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NINA KOTEVA
Institute of Agricultural Economics
Sofia

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TRENDS OF FARMS RESTRUCTURING IN BULGARIA

Abstract

The question for the restructuring is extremely comprehensive, as an important part of it is the organization-economic restructuring of agriculture. The outgoing farm changes are very significant. The implementation of European policy, destined for higher economic, technologic and market level of agriculture than ours, generates some positive trends, but also a lot of problems. Without answer remains the question about the reflection of structural changes on farms' economic state.

Key words: farm, restructuring, Bulgarian farms, economic potential, farms specialization.

Introduction

The question for the restructuring is extremely comprehensive, as an important part of it is the organization-economic restructuring of agriculture. The outgoing farm changes are very significant. The implementation of European policy, destined for higher economic, technologic and market level of agriculture than ours, generates some positive trends, but also a lot of problems. Without answer remains the question about the reflection of structural changes on farms' economic state.

The research aim is to make analysis and assessment of outgoing organization-economic restructuring in agriculture and to underline main trends in different farm types' development.

The following scientific methods have been used in the research: comparative analysis, method of statistic groups, expert assessment, etc.

Changes of organization-economic structure of agriculture

Number and average farm size

A durable trend of diminution of farms' number almost by half – from 654.8 thousand to 371.1 thousand – has been outlined for the period of 2003-2010 (Table 1). The reduction processes in small farms (up to 3 ha) are the most dynamic – the diminution is almost twice. In a smaller degree there is a diminution in the group of farms from 2 to 5 ha – approximately 18%. The ongoing structural changes are characterized by positive trend of double increase in the number of medium-sized farms (from 10 to 50 ha) and approximately 36% increase in relatively big farms with UAA size over 100 ha.

Table 1

Dynamics of farms number and size

Farms, thousand	2003	2005	2007	2010	Change 2010/2003, %
	654.8	520.5	481.9	371.1	-43.3
0 – < 2 ha	591.7	456.6	417.4	308.8	-47.8
2 – < 5 ha	41.9	40.5	39.2	30.4	-17.5
5 – < 10 ha	9.7	10.4	10.1	10.8	+11.3
10 – < 20 ha	4.0	4.8	5.5		
20 – < 30 ha	1.3	1.6	1.9		
30 – < 50 ha	1.2	1.3	1.6	12.9	+98.4
50 – < 100 ha	1.2	1.5	2.0	2.9	+141.6
>=100 ha	3.9	3.8	4.2	5.3	+35.9
UAA, thousand ha	**2 904.5**	**2 729.4**	**3 050.7**	**3 620.9**	**+24.6**
0 – < 2 ha	312.8	241.4	191.1	144.3	-53.9
2 – < 5 ha	121.7	116.9	115.5	90.6	-15.6
5 – < 10 ha	64.2	66.9	66.6	73.0	+13.7
10 – < 20 ha	52.7	60.5	73.0		
20 – < 30 ha	29.8	36.1	45.5	279.7	
30 – < 50 ha	44.4	49.4	61.4		+120.4
50 – < 100 ha	83.1	101.1	139.5	203.0	+144.6
>=100 ha	2 195.8	2 057.1	2 358.2	2 830.3	+28.9
Average size, ha	**4.4**	**5.2**	**6.2**	**9.8**	**+122.7**

Source: MAF, "Agro-statistics", Census of farms in Bulgaria in 2003 and 2010 and own calculations.

Ongoing restructuring does not bring essential positive changes of organization-economic structure. Our agriculture remains predominantly small-scale with dominant part of small farms.

Data analysis (Table 1) outlines stable trend to increase the total UAA size after the EU accession, as a result of the activation of the land demand, accumulation of lands with low fertility and presence of stimuli for farms enlargement, aiming at receiving more subsidies per unit area (national and international) – from 3 050.7 thousand ha in 2007 to 3 620.9 thousand ha in 2010. As a result of ongoing structural changes, the average farm size has increased from 4.4 ha in 2003 to 9.8 ha in 2010 (Table 1). On the basis of analysis results, we can conclude that structural changes led to farms consolidation in the country, accelerated mainly by direct payments impact.

Table 2

Dynamics of average farm size

Farms size	Average farm size of the group, ha	
	2003	2010
0 – < 2 ha	0.5	0.5
2 – < 5 ha	2.9	2.9
5 – < 10 ha	6.6	6.8
10 – < 50 ha	19.5	21.7
50 – < 100 ha	69.2	70.0
>=100 ha	563.0	534.0

Source: MAF, "Agro-statistics", Census of farms in Bulgaria in 2003 and 2010 and own calculations.

The comparative analysis shows a big difference in average sizes by farm groups. For 2010 the average size of the smallest farms is barely 0.5 ha, small--scale – 2.9 ha, and the biggest farms – 534 ha.

Juridical status of farms

Along with the family farms, there are other confirmed forms of agricultural business – production cooperatives, sole traders, trade companies. For the analyzed period of 2003-2010, the structural changes are related to diminution farms number for all organization forms, excluding trade companies. The changes occur with different intensity (Table 3):

– the most dynamic are processes in the farm group of physical persons – reduction of their number due to termination of activity in the smallest farms. Nevertheless, the farms of physical persons keep their relative share (98%) using 33.8% of UAA in the country;
– for the cooperatives there is also a trend of diminution of number. After the EU accession, the introduction of direct payments has increased the prices of land and lease. In the context of the lowefficiency of production, a part of cooperatives could not respond to expectations of landowners for increase in the rent. The reasons for the stopping of some cooperatives' activity is due to the taking of land from owners for sale or for submitting to trade companies

for higher rent. The cooperatives' number diminishes from 1 973 in 2003 to 941 in 2010, which is related to diminution of the relative UAA part from 30.6% to 17.8%;
– considerable increase in trade companies number; in 2010 they already occupy 1% in organization-economic structure of the country, but they use about 32% of the UAA;
– in the group of sole traders' farms the change is insignificant, oriented to their number reduction, but they keep their share of 15% of the UAA.

Table 3

Dynamics of farms number and UAA size, according to their juridical status

Juridical status	Farms number		UAA (ha)	
	2003	2010	2003	2010
Physical persons	648 274	350 041	879 678	1 201 280
Sole traders	2 870	2 134	340 861	544 388
Cooperatives	1 973	941	1 169 309	643 555
Trade companies	1 331	3 639	469 197	1 151 451
Associations and others	360	319	45 434	76 292

Source: MAF, "Agro-statistics", Census of farms in Bulgaria in 2003 and 2010.

Results from the analysis of farms, according to their juridical status, show that the ongoing processes do not lead to essential changes of organization--economic structure of agriculture. The farms of physical persons prevail in our agriculture, and their relative share remains dominant – over 98% and the share of farms of legal entities is barely 2%.

The farms consolidation is characteristic for almost all organization forms of agricultural business (Fig. 1):
– The increase in the average size of farms of physical persons is insignificant, due to their low economic potential. For the period of 2003-2010, their average size has increased from 1.3 ha to 3.4 ha.
– The farms of legal entities are large economic structures. They develop in economic range, comparable to the European one; they have potential for absorption of the European and national subsidies and opportunities for more considerable enlargement of their size. The production cooperatives, having average size of 683.9 ha, remain insured of optimal land resource, followed by the trade companies – 316.4 ha, and sole traders – 255.1 ha.

The analysis of results shows that the differentiation between the farm sizes, according to their juridical status, is in process of widening.

The conclusion, which could be made, is that the bipolar model of organization-economic structure of agriculture sharpens and deepens the divergence of farm size, according to their juridical status.

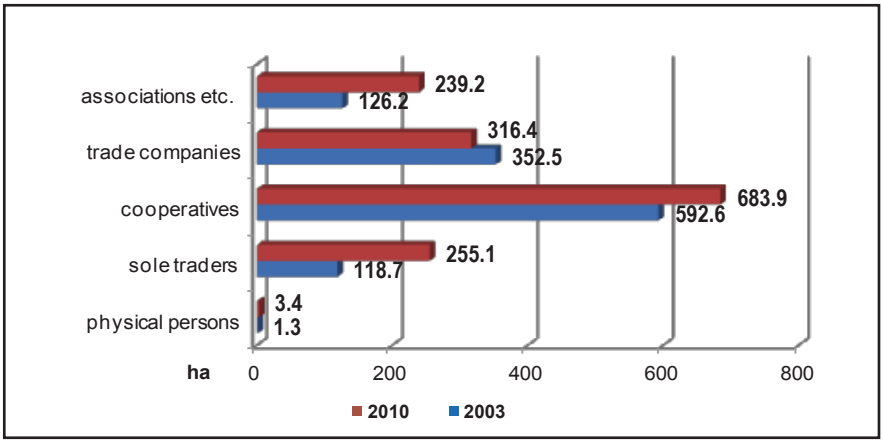

Fig 1. Dynamics of farms average size, according to their juridical status.
Source: MAF, "Agro-statistics", Census of farms in Bulgaria in 2003 and 2010.

Level of specialization, concentration and market orientation of farms

The analysis, according to specialization, shows clear trend of diminution of farms number in all groups, as a result of the general trend of reduction of farm numbers, but these processes occur with different intensity. The comparative analysis indicates that the processes of diminution are more intensive for the farms with mixed production, in comparison to the specialized farms. The highest diminution is noted for the mixed livestock farms, about 84%, followed by the mixed crop-growing farms – respectively by 80%. At this background the diminution of crop-livestock farms is considerably smaller – by 31% (Fig. 2).

As a result of ongoing processes, in 2010 the specialized farms having the biggest number are the farms breeding ruminant animals – 88 630, followed by field crop farms – 63 112.

The biggest diminution is shown by the livestock farms, respectively breeding pigs and poultry – 47%, and ruminants – 25%.

For the specialized crop-growing farms the diminution is considerably lower – for example the farms growing field crops – 9%, the farms growing vegetables – 16%. The change of the number of farms, growing perennial crops, is minimal – under 3%, which could be explained by the long-lasting character of investments and the slow process of change of specialization.

As a result of ongoing processes, there is a positive trend of increasing the level of farms' specialization. In the analyzed period, the share of specialized farms has increased from 44.4% in 2003 to over 62% in 2010.

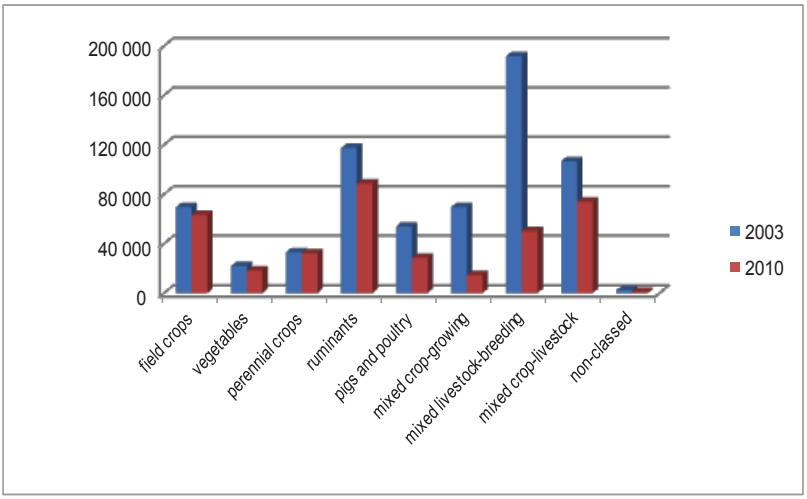

Fig. 2. Dynamics of farms number, according to their specialization.
Source: MAF, "Agro-statistics", Census of farms in Bulgaria in 2003 and 2010.

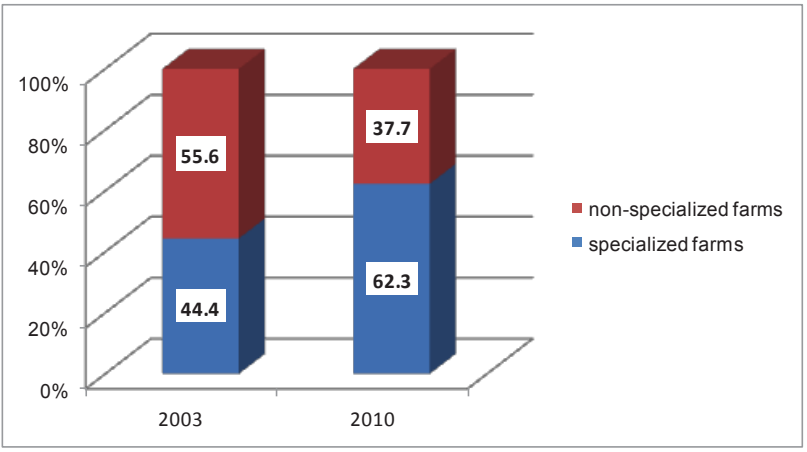

Fig. 3. Farms specialization.
Source: MAF, "Agro-statistics", Census of farms in Bulgaria in 2003 and 2010.

The analysis of the production concentration is conducted by main groups of crops and animals. The comparative analysis shows that the average areas of extensive crops considerably outmatch areas with intensive production. The sunflower occupies the biggest average area per farm. This trend remains throughout the analyzed period. The second place per production concentration is for the wheat. The average size of the field vegetables, grown in the farms, is the lowest.

The production concentration is characteristic for all grown crops, but occurs with different intensity. The most dynamic are the concentration processes for vegetables, maize for grain and wheat. The lowest rate of change is noted for the average tobacco areas.

Table 4

Average size of grown crops in the farms, decars (0,1 ha)

Main crops	2003	2010	Change 2010/2003, %
Common wheat	83.2	230.4	277
Barley	54.3	127.7	235
Maize for grain	13.2	46.1	349
Sunflower	222.6	434.1	195
Tobacco	5.6	7.4	132
Field vegetables	1.8	6.4	355
Perennial crops	3.9	8.4	215

Source: MAF, "Agro-statistics", Census of farms in Bulgaria in 2003 and 2010.

The analysis of the average number of bred animals in the farms shows that in all groups small production predominates. In 2003, the average number of bovines in a farm is 3, sheep – 7, pigs – 5, etc.

For the analyzed period a growth rate has been reported for the average number of bovines, sheep and poultry in farms. Data show that in 2010 the average number of cattle has increased to 6, sheep – to 15 and poultry – to 94.

Despite the outlined trend of production concentration, at the end of the analyzed period the small average number of animals remains in the farms.

The comparative analysis in both sub-sectors shows that the concentration processes in the crop-growing are more dynamic than in livestock-breeding.

Table 5

Average number of bred animals in a farm

Animals groups	2003	2010	Change 2010/2003, %
Cattle	3	6	187
Sheep	7	15	226
Goats	3	5	144
Pigs	5	8	160
Poultry	44	94	214

Source: MAF, "Agro-statistics", Census of farms in Bulgaria in 2003 and 2010.

Analysis of the economic potential of farms in done according to the Economic size units (ESU). Over 76% is the share of small, predominantly subsistence farms, having economic size up to 1 ESU. Second, as regards, their importance, are semi-subsistence farms with economic potential of 1-4 ESU. The market-oriented farms having over 4 ESU are under 3%.

The results show that our agriculture's image is defined by small farms and among this group the predominantly subsistence small farms have economic and social significance.

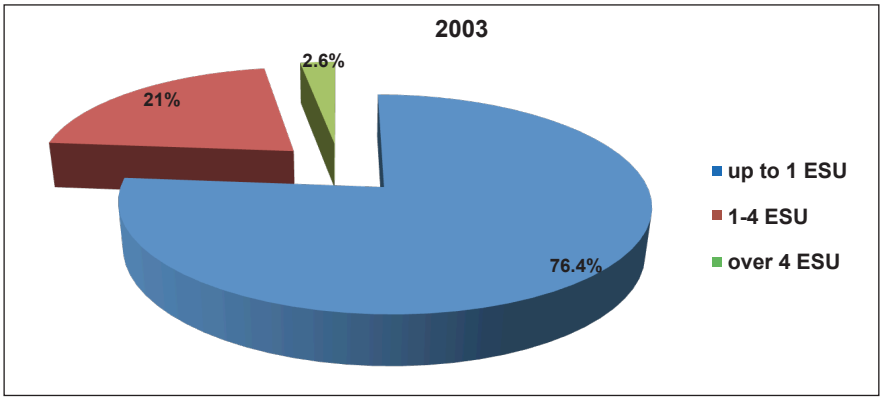

Fig. 4. Economic size of farms.

Source: MAF, "Agro-statistics", Census of farms in Bulgaria in 2003 and 2010.

The predominant share of farms of low economic potential forms also low average economic size of 1.7 ESU.

Table 6

Average economic size per farms' specialization

Farms specialization	2003	2005
Field crops	5.9	5.5
Vegetables	3.7	4.0
Perennial crops	1.7	2.5
Ruminants	0.8	1.0
Pigs and poultry	2.1	1.7
Mixed production	0.9	0.7
Average	1.6	1.7

Source: MAF, "Agro-statistics", Census of farms in Bulgaria in 2003 and 2010.

Field crop farms have the largest economic size – approximately 6 ESU. Despite the small size of vegetable farms, the intensive production determines the relatively high economic potential – about 4 ESU. The remaining types of farms are characterized by considerably lower economic potential.

The analysis of farms per economic size in 2010 has been made on the basis of the indicator of "standard production volume" (SPV), which is the standard value of the gross output (EU Regulation No. 1242/2008) (Fig. 5).

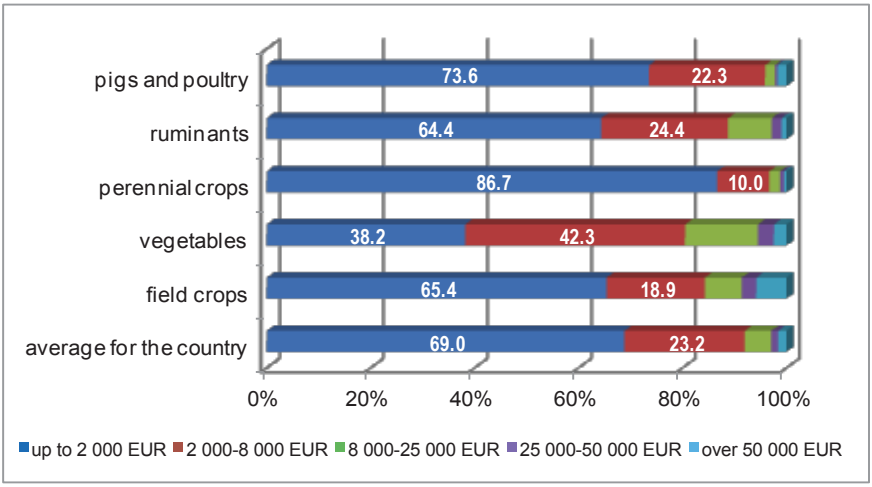

Fig. 5. Distribution of specialized farms, per economic size, 2010.
Source: MAF, "Agro-statistics", Census of farms in Bulgaria in 2003 and 2010.

The analysis of data shows that the predominant share of farms having extremely low economic potential remains – 69% of all farms have standard production volume up to 2 000 EUR (1st class). This share varies, depending on the farm specialization.

The farms with perennial crops have the highest relative share for the 1st class – about 87%. At intensive production method, the low economic potential shows that the predominant number of farms have very small sizes and deteriorated state of plantations.

The smallest relative share in this class is for vegetable growing farms – 38.2%. These farms grow highly profitable crops and despite their small sizes, they manage to realize higher standard amount – from 2 000 to 8 000 EUR, therefore 42.3% of them fall into the next class, according the economic size.

According to the expectations, the biggest share of the farms with high economic potential, over 50 thousand EUR, are in the sector "field crops" – about 6%. These one followed by the farms with vegetables – 2.4% and pigs and poultry – 1.7%. In this group the other specialized farms are with relative share under 1%.

The farm structure forms the economic size, per farm types, depending on their specialization. The average economic potential of farms in Bulgaria is 6 640 EUR of standard production volume (Fig. 6). Three groups of farms realize higher standard production volume, in comparison to the average for the country – farms for field crops, vegetables, and pigs and poultry.

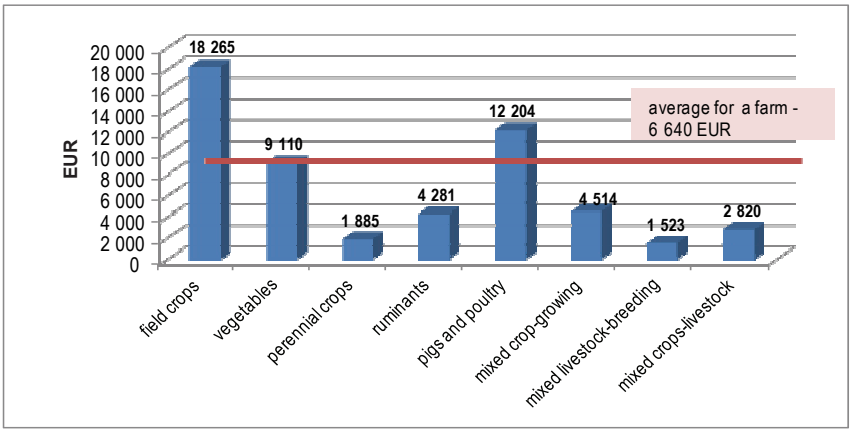

Fig. 6. Average economic size, per farm types, 2010.

Source: MAF, "Agro-statistics", Census of farms in Bulgaria in 2003 and 2010.

The highest economic potential is noted for the field crop farms – 18 265 EUR of standard production volume, due to the fact that the biggest farms, growing cereals and sunflower, are in this group.

The next place, with average economic size of 12 203 EUR, is occupied by farms breeding pigs and poultry, due to the big total size of the standard production volume, realized by small number of farms. This sector is characterised by strong differentiation of farms, by economic size – under 1% (0.7%) of farms have very high economic potential (with standard production volume over 250 thousand EUR), but they realize 75% of the total standard production in the sector. On the other hand are the small farms with SPV up to 2 000 EUR, which are 74%, but realize only 6% of the total SPV in the sector.

Lower economic potential falls to farms with perennial crops, ruminants and mixed production.

From the specialized farms, the farms with perennial crops have the lowest economic potential – 1 885 EUR of average SPV, which is due to the predominant number of small farms and to the little number of big economic units – 11 with SPV over 250 thousands.

From the non-specialized farms, the mixed livestock farms have the lowest economic size – 1 523 EUR of SPV, which is the lowest of all farms types in the country. The reason is the same – high share of farms of the lowest economic class (up to 2 000 EUR) and symbolic number of the largest farms with over 250 000 EUR of SPV.

Unfortunately, the different methodological approaches and indicator used for the definition of farms' economic potential in 2003 and 2010 do not give the opportunity for more deep comparisons and outlining of trends. The conclusion is that the share of farms with low economic potential predominates in the country.

The analysis of diversification to other non-agricultural activities outlines the small number and the low relative share of farms exercising other activities, bringing supplementary incomes within the economic year.

In 2003, about 29 thousand farms, having relative share of 4.4% of all farms in the country (Table 7), have complementary income sources from non-agricultural activity. Main sources of employment are processing of agricultural products, fish production and mechanized services.

In the analyzed period, there is a clear trend to considerable decrease in the humles of farms, occupied with non-agricultural activity. In 2010, the number of farms, which diversified their production, is considerably lower – only 3 610 or 1% only (Table 7) of all farms. The reasons should be searched not only in the total decrease of farms number, but also in the lack of stimuli, insufficient experience, ineffective organization and deficiency of complementary incomes. All these reasons lead to a refusal of farms to exercise these activities. In the EU CAP conditions, the support under RDP measures (mainly under Axis 3 – M 311 "Diversification to non-agricultural activities", M 312 "Support for micro-enterprises creation and development", M 313 "Encouragement of tourist activities" etc.), oriented at stimulation of the incorporation of non-agricultural activities in the farms, did not have the expected positive effect.

Table 7

Farms distribution, according to the performed non-agricultural activities in the farm

Activities	Farms number	
	2003	2010
Mechanized services	9 684	2 645
Agricultural products processing	13 665	307
Wood processing	115	100
Rural tourism	338	145
Crafts	290	45
Fishery and aquaculture	1 064	108
Renewable energy production	66	5
Other non-agricultural activities	3 647	255
Total	**28 869**	**3 610**
Relative share of all farms in the country	**4.4%**	**1.0%**

Source: MAF, "Agro-statistics", Census of farms in Bulgaria in 2003 and 2010.

The conclusion is that farms in Bulgaria are poorly diversified to other non-agricultural activities and the diversification level diminution continues, which creates a risk of incomes instability.

Analysis of farms' market orientation in 2005 shows that the semi-subsistence farms share is predominant – about 69%. In this group the variety is

big – there are small natural farms, little and larger farms, which use more than 50% of their production for own consumption. Respectively, the share of farms realizing more than their half production on the market is 31%; 11.4% of them sale all their production (Table 8).

The comparative analysis shows that for the period, the market organization of farms has improved. The number of farms, realizing bigger part of their production on the market has increased. In 2010, about 190 thousand farms or more than a half realize the predominant part of their production on the market. Along with the examined changes in organization and economic structure of agriculture – diminution of small and little farms, increase of the specialization, production concentration, contribution for the market orientation has also the received support under several measures and mechanisms of the EU CAP conditions (M 141 "Support of semi-subsistence farms in process of restructuring", M 121 "Farms modernization", direct payments, training, consulting services, national support, etc.).

Table 8

Farms distribution, according to agricultural production orientation

Year	Farms with more than 50% of agricultural production for own consumption		Farms with less than 50% of agricultural production for own consumption	
	Number	Relative share, %	Number	Relative share, %
2005	367 986	68.8	166 627	31.2
2010	177 253	48.6	187 857	51.4

Source: MAF, "Agro-statistics", Census of farms in Bulgaria in 2003 and 2010, Farms structure in economic year 2004/2005.

The question of market orientation is related to the problem of production realization channels. At the prevailing small and fragmented production, the lack of producers' organizations, the problems of the producers with the access to the market remain, in which makes the producers strongly dependent on the wholesalers, resellers and unfair competition. For the analyzed period, the number of farms, in which direct sales prevail for the half of the total sales' amount, remains almost unchanged. For comparison, the data are the following: in 2005 these farms number 26 154, in 2010 – 26 418.

For the improvement of food chains and the stimulation of the short food chains building the following are necessary: market structures development and creation of normal market relations in agriculture; completion of market structures (exchange places, marts, stocks and refrigeration bases) on regional principle; stimulation of quality production; elimination of the competition from the part of informal sector and illegal import; associations of farmers.

Changes of the farms economic effectiveness level

Incomes

There are serious changes of the average net income of farms in the country. Data show that for all the period after the EU accession of Bulgaria, i.e. 2007-2012, the average net income per farm prevails considerably the reached amount in 2006, which is due to the obtained European subsidies. In the first year after the accession subsidies increased five times, compared to 2006 and they formed a big part of the net farms income. While in 2006 the subsidies share is only 19% of the net income, in the next years this share increases considerably: respectively for 2007 – 45%; 2008 – 70%; 2009 – 129%, because the net income without subsidies is a negative value; 2010 – 75%; 2011 – 68% and 2012 – 78% (Fig. 7). Data show convincingly that subsidies play a significant role in the stabilization and increase of agricultural producers' income.

On the other hand, 2007-2012 fluctuations of the average net income amount have been reported for the farms without clear trend. For this period the lowest income is reported in 2009 – 10.3 thousand BGN, the highest is in 2010 – 16.3 thousand BGN.

The faster increase rate of the costs (intermediate consumption, amortization, expenses for land, labour and capital) compared to the gross production, lead to a decrease in the net income without subsidies. In comparison to 2006, after the accession the received net income without subsidies is slightly higher only for 2007 and 2011, in the other years it is lower and in 2009 is has even a negative value.

Results of the analysis of net income with and without subsidies show that subsidies do not lead to efficiency increase, they only compensate the higher production costs.

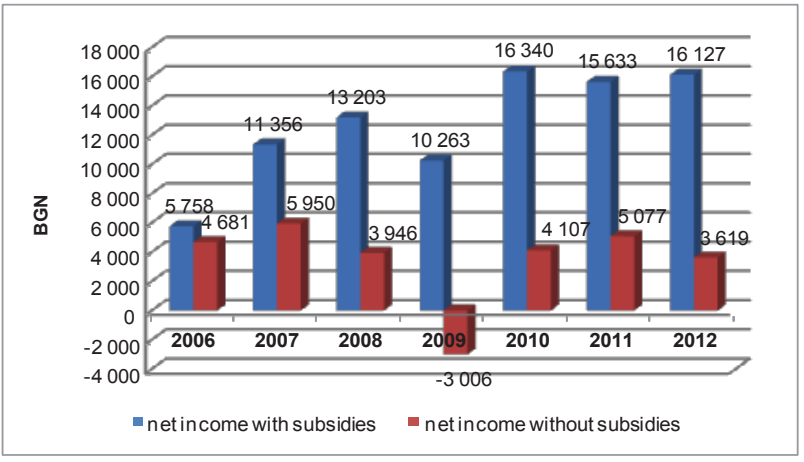

Fig. 7. Farm net income.

Source: Agrostatistics "System for agricultural and accounting information – FADN".

The analysis of farms specialization shows that in 2006 the highest net income was noted by farms with perennial crops – 13 thousand BGN, followed by vegetable farms – over 9 thousand BGN, the rest of farms note income slightly under the average for the country – 5.7 thousand BGN.

After the EU accession, the image has changed radically – only the farms with field crops have higher profitability than the average for the country (Fig. 8). The most dynamic are changes of the net income of these farms – there is a big increase. While in 2006 the net income was under the average for the country, after 2010 it significantly exceeds the income received by other farms. The total average income of farms in the country follows the net income of field crop farms, due to its significance for the formation of the first one.

Farms with perennial crops have the lowest profitability (Fig. 8). In the period 2008-2010, there is a drop of incomes, reaching almost zero. Despite this in 2011 the profitability is higher, in the next year there is again a decrease. The extremely low results show that the production is accompanied by a lot of problems – bad state of plants (high share of neglected and amortized plants), low share of new-planted permanent crops. This defines the low productivity and profitability, non-corresponding to the intensive crops production.

Farms with vegetables, pigs and poultry were characterized by fluctuations of the income level.

In farms with ruminant animals there is a trend of slight increase in the net income (Fig. 9).

For the more profound analysis, accounting for the impact of the received support, the net income has been indicated with and without subsidies.

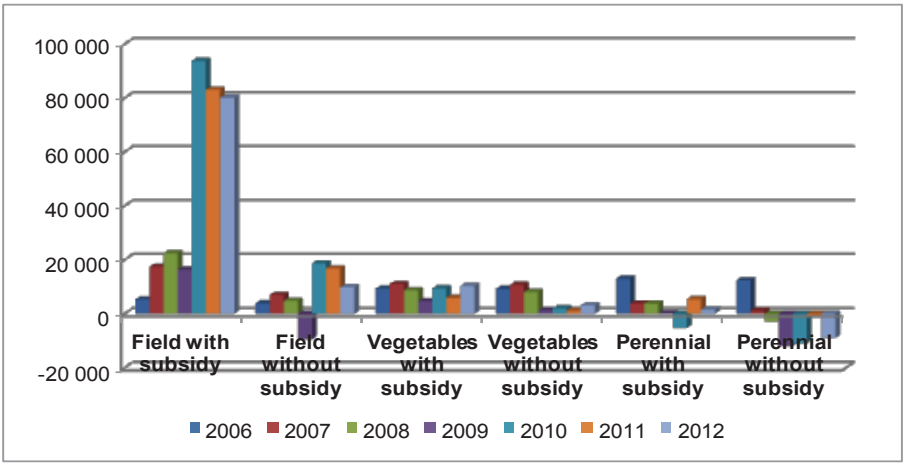

Fig. 8. Net income of crop-growing farms with and without subsidies.

Source: Agrostatistics "System for agricultural and accounting information – FADN" and own calculations.

Data analysis shows that for all crop-growing farms the received subsidies support the formation of net incomes, especially after 2010, but with different intensity. Because of the better land provision, subsidies provide the most significant contribution to the realization of high incomes for field crop farms. Even after 2009 the support is higher than the received net income, without subsidies.

For farms with intensive crops, the received incomes without subsidies in the last four years are lower than in the beginning of the analyzed period. For the farms growing vegetables the subsidies cause a slight income increase. In farms with perennial crops subsidies cover the production losses.

Due to the fluctuations of net income levels for the farms with subsidies it could not be indicated which farms are more profitable – the farms breeding ruminants or the ones with pigs and poultry. But it could be affirmed that in the period of 2006-2008, among the farms without subsidies, the farms breeding ruminants have realized higher net income and in the next period – the farms breeding pigs and poultry. The comparative analysis of livestock farms shows that subsidies have bigger significance for the farms with ruminants.

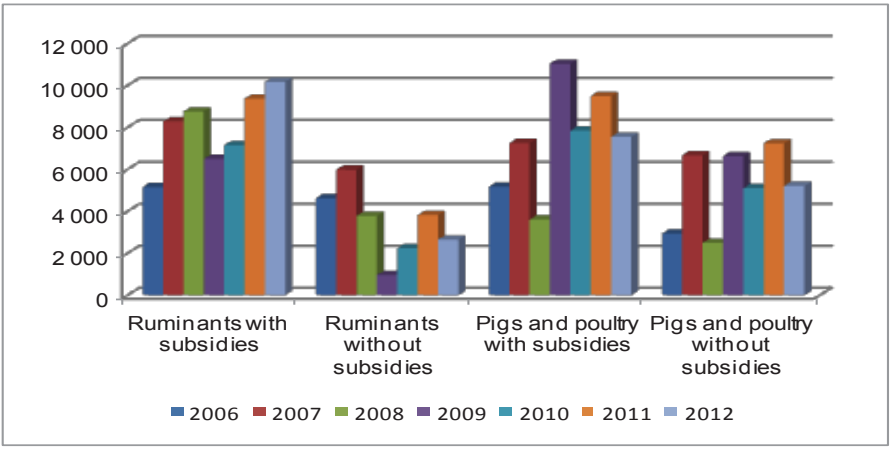

Fig. 9. Net income of livestock farms with and without subsidies.

Source: Agrostatistics "System for agricultural and accounting information – FADN" and own calculations.

The concrete contribution of subsidies to the net income, according the farm specialization, is indicated in Table 9. Before the EU accession of Bulgaria the highest subsidies share belonged to farms with pigs and poultry – 43%, even higher than the farms with field crops. The situation has changed radically under the EU CAP – their subsidy is the lowest, because of the small size of UAA.

Table 9

Relative share of subsidies in the net income, per farms specialization, %

Year	Field crops	Vegetables	Perennial crops	Ruminants	Pigs and poultry
2006	27	1	5	10	43
2007	60	3	69	28	8
2008	78	7.3	178	57	31
2009	158	73	55 times	78	40
2010	80	79	9 times	69	35
2011	80	82	123	59	22
2012	88	70	7 times	74	31

Source: Agrostatistics "System for agricultural and accounting information – FADN" and own calculations.

The comparative analysis shows that, in the analyzed period, the most important support of farmers' incomes is in 2009, when the outcomes were the lowest. For the perennial crop farms the subsidies even cover the negative net income.

For all the period, the most serious support was given to field crop farms, as the relative share of subsidies of the net income is about and over 80%.

The much higher relative share of subsidies in the net income of vegetable-growing farms after 2009, against the previous years, is due the fact that the sample included farms having considerably bigger size of UAA.

For farms with perennial crops, the received subsidy covers the realized losses, therefore the negative result diminishes or in the better case, there is a minimal net income, close to zero. The explanation is that subsidies exceed much the realized net income and they are not part of it. The analysis shows that subsidies nelped to maintain a low efficiency and losing production, without being able to solve the problems of the sector.

Labour productivity

The analysis of performed average productivity per farm shows a trend to a sensitive increase. Exception is 2009 due to the low economic indicators.

In 2006, the productivity is 6 279 BGN/AWU; in 2012 the level of this indicator is already 17 209 BGN/AWU. The farms productiveness increase is due to the net added value increase, while the quantity of labour input has not changed – about 2 AWU. The net added value for the analyzed period increased from 12.8 thousand BGN in 2006 to 19.7 thousand BGN in 2007 and reached 35 thousand BGN in 2012. Principal factor for the net added value increase is the increase of the subsidies for the examined period. The productivity increase follows the growth of the net added value, as the increase of these indicators in 2012 compared to 2006 is 2.7 times, compared to 2007 – 1.8 times (Fig. 10).

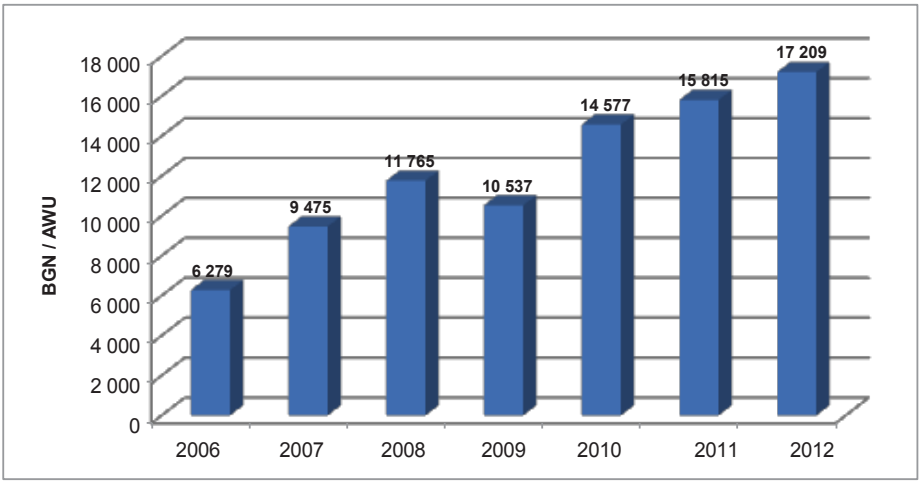

Fig. 10. Average farm productivity.

Source: Agrostatistics "System for agricultural and accounting information – FADN".

The comparative analysis shows that in 2006 there are no big differences between the performed productivity, according to the farms specialization: the values are approximately the same as the average for the country. The perennial crop farms and these breeding pigs and poultry have reached higher productivity, compared to field crop farms. The lowest productiveness is noted farms with ruminants.

In the next years changes occur in the productivity levels, of farms by specialization (Fig. 11). After 2007 the productiveness of field crop farms increases at fast pace and this difference appears many times after 2010 in result of the advantages of large-scale production. For the other farms the changes of the productivity are less significant and show fluctuations. Due to the indicated changes after 2007 only the field crop farms have higher productivity than the average for the country, the others have considerably lower. These results show that the trend of average productiveness increase is due predominantly to the field crop farms.

The relative analysis shows that despite the outlined trend of smooth increase of the productivity in farms with ruminants, it remains the lowest.

Because of fluctuations in productivity levels none other group of specialized farms – vegetables, perennial crops, pigs and poultry has a clear advantage. Nevertheless, the achieved results in the last three years of vegetable-growing farms are relatively higher than in the other two groups.

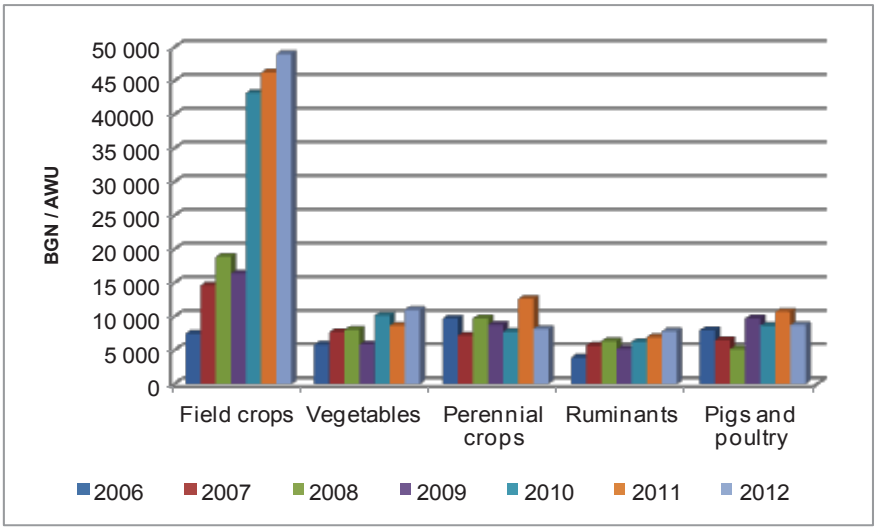

Fig. 11. Labour productivity per farm specialization.

Source: Agrostatistics "System for agricultural and accounting information – FADN".

Production profitability

The comparative analysis shows that for all the period after 2007 the profitability norm with included subsidies is higher than the reached level of 2006, but shows serious fluctuations. The highest profitability norm has been reached in 2007 – 30.3% and despite the increasing amount of subsidies, this indicator's level has not been reached in the next years (Fig. 12). Reasons should be searched in the fluctuations of the net income and the persisting trend of increase in production costs in farms.

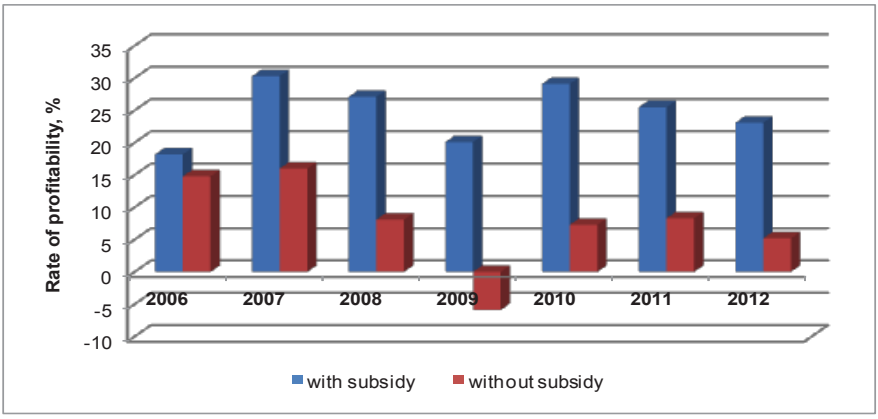

Fig. 12. Reached profitability norm in farms.

Source: Agrostatistics "System for agricultural and accounting information – FADN".

The considerably lower levels of the profitability norm without subsidies show that they play an important role in the formation of the final economic results of agricultural holdings. It must be noticed that the profitability norm without subsidies in the period of 2008-2012 is considerably lower, compared to the previous period. Data show that there was not any increase of costs effectiveness.

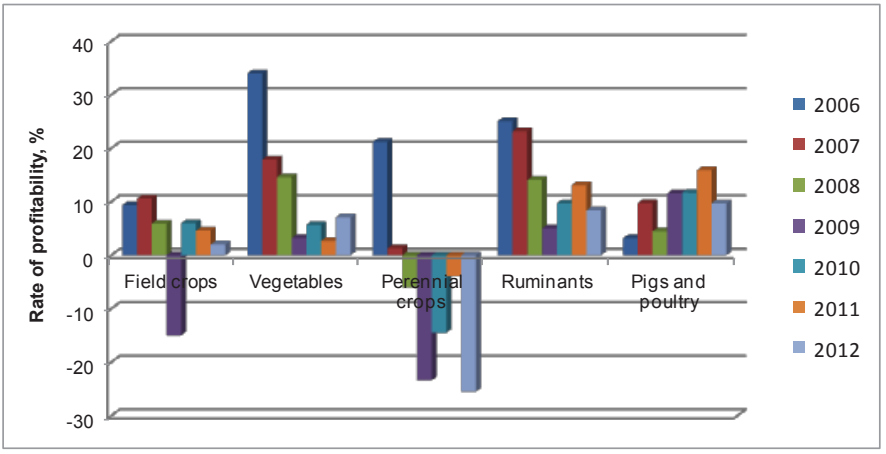

Fig. 13. Profitability norm with subsidies, per farm specialization.
Source: Agrostatistics "System for agricultural and accounting information – FADN".

The profitability norm is a strongly fluctuating value for all the farms, independently of their specialization (Fig. 13). It is hard to indicate the type of farm with realized lasting higher profitability norm in the analyzed period. In different years (in the period of 2006-2008) relatively higher profitability norm is noted for farms with vegetables and ruminants. In the period after 2009, relatively better results have been achieved by the farms breeding pigs and poultry, despite the lowest support amount.

On the other hand are the perennial crop farms, which after 2007 have more and more increasing profitability norm.

As a general trend for farms, excluding these breeding pigs and poultry, lower profitability norm could be outlined after 2008 compared to the transition period (2006-2008).

Results show that the increasing size of the support has not been accompanied by increase in production profitability and efficiency of involved costs. The agricultural production remains little profitable due to the insufficient productiveness and the high level of expenditure.

The profitability norm without subsidies provokes interest. Excluding the pigs and poultry farms, in some years the profitability norm without subsidies is a negative value (Fig. 14).

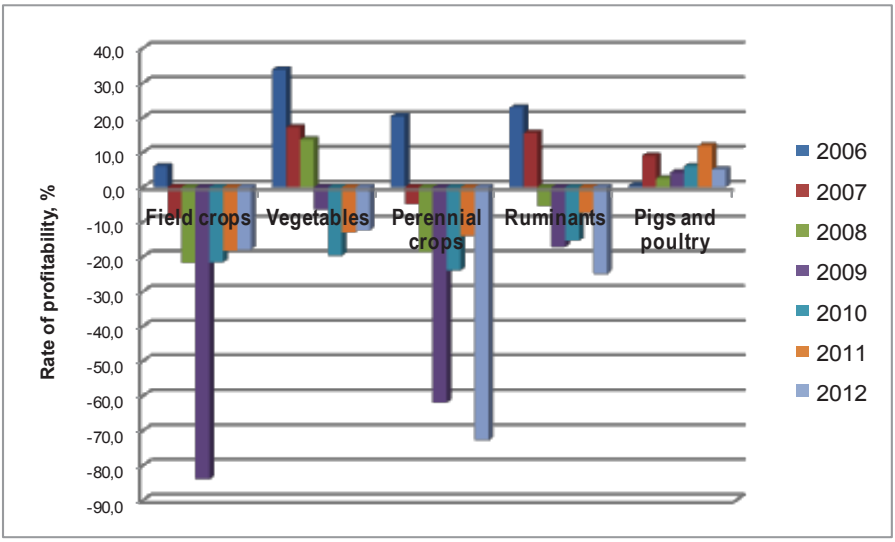

Fig. 14. Profitability norm without subsidies, per farm specialization.
Source: Agrostatistics "System for agricultural and accounting information – FADN" and own calculations.

The analysis shows the following outlined trends and generalized conclusions for the organization and economic structure of Bulgarian agriculture:

– Durable trend of diminution of farm number, as most dynamic are processes at micro- and small farms. The ongoing restructuring does not lead to important positive changes of organization and economic structure – the dominant share of small farms remains and the small number of large economic structures.
– The irrational organization and economic structure of agriculture is kept. The bipolar model of farm structure deepens – the differentiation between the small family farm size and the big farms of legal entities increases.
– There is a positive trend of consolidation of areas, increase of the production specialization and concentration level, improving the market orientation of farms.
– The average economic size remains low and there is a strongly expressed difference of the potential of farms, per types of farms, depending on their specialization.
– The low level of farms diversification, showing a downward hend, leads to restriction of opportunities for incomes increase and risk of incomes instability.
– There is no clear trend of farms effectiveness increase. The average size of the gross output and the labour productivity show an increasing trend, due to the considerable growth of these indicators in field crop farms. The indica-

tors in other farm types are below the average for the country. Serious are the fluctuations in the resultant indicators – net income and norm of profitability.
– Economic indicators for field crop farms exceed many times the achieved results of other farm types, but the production has low profitability. Thus, the performed results are due to the considerably bigger sizes of farms and to the received support and not to the more effective production.
– The farms with perennial crops are in the hardest situation. With the low productiveness and high costs, the producers in this sector face severe economic problems. The extremely low economic results, non-corresponding to the intensive production, show the deepening crisis in the sector;
– The received support leads to increase in farmers incomes, but does not help as regards the effectiveness growth and the production profitability.

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NINA KOTEVA
Instytut Ekonomiki Rolnictwa
Sofia

TRENDY W RESTRUKTURYZACJI GOSPODARSTW ROLNYCH W BUŁGARII

Abstrakt

Kwestia restrukturyzacji jest niezwykle złożona, ponieważ jej znaczną część stanowi restrukturyzacja organizacyjno-ekonomiczna rolnictwa. Wyjściowe zmiany w gospodarstwach rolnych są bardzo istotne. Realizacja polityki europejskiej, przeznaczonej dla rolnictwa na wyższym poziomie gospodarczym, technologicznym i rynkowym niż rolnictwo w Bułgarii, powoduje pewne zmiany pozytywne, ale również i liczne problemy. Bez odpowiedzi pozostaje pytanie o wpływ zmian strukturalnych w gospodarstwach rolnych na ich sytuację ekonomiczną.

Słowa kluczowe: gospodarstwo rolne, restrukturyzacja, bułgarskie gospodarstwa rolne, potencjał gospodarczy, specjalizacja gospodarstw rolnych.

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