

The Role of Agriculture in the Bulgarian Economy

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Ролята на селското стопанство в българската икономика

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Статията разкрива ролята и мястото на селското стопанство в структурата на българската икономика въз основа на емпиричен икономически анализ, приложен за времеви период, обхващащ последните четири години. Анализът показва, че селското стопанство заема третата позиция по отношение на относителните дялове на икономическите отрасли в брутният вътрешен продукт (БВП) за този период. По-специално, то се нарежда след услугите и индустрията и преди строителството. Независимо от това, селското стопанство нараства най-бързо сред четирите основни икономически сектора в рамките на БВП, което ясно свидетелства за неговия потенциал за растеж, въпреки някои структурни проблеми, в т.ч. и по отношение на организацията на субсидиите за сектора. Въпреки това, данните показват, че през първата половина на 2016 г. селското стопанство нараства под потенциала си, за разлика от сектора на услугите например. От друга страна, в съответствие с тенденцията за преструктуриране доходите в брутната добавена стойност, характерна за икономиката като цяло, през първата половина на 2016 г. компенсациите на наетите в селското стопанство растат по-бързо, в сравнение с другите сектори, докато брутният опериращ излишък на земеделските фирми намаля още по-значимо.

Ключови думи: анализ на брутният вътрешен продукт (БВП), макроикономика, аграрна икономика

Introduction

In recent years, Bulgarian economy grew at an average rate ranking slightly below the pace of the countries in Eastern and Southern Europe and above those of the Euro area in a relatively stable political, fiscal and monetary environment. The aim of this inquiry is to reveal the role of agriculture, a traditional sector in the country, in the national economy as of the last four years. The method used in the study is entirely empirical one, based on statistics and coefficients structured in graphs and tables. After brief overview on the status quo and main tendencies of the national economy, founded on a study of GDP/GVA and additional macroeconomic indicators during the past four years, in the course of the survey, the contribution of the agriculture to the real economic growth and its growth potential is re-

vealed. This is done by examining the agriculture's share in GDP and comparing it with the shares of services, industry and construction. Then the real annual growth rates of the four sectors are tracked, which, tied to the relative shares, give their contributions to the GDP growth. Not only the growth potential but also the participation in the income distribution in the economy refers for the role of the agriculture in the national economy. Therefore, the GVA of agriculture is examined in order to ascertain whether and to what extent the general trend of income redistribution applies also to the agriculture.

Status Quo and Key Tendencies in Bulgarian Economy

During the second quarter (Q2) of 2016 GDP grew by 2.9% year-on-year (yoy) in real terms

as domestic demand was once again the crucial driver of economic growth. Against this background, the domestic demand donated 2.5 percentage points (pp) to the GDP dynamics, while external demand contributed by 0.4 pp. Within the domestic demand, positive contribution registered gross investments as well as household consumption by 1.4 pp and 1.0 pp, respectively.

Regarding the growth of the GDP components, investments rose by 6.6% yoy in real terms, whereas consumption stepped up by 1.3% yoy. In turn, export of goods and services increased by 5.1% in real terms, while import went up by 4.5% yoy. Both the export and import growth rates were below the respective levels in Q2 2015.

On the supply side, in Q2, the most solid contribution to the GDP growth again came from the services sector (2.3 pp), whereas industry (inclusive construction) and agriculture remained flat (0.0 pp).

In the services, as expected, trade and repair of motor vehicles, hotels and restaurants (0.9 pp),

real estate operations (0.6 pp), scientific research (0.3 pp) and creation and dissemination of information (0.3 pp) shore up the growth most intensively. They were followed by the financial and insurance activities (0.2 pp) and culture, sport and entertainment (0.1 pp). These facts reflected what happened in the sector during Q2: increased number of purchases of motor vehicles and real estate due to low interest rates on deposits and loans and against the background of increasing wages and salaries.

Within the industrial production, the contribution of both mining and manufacturing (including production and distribution of electricity, gas and water) as well as construction remained flat (0.0 pp).

In the gross value added (GVA) compensations of employees stepped up by nominally 9.0% yoy in Q2. Against this background, gross operating surplus, an indicator of the production activity of firms, declined by 7.0% yoy (-0.8% yoy in Q1 2016) (see Fig. 3).

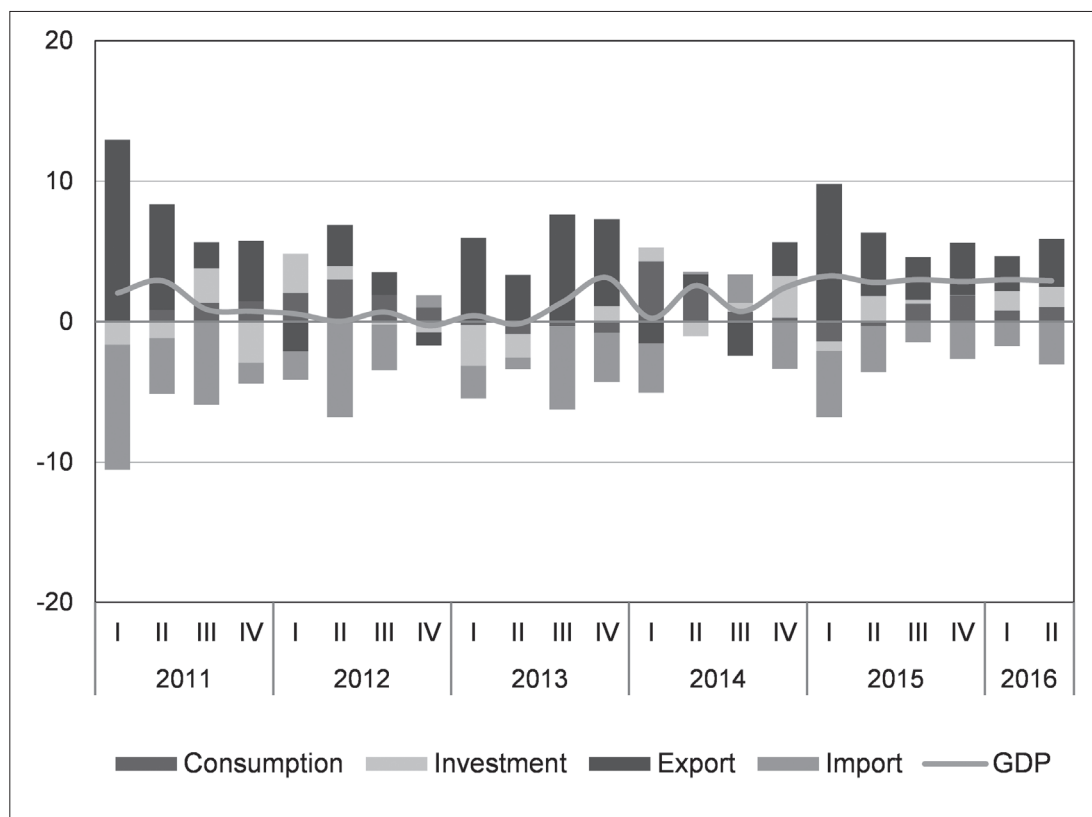


Fig. 1. Contributions to Real GDP Growth on Demand Side (pp)

Source: NSI, own calculations.

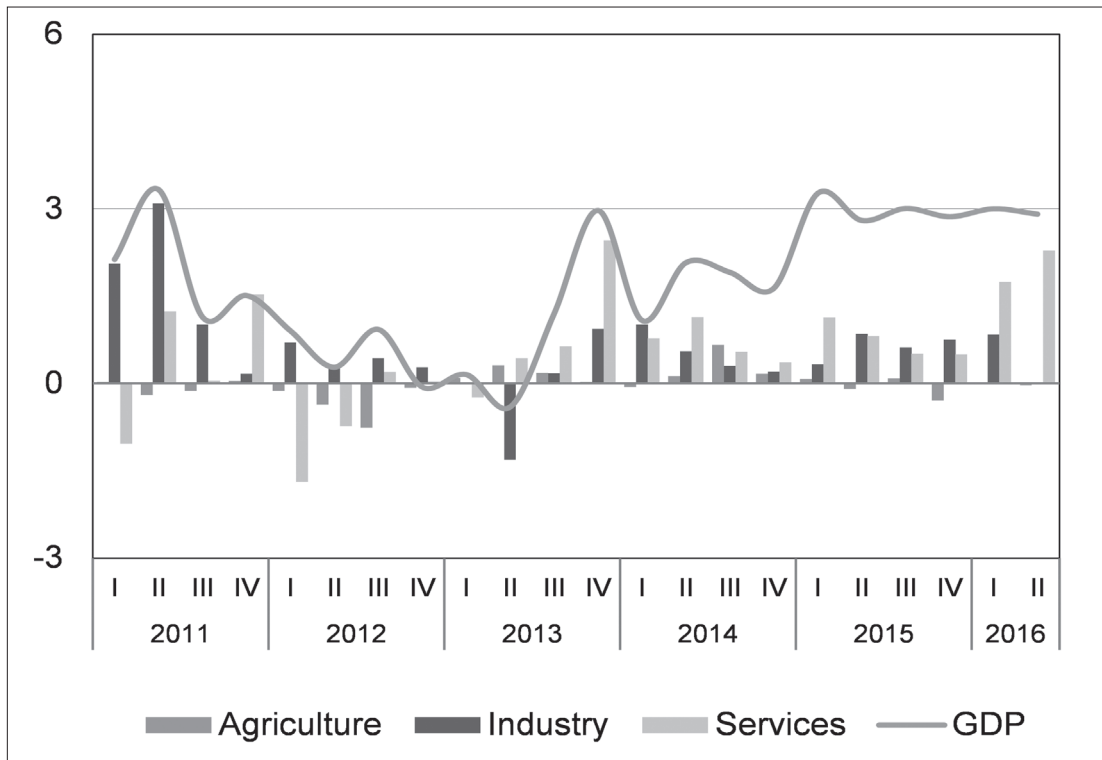


Fig. 2. Contributions to Real GDP Growth on Supply Side (pp)

Source: NSI, own calculations.

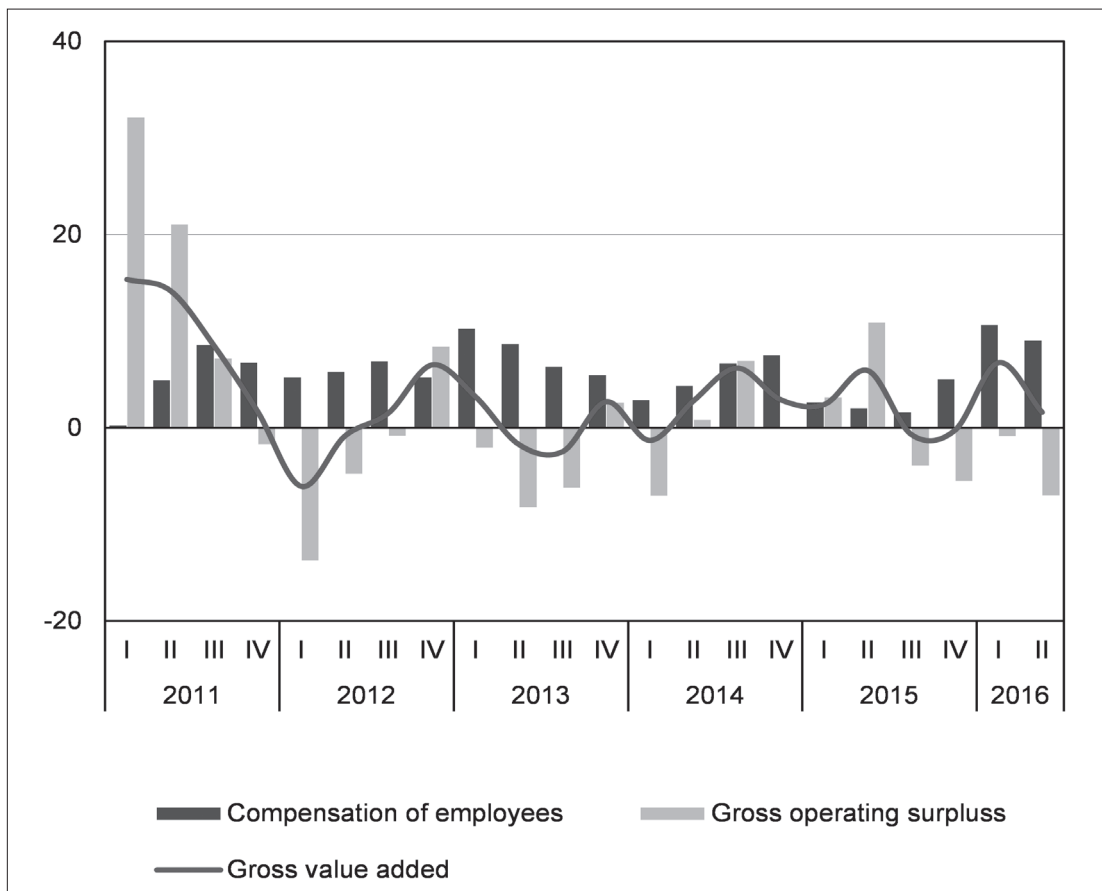


Fig. 3. Income Components of GVA (% yoy in nominal terms)

Source: NSI, own calculations.

During the time slot 2011–2012 the compensation of employees grew on average by 5.4% yoy by quarters, while gross operating surplus increased by 5.9% yoy on average. For the period 2013 – H1 2016, however, the compensation of employees went up by 5.9% yoy, whereas the gross operating surplus declined by an average 16.6% by quarters. This findings display a clear trend of income restructuring in the economy from the companies (and their owners) to the employees.

By the end of July 2016, the gross state budget accumulated a record surplus of BGN 3.3 bn, while in the same period of 2015 a surplus of (only) BGN 789.4 mn was encountered. The total budget revenues for the first seven months of the year amounted to BGN 20.5 bn (8.0% yoy growth), while the total spending (including the contribution to the EU budget) reached BGN 17.3 bn (5.3% decrease). The far more intensive increase in revenues resulted from a 6.9pp contribution of tax revenues, 1.6pp of non-tax revenues and -0.4 pp from grants. The latter were a result of a decreasing absorption of EU funds and programs on an annual basis. Positive inputs to the expenses were made by: social expenses and scholarships (1.9 pp), salaries expenses (0.6 pp), interests (0.2 pp) and subsidies (0.1 pp). On the other hand, capital expenses (-7.8 pp) and current maintenance expenses (-0.2 pp) contributed negatively.

In July 2016, the gross external debt remained approximately at the level of June EUR 34.9 bn decreasing on an annual basis by EUR 762.5 mn. In its structure, the government debt grew by EUR 620 mn yoy, while the external debt of the banks (EUR -400.7 mn yoy), “other sectors” (EUR -251.9 mn yoy) and intercompany loans (EUR -730.4 mn yoy) declined.

In July, the C/A balance was positive at EUR 513.4 mn, compared to a EUR 470.7 mn surplus in July 2015. On an annual basis, the export of goods accelerated again, as it reached 5.5% in July, according to the data of the BNB. On contrary, the import marked a decrease, but at a slightly slower pace of 5.0% yoy. This dynamics led to a constriction of the deficit in the trade balance to EUR 32.8 mn, against the background of

the deficit of EUR 254.2 mn in July 2015. The balance of services for the period was without surprise positive, amounting to EUR 631.5 mn, although it registered a decrease by EUR 41.8 mn yoy. The primary income was traditionally negative at an amount of EUR 156.6 mn (EUR -105.9 mn in July 2015), while the secondary income supported again the current account, contributing by EUR 71.4 mn (EUR 157.5 mn in July 2015).

The foreign direct investments in the country totaled EUR 74.5 mn in July 2016, as they declined by EUR 130.7 mn yoy. For the period January – July the foreign direct investments in the country reached EUR 987.3 mn, whereby leading foreign investor in Bulgaria was the Netherlands, investing EUR 199.1 mn, followed by Luxembourg with EUR 145.1 mn and the Great Britain with EUR 128.1mn.

The Agriculture in the Economy

The dynamics of the contributions of agriculture to the GDP growth is determined by its relative share in the GDP and real growth rates in year-on-year terms.

On Table 1 is evident that the share of agriculture in the gross domestic product varied by quarters in the range of 2.8 to 7.3% during the last four years showing a pronounced seasonality profile. As a rule, second and third quarters are significantly stronger than the first and fourth ones.

Thus, the share of agriculture is comparable to the construction, whose relative share fluctuated in the corridor of 3.1 to 4.7% being significantly narrower than the shares of industry (17.7 – 22.2%) and services (54.4 – 61.6%).

Hence, Bulgarian economy was dominated by the services sector, accounting for an average of 57.8% of the GDP, which is nearly three times larger than the share of industry (average 20.0%), while the industry is about four times bigger than agriculture (average 4.2%) and construction (average 3.9%), which, in turn, are to a greater extent comparable.

In the first two quarters of 2016 agriculture registered lower shares compared with the levels

Table 1. Sectors' Shares in GDP (%)

	2013					2014					2015					2016	
	I	II	III	IV	Y	I	II	III	IV	Y	I	II	III	IV	Y	I	II
<i>Agriculture</i>	3.4	4.5	6.7	3.5	4.6	2.8	4.5	7.2	3.3	4.6	2.6	4.0	7.3	3.2	4.4	2.4	3.6
<i>Industry</i>	22.2	20.3	18.8	17.6	19.6	21.3	21.5	19.2	17.6	19.7	21.6	21.3	18.6	17.6	19.6	21.8	21.2
<i>Construction</i>	3.7	4.5	4.7	3.8	4.2	3.7	3.8	4.7	3.1	3.9	3.5	3.7	4.6	3.9	4.0	3.4	4.0
<i>Services</i>	55.9	56.4	55.6	62.5	57.8	58.6	56.7	55.5	63.6	58.7	57.0	56.7	54.4	61.6	57.5	58.0	57.2
GDP *	85.1	85.7	85.9	87.4	86.1	86.5	86.5	86.6	87.6	86.8	84.7	85.7	84.9	86.3	85.4	85.6	86.0

* The differences in GDP to 100% are due to the contribution of "corrections", which are not given in the table.

Source: NSI, own calculations.

in the same period of 2015, in contrast for example with the services, whose shares in the same comparison increased. Otherwise, industry and construction represent approximately similar shares as in the first two quarters of 2015, although the share of construction grew more strongly in Q2 2016.

Real growth of the four sectors exposes significantly more diverse dynamics than the study of their relative shares in the gross domestic product. Therefore, most telling comparison between the sectors is their average annual growth by quarters. So, against an average GDP growth for the period 2013 – H1 2016 of 2.0% yoy, the agriculture also achieved average annual growth of 2.0%, being faster compared to the industry (average 1.8% yoy), services (average 1.7% yoy) and construction (average -0.7% yoy).

Hence, the growth potential of agriculture becomes clearly apparent. It was able to grow at the fastest among the sectors of the GDP. However, Table 2 makes evident that the sector's growth in the first two quarters of 2016 was weak, far below its potential, unlike services and industry. Otherwise, construction marked significant declines resulting from poor absorption of EU funds for the period.

The role of the agriculture in the Bulgarian economy goes in the foreground more visibly on the basis of the contributions of the sectors to the GDP growth given in Table 3. Although the share of the agriculture in the GDP was relatively small for the period, it contributed by average 0.1 pp to the average annual real growth of the GDP.

This can be seen more prominently amid the average contribution of the industry by 0.3 pp with a nearly fourfold larger share of GDP. Otherwise, the dominance of the services as the strongest GDP driver is clearly confirmed once again: 1.0 pp growth contribution on average.

Along with the share of agriculture in the GDP, its real annual growth potential and its contribution to the growth of the economy also the participation of the sector in the distribution of the income within the gross value added (GVA) indicates for its role in the Bulgarian economy (see Table 3).

The GVA of the agriculture grew in nominal terms by 1.3% yoy on average for the period 2013 – H1 2016, i.e. weaker than the GVA of the economy (2.0% yoy on average). In the GVA of the agriculture the compensation of employees stepped up by nominally 11.9% yoy on average (average 5.9% yoy for the economy), while gross operating surplus, an indicator for the production activity of the agricultural firms, went up by 0.4% yoy, unlike the gross operating surplus for the economy which decreased by 16.6%. Hence, in the last four years not only the compensation of the employees in the agriculture rose nearly twice faster compared with the economy, but also the production activity of the agricultural firms was significantly better than in the economy staying in positive territory, while the gross operating surplus for the economy dropped intensely.

However, in H1 2016 the gross operating surplus of agriculture dropped dramatically, where-

Table 2. Real Growth (% yoy)

	2013					2014					2015					2016				
	I	II	III	IV	Y	I	II	III	IV	Y	I	II	III	IV	Y	I	II			
Agriculture	3.1	7.5	2.2	0.7	3.2	0.4	10.1	2.9	7.5	5.2	2.8	-2.2	1.2	-8.3	-1.4	0.5	-0.8			
Industry	-0.1	-4.7	0.5	5.3	0.0	0.2	0.9	2.7	2.7	1.7	2.2	4.1	3.1	2.6	3.1	5.3	0.1			
Construction	2.0	-2.1	2.9	1.6	1.1	-5.2	-4.1	-0.3	-1.8	-2.6	-3.8	-0.7	0.7	8.8	1.4	-6.6	-0.6			
Services	-0.7	0.5	0.9	3.7	1.3	1.8	3.9	0.0	2.1	1.9	1.9	1.4	0.9	0.8	1.2	3.0	4.1			
GDP	0.4	-0.2	1.4	3.1	1.3	0.2	2.6	0.7	2.4	1.5	3.3	2.8	3.0	2.9	3.0	3.0	2.9			

Source: NSI, own calculations.

Table 3. Contributions to Real GDP Growth by Sectors (pp)

	2013					2014					2015					2016				
	I	II	III	IV	Y	I	II	III	IV	Y	I	II	III	IV	Y	I	II			
Agriculture	0.1	0.3	0.2	0.0	0.1	0.0	0.4	0.2	0.3	0.2	0.1	-0.1	0.1	-0.3	-0.1	0.0	0.0			
Industry	0.0	-1.1	0.1	0.9	0.0	0.0	0.2	0.5	0.5	0.3	0.5	0.9	0.6	0.5	0.6	1.1	0.0			
Construction	0.1	-0.1	0.2	0.1	0.1	-0.2	-0.2	0.0	-0.1	-0.1	-0.1	0.0	0.0	0.3	0.1	-0.2	0.0			
Services	-0.4	0.3	0.5	2.3	0.7	1.0	2.1	0.0	1.3	1.1	1.1	0.8	0.5	0.5	0.7	1.7	2.3			

Source: NSI, own calculations.

Table 4. Growth of Gross Value Added of Agriculture (% yoy nominal terms)

	2013					2014					2015					2016				
	I	II	III	IV	Y	I	II	III	IV	Y	I	II	III	IV	Y	I	II			
Compensation of employees	17.8	16.1	13.5	12.8	14.9	7.8	9.4	11.9	12.6	10.5	-10.6	3.6	24.6	5.0	6.1	12.1	18.3			
Gross operating surplus	49.0	21.3	-9.9	21.4	9.3	-36.4	-11.4	15.2	13.2	0.5	23.3	2.1	-8.2	-20.9	-5.9	-32.7	-20.3			
GVA	42.5	13.1	-18.7	12.5	0.8	-20.9	2.3	12.2	-3.2	1.4	-2.5	-6.3	2.9	-1.2	-0.8	-3.0	-11.9			

Source: NSI, own calculations.

as the compensation of employees soared, both in line with the tendency typical for the economy as a whole, but much more stronger.

Conclusions

The inquiry revealed that regarding its share in the GDP agriculture takes the third place after the services and industry and before the construction in the period 2013 – H1 2016. Furthermore, it was shown that agriculture registered the strongest growth potential among the other

sectors in this period. However, its growth potential was not used in H1 2016, when the sector operated below potential. More visibly the role of the agriculture in Bulgarian economy becomes evident on the basis of its contribution to the average GDP growth. Although its share in the GDP was relatively small, it contributed by average 0.1 pp to the average annual real growth of 2.0%, while industry contributed by average 0.3 pp with a nearly fourfold larger share of GDP. In line with the general tendency of income restructuring within the gross value added, typi-

cal for the economy as a whole, in the last four years not only the compensation of the employees in the agriculture rose nearly twice faster compared to the economy, but also the production activity of the agricultural firms was significantly more efficient than the economy, remaining in positive territory, while gross operating surplus for the economy narrowed significantly. Nevertheless, in H1 2016 also the gross operating surplus of agriculture dropped, whereas the compensation of employees soared, both much stronger than economy.

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The Role of the Agriculture in the Bulgarian Economy

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(Summary)

The article reveals the role and place of agriculture in the structure of Bulgarian economy on the basis of empirical economic analysis applied for the time slot covering the past four years. The analysis states that the agriculture occupied the third position regarding the relative shares of four main economic sectors in the gross domestic product (GDP) over this period. In particular, it ranked after services and industry being at the same time before construction. Nevertheless, the agriculture grew the fastest among the four main economic branches within the GDP, which clearly indicates for its growth potential, despite some structural problems, inclusively with regard to the subsidies' for the sector. In the first half (H1) of 2016, data show, however, that agriculture operated below its potential in contrast to the services sector. On the other hand, in line with the general tendency of income restructuring within the gross value added (GVA), typical for the economy as a whole in H1 2016, compensations of employees in the agriculture rose stronger compared to the economy, while gross operating surplus of agricultural companies declined even faster.

Key words: GDP analysis, macro economy, agricultural economics