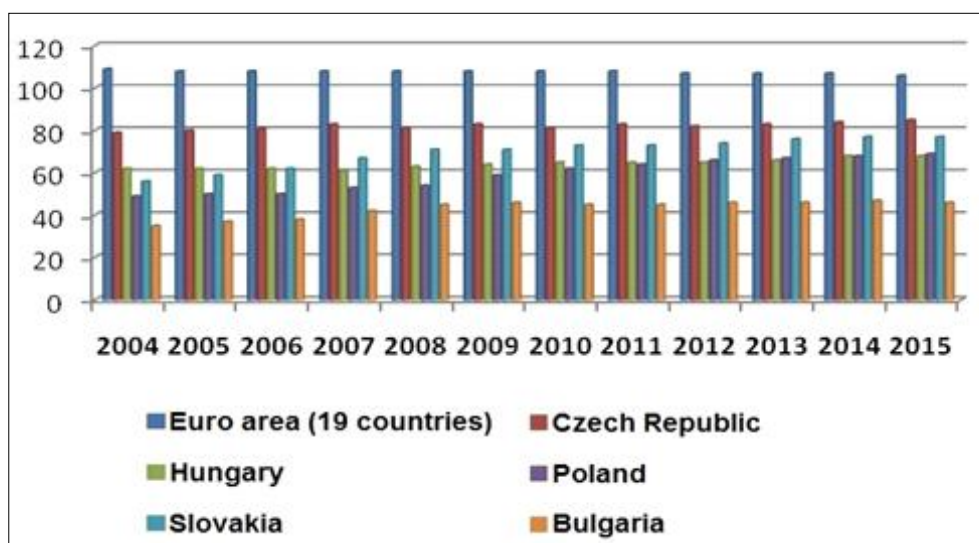
\* Annual percentage change (y-o-y) - change compared with the previous year (or period)

\*\* Long-term interest rate for assessing the degree of convergence

Source: NSI, BNB

Bulgaria's economic growth is closely tied to the economic and social development of the EU. The economic growth in Bulgaria in the years before the economic crisis is positive and fluctuates around 5%, but the real GDP in Bulgaria increases by 2.3% throughout the period 2006–2015 and by only about 1.5% throughout the period 2011–2015. It is higher than the average level for the euro area countries, but it does not contribute significantly to the reduction of the gap in the economic field. In this regard, the fulfillment of the nominal criteria is necessary, but the matter of the real economic convergence of Bulgaria in the EU remains important as well.

The comparison between the GDP per capita based on the PPS of the EU Member States from Central Europe with that of Bulgaria shows that this indicator raises the most in Poland and Slovakia in the 2004-2015 period.



Source: Eurostat

**Fig. 3.** GDP per capita based on purchasing power standards (PPS) EU28 = 100 annual data for the 2004-2015 period

During this period, the GDP per capita remains at virtually the same level in Hungary and the Czech Republic. This indicator rises by several percentage points in Bulgaria, which shows that the country is lagging behind in comparison with the countries of Central Europe. The GDP per capita in Bulgaria amounts to 41.2% out of 100% in the euro area, while in the period 2011-2015 it is 42.7%. GDP per capita based on PPS Bulgaria is lagging behind the average level of some of the Central and East European countries.

## LABOR PRODUCTIVITY AND COMPETITIVENESS OF BULGARIAN ECONOMY

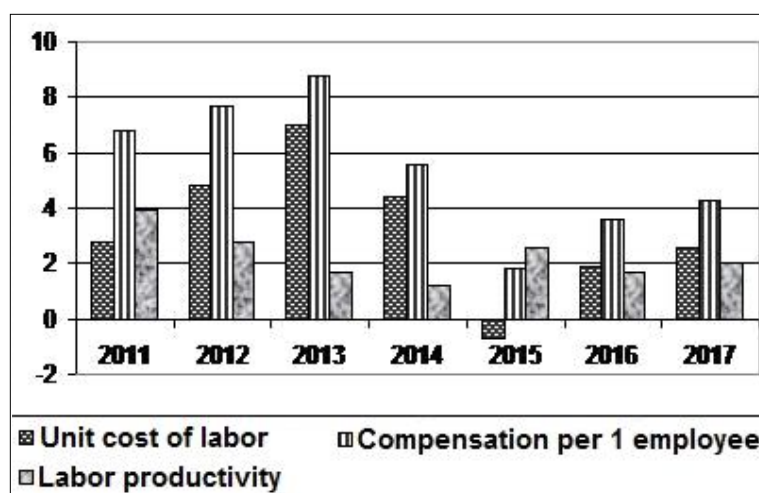
The rising rates of economic growth are having a positive impact on the production and consumption of goods and services. They should grow faster in a weaker economy in comparison with the development rates of production in a developed economy. The aim is the convergence of the levels of production and consumption in the EU. The basis for this assertion lies in increasing the labor productivity and the added value created by a worker in 1 hour of work. The real change in labor productivity demonstrates the capability of the country for EU economic convergence of Bulgaria.

After Bulgaria became an EU member, some improvement could be seen in the key indicators that are relevant to the improvement of labor productivity in the Bulgarian economy, such as the real GDP, the GDP per capita, the relative price level, the wages per employee, etc.

The low labor productivity is an obstacle to the process of the income convergence of Bulgaria with other EU countries. Bulgaria's membership in the EU is clearly not a fundamental factor that will automatically lead to an improvement in labor productivity.

What matters are other factors related to the structure of production and the prospects for its development. The pace of economic growth, though positive, cannot compensate for the imbalances accumulated in the economy in the past and it cannot boost productivity.

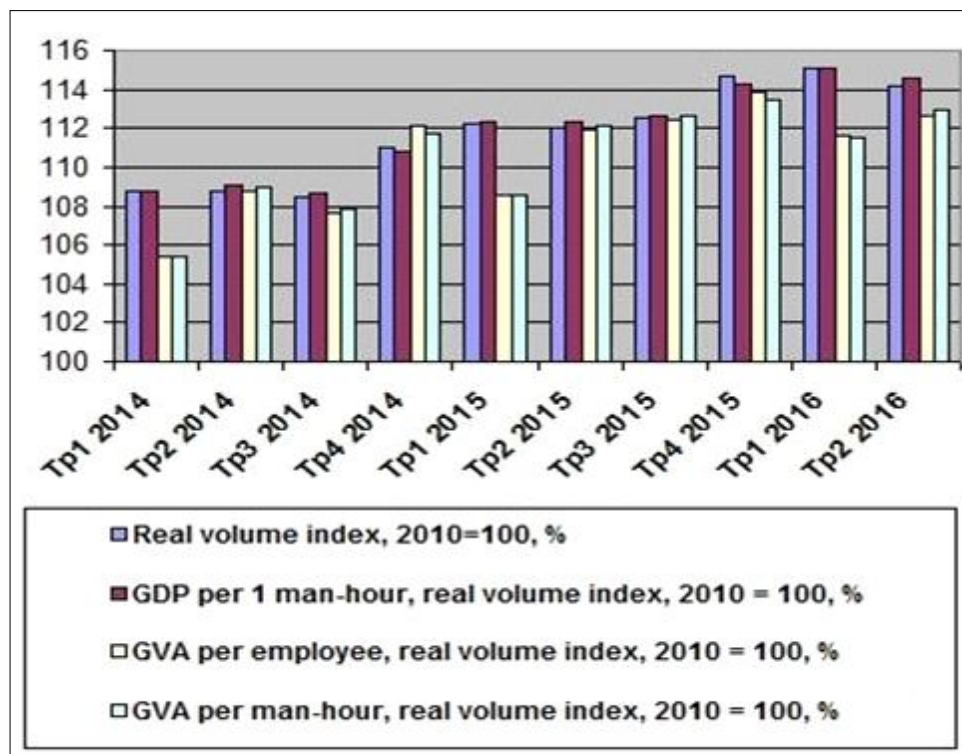
The World Bank report for 2015 emphasizes that the labor productivity of the Bulgarian economy is the lowest in comparison with those of the countries of Central and Eastern Europe (Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia and Romania) and that it is below the average level of labor productivity for the entire EU. Raising labor productivity is a function of several factors such as demographic trends, indicators of workforce qualification and level of innovation and new technologies in the industry. Due to the negative demographic indicators in Bulgaria, improving labor productivity depends on the implementation of effective and innovative production and instead of only relying on the expansion of the services sector in the domestic economy. The convergence of incomes and the improvement in labor productivity affect the dynamics of the convergence of price levels in Bulgaria in comparison to those of other EU countries. In the short-term, fluctuations in the nominal exchange rate, the changes in food prices and the effective use of resources affect inflation differentials, which in turn prevents price convergence. Some structural factors, such as trade liberalization and competition in the commodity markets also affect real convergence. Standing at 100% for the euro area, the price level in Bulgaria increases from 47.5% in the period 2006-2015 to 48.3% in the period 2011-2015.



Source: Eurostat

**Fig.4.** Unit labor cost in the Bulgarian economy; Compensation per employee for the entire economy; Labor productivity for the entire economy; annual percentage change

The unit labor cost is an indicator for defining the competitiveness of production. The unit labor cost in Bulgaria amounted to 5.8% throughout the period 2006-2015 and that it fell to 3.6% in the period 2011-2015. The labor productivity in the period 2006-2015 totaled 2.4%, while in the period 2011-2015 it declined. Compared to other countries in Central and Eastern Europe, it would seem that wages in Bulgaria are growing at a higher rate even when they are not consistent with labor productivity. Wage growth is higher compared to the growth in labor productivity, which affects the level of cost competitiveness. Calculated based on the purchasing power standards (PPS), wages in Bulgaria amount to 37% of the EU average.



Source: Eurostat

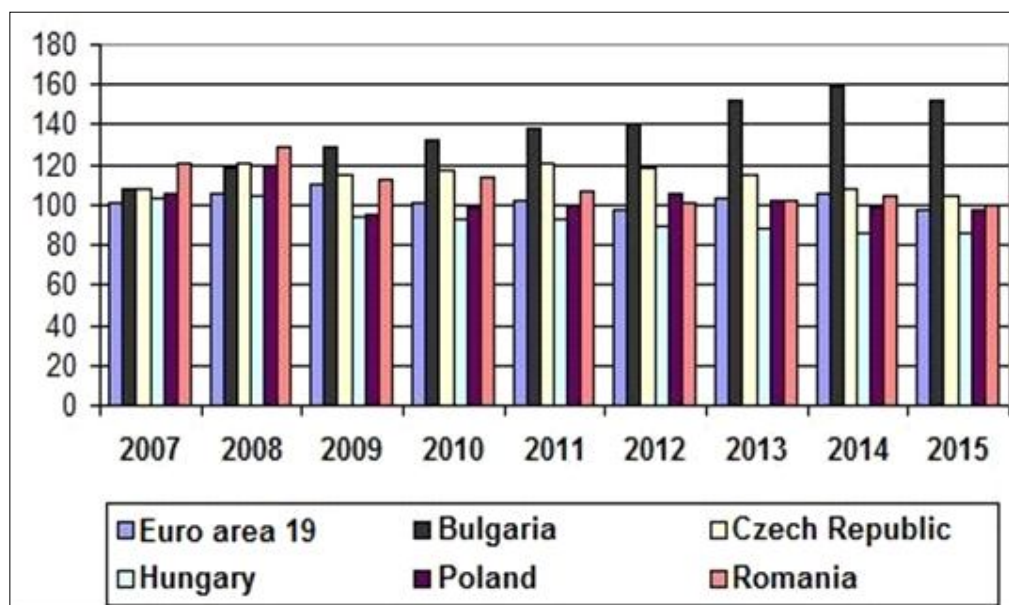
**Fig.5.** Real volume index 2010 = 100, in %; GDP per 1 man-hour, real volume index 2010 = 100, in %; GVA per employee, real volume index 2010 = 100, in %; GVA per man-hour, real volume index 2010 = 100, in %.

The increase in the unit labor cost does not affect the foreign trade of Bulgaria. This is due to some improvement in the indicators characterizing the external competitiveness of Bulgarian exports. The growth of the GVA per man-hour is compensated for by the effects of non-price factors such as improving the quality of products for export, the availability of favorable export prices and reductions in the prices of oil and basic raw materials for the production of goods, etc. It would seem that Bulgarian external competitiveness is influenced positively by the low level of wages in the EU.

According to data from 2013, the average hourly pay for work done in the EU-28 (excluding wages in agriculture and public administration) amounted to € 23.7 for the EU and € 28.4 in the euro area countries (17 Member States (EU17)). The average hourly pay per man-hour in the EU does not reflect the significant differences that exist between the countries. In Bulgaria, one unit of work done is paid an average of € 3.7, while in Romania it is paid an average of € 4.6. The low hourly wages of labor in Bulgaria do not mean that the country earns good competitive positions against counterparties in the EU, because the level of labor productivity in Bulgaria is lower.

The appreciation of the equilibrium real exchange rate shows that convergence is taking place at the price level, which is the consequence of economic catch-up. The real effective exchange rate (REER) (or the relative indicator of price and cost, which measures competitiveness against the key competitors of the country on the international markets. The REER depends not only on changes in the exchange rates, but also on trends in prices and costs.

The REER in Bulgaria began to deteriorate after 2009. In recent years, the level of this index for Bulgaria has increased by 60% in comparison to the levels in 2005, when it was adopted as being = 100, which means that the competitiveness of Bulgaria is deteriorating in comparison to its level before the crisis and in comparison to the competitiveness of the countries of Central Europe and Romania.



Source: Eurostat

**Fig. 6.** Real Effective Exchange Rate (REER) in relation to the 37 trade partners of Bulgaria, euro area – 19 countries, the Czech Republic, Hungary, Poland and Romania. (2005 = 100).

The deteriorating position of export competitiveness shows that Bulgaria still has not overcome the macroeconomic imbalances accumulated as a result of the economic crisis. The strictly fixed exchange rate of the lev under the rule of the Currency Board does not allow exchange rate fluctuations in order to gain competitive advantages. It cannot be assessed to what extent the domestic firms that work for export are experiencing the pressure of changes in international prices and what the possible future costs conclusions that can be made are. The movements of the REER, which show the deterioration in competitiveness, suggest that the process of the real economic convergence of Bulgaria is slowing down. For Bulgaria, improving the labor productivity and the competitiveness of production is an important challenge for its economic catching-up within the EU, as well as in comparison with the Central and Eastern European EU Member States.

## CONCLUSION

Bulgaria has done a lot of efforts to stimulate economic growth and labor productivity, although the improvement of the competitiveness of the Bulgarian economy depends on the processes in the EU. Bulgaria's membership in the EU does not mean an automatic and rapid economic convergence. As stated, the Member States are part of different business cycles and they have varying degrees of economic and social development. The process of income convergence is a function of the improvement in labor productivity and of the increase in the competitiveness of products in foreign markets. The country should implement targeted policies in all areas of the economy in order to provide the necessary support for stimulating the process of income convergence. The development of an efficient industry and the application of innovative technologies, combined with investment in the education and skills of the labor force are a priority. The deepening of the differences in the economic development and the economic business cycle does not allow mechanical cohesion, because the results can backfire and strengthen divergent economic factors, which does not contribute to real economic convergence between the countries.

## REFERENCES

1. Andor, L. 24.10.2014, *Cohesion and Convergence in Europe*, Lecture at Warsaw School of Economics, European Commission, viewed 1 September 2017, <[http://europa.eu/rapid/press-release\\_SPEECH-14-722\\_en.htm](http://europa.eu/rapid/press-release_SPEECH-14-722_en.htm)>.
2. Bartosz, J. & Ponikowski, H. July 1–2, 2014, *Real convergence, economic crises and EU cohesion policy*, Cambridge Conference Business&Economics, Cambridge, UK, viewed 1 September 2017, <[www.gcbe.us/2014\\_CBEC/data/Bartosz%20Jozwik,%20Henryk%20Ponikowski.doc](http://www.gcbe.us/2014_CBEC/data/Bartosz%20Jozwik,%20Henryk%20Ponikowski.doc)>.
3. *Bulgaria: A Program for Financial Sector Assessment – a detailed assessment of the compliance with the Basle Core Principles for Effective Banking Supervision*, October 2015, Country report 15/295, IMF, viewed 1 September 2017, <<https://www.imf.org/external/np/rosc/bgr/banki.htm>>.
4. Christova-Balkanska, I. 2014, Economic Development of Bulgaria and Romania in the Post Crisis Period, *Journal Of Financial and Monetary Economics*, vol. 1, Annual Review, “Victor Slavescu” Centre for Financial and Monetary Research, viewed 1 September 2017, <<http://jfme.icfm.ro>>.
5. *Convergence Report*, June 2016, European Central Bank, viewed 1 September 2017, <<https://www.ecb.europa.eu/pub/pdf/conrep/cr201606.en.pdf>>.
6. *Economic Bulletin, Issue 5 / 2015*, European Central Bank, viewed 1 September 2017, <<https://www.ecb.europa.eu/pub/pdf/ecbu/eb201505.en.pdf?15498e6ac6298df89d51e863d061ad8c>>.
7. *In depth review for Bulgaria*, 2012, European Economy, Occasional Paper 209, European Commission, viewed 1 September 2017, <[https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/macroeconomic-imbalance-procedure/depth-reviews\\_en](https://ec.europa.eu/info/business-economy-euro/economic-and-fiscal-policy-coordination/eu-economic-governance-monitoring-prevention-correction/macroeconomic-imbalance-procedure/depth-reviews_en)>.
8. *Productivity in Bulgaria, Trends and Options*, June 2015, Document of the World Bank, viewed 1 September 2017, <<http://www.worldbank.org/content/dam/Worldbank/document/eca/Bulgaria/Bulgaria-Productivity-6-26-15-eng-web.pdf>>.
9. *Real convergence in the Euroarea, evidence, theory and policy implications*, 2015, ECB Economic Bulletin, Issue 5, viewed 1 September 2017, <[https://www.ecb.europa.eu/pub/pdf/other/eb201505\\_article01.en.pdf](https://www.ecb.europa.eu/pub/pdf/other/eb201505_article01.en.pdf)>

---

### Contacts:

Iskra Christova-Balkanska, Prof. Dr  
Institute for Economic Research,  
Bulgarian Academy of Science, Sofia  
E-mail: [iskbal@bas.bg](mailto:iskbal@bas.bg)

---