

Common Agricultural Policy in the Context of the New Challenges

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Abstract: The paper puts into account the future development of the EU agriculture under the new approach of different levels of integration from 2021. The analysis in the paper is important at least from two aspects: agriculture is a very important activity for the EU and PAC risks to become inefficient under this new approach. In order to point out the effects of multilevel integration on agriculture, the analysis is focused on four representative indicators: crop output, animal output, gross value added and agricultural income. The comparative analysis leads to an intermediate conclusion that the Member States can be grouped into three clusters. Moreover, regression leads to the same conclusion: greater disparities related to agriculture between the three levels of integration and inside each circle of integration. The analysis covers financial and physical aspects of the agriculture and is based on the latest official statistic data, tables and diagrams. The main conclusion of the analysis is a very pessimistic one: an EU with three levels of integration will lead to important increase in regional disparities at least for agriculture.

Keywords: CAP allocations; multilevel integration; regional agricultural disparities; regional agricultural clusters.

JEL Classification: F62; F63; R12; R14.

1. Introduction

The Common Agricultural Policy (CAP) is one of the oldest and the most reviewed European policy. It has to face to the permanent changing in world agricultural markets and to the new challenges regarding this activity. Not least, agriculture is an important strategic economic activity.

The EU rural population represents 22.3% from total population. On the other hand, the greatest rural populations are in France (17.3%), Germany (11.7%), Poland (11.2%) and Italy (10.8%). Moreover, the rural population share in EU28 is greater than the total population share in Poland and France (European Commission, 2016, p.1).

The latest CAP reform was implemented in 2013 and covers 2014-2020.

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The political approach for this new reform was defined before, in a communication of the European Commission (European Commission, 2010).

The construction of the present CAP was made under the same two pillars: Direct Payments and market-related expenditure (Pillar 1; 312.74 billion Euros) and Rural Development (Pillar 2; 95.58 billion Euros) (see Figure 1).

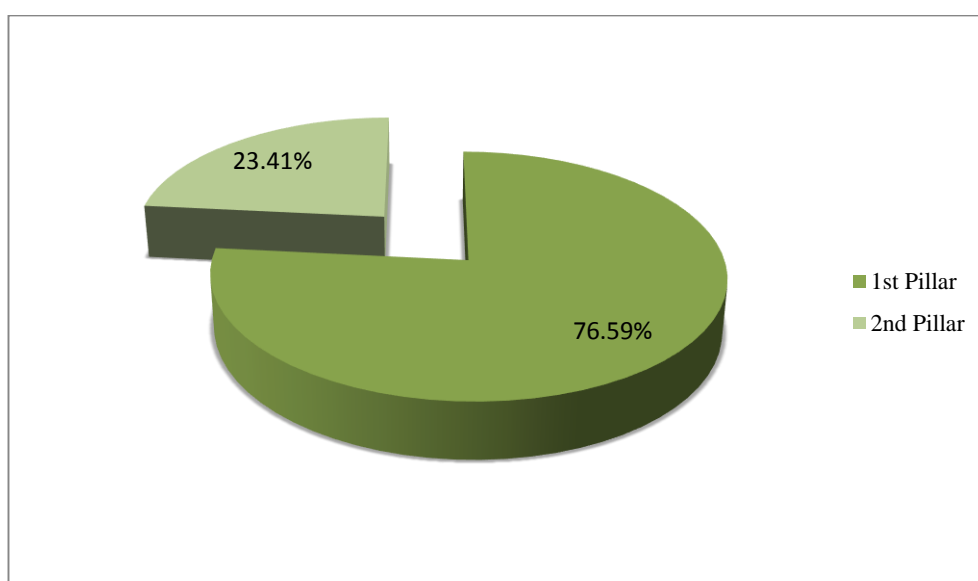


Figure 1. CAP budget 2014-2020 (%)

Source: Personal contribution

This budget has to be reviewed at least for the latest two years of the present financial perspective as a result of Brexit in 2019.

According to the new CAP, restrictions on production volumes for dairy were eliminated and the Green Direct Payment, as new policy instrument in Pillar 1, was implemented in 2015. The restrictions on production volumes for sugar and wine will be eliminated in 2017 and 2018, as well (European Commission, 2013).

Nowadays, the CAP's five targets are financed from both pillars using special instruments (see Figure 2).

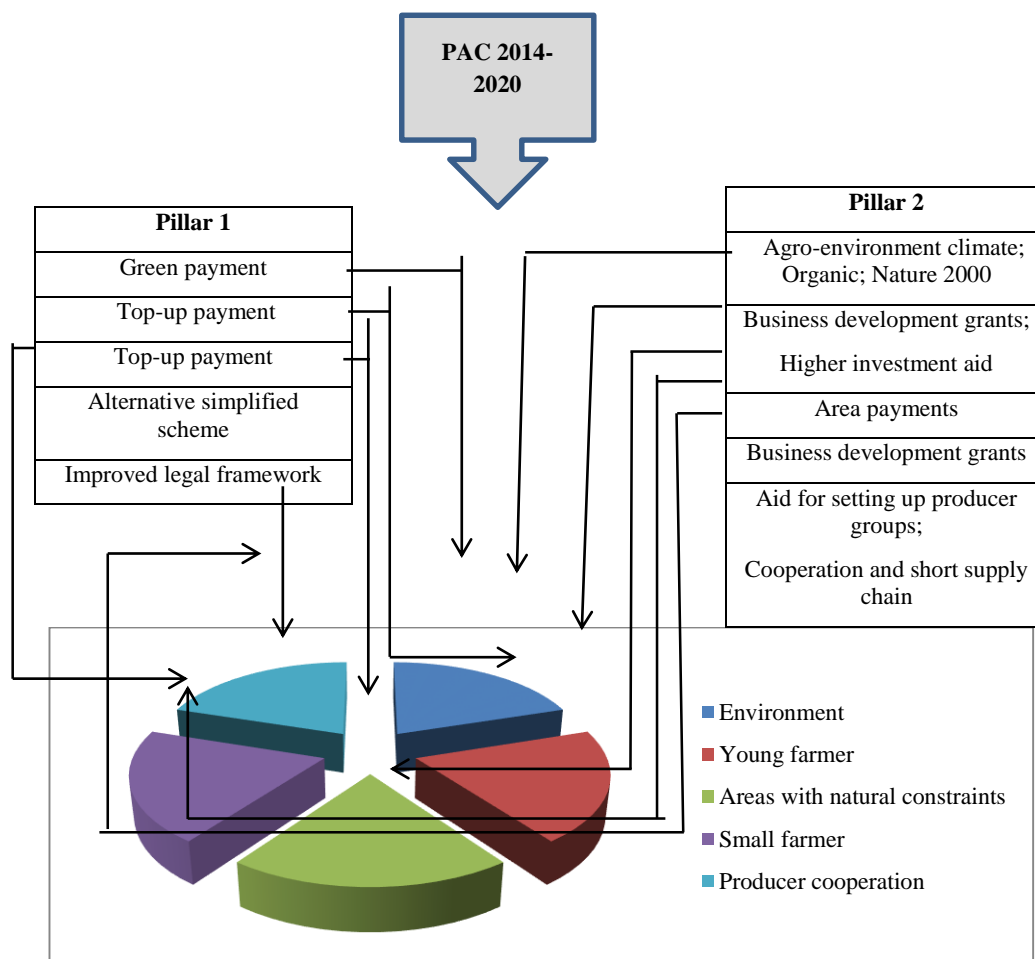


Figure 2. CAP's targets and financial instruments

Source: Personal contribution

The analysis in the paper is focused on present EU agriculture. It points out both agricultural disparities between Member States and the unusual agricultural situation in some representative economies.

2. Literature Review

The literature review has to start to a question related to the necessity of CAP. Argues used to answer to this questions cover: food security, land management, viable rural areas, competitiveness in a global market, and responding to climate change. Moreover, CAP has to face to volatile markets, to generate public goods, sustainable rural environment and value added (European Commission, 2009).

An interesting study realised by the European Commission is focused on the connection between EU agriculture and climate change. According to it, EU agriculture's emissions cover 10.3% from the total EU pollution. Ireland (31%), Lithuania (23%) and Latvia (22%) face to highest agricultural emissions. On the other hand, Malta (2.5%), Czech Republic (6%) and Luxembourg (6%) succeeded in achieving the lowest agricultural emissions across the EU28. The analysis points out two important greenhouse gases from agriculture (CH_4 and N_2O). The impact of these emissions on climate change across the EU is high. The Central and Eastern Europe, for example, will face to increase in warm temperature extremes, in water temperature and in risk of forest fire. On the other hand, the same region will face to decrease in summer precipitation and in economic value of forests (European Commission, 2015, p. 3).

A different research paper put into discussion the connection between the decrease of the import tariffs and the quality of the food products exported to the European Union. In order to demonstrate this connection, a "distance to the frontier" model is used. The main conclusion of the analysis is that of the existence of a relationship between competition and quality upgrading, in response to an increase in import competition (Curzi, Raimondi & Olper, 2015). A recent research points out the fact that some Member States continued to emitted above legal limits. The emissions are those related to nitrogen oxides (NO_x), non-methane volatile organic compounds (NMVOCs), sulphur dioxide (SO_2) and ammonia (NH_3). As a result, 10 Member States emitted above legal limits during the latest five years. On the other hand, only Bulgaria, Cyprus, Czech Republic, Estonia, Greece, Hungary, Italy, Latvia, Lithuania, Poland, Portugal, Romania, Slovakia and UK succeeded in achieving emissions in accordance to legal limits during the same time period (European Environment Agency, 2016).

Nowadays, the sustainable agriculture becomes an important goal for the EU. This is why the EU decision makers are interested in finding the best

incentives for farmers in order to orient them to this kind of agriculture. The analysis covers expected economic, social and personal rewards, on one hand, and role of producers' financial risk perception and risk tolerance, on another hand. Interesting conclusions come from this analysis. First, the adoption of agricultural sustainable practices is not dependent by social and personal rewards, education and age (Trujillo-Barrera, Pennings & Hofenk, 2016). One of the R&D effect on agriculture is digital farming. One of the latest researches talks about interoperability, which is able to support “machines talking to each other.” This new challenge for the EU agriculture led to important changes in the European farm machinery industry, as well. Moreover, an Agricultural Industry Electronics Foundation (AEF) was launched in 2008, in order to define and to implement standards for smart, interoperable farm machines (European Agricultural Machinery, 2017).

3. Financing PAC during 2015-2020

During 2015-2020, PAC will finance the two pillars. The total direct payments cover 252.24 billion euros, while the rural development will benefit of 95.58 billion euros (see Figure 3).

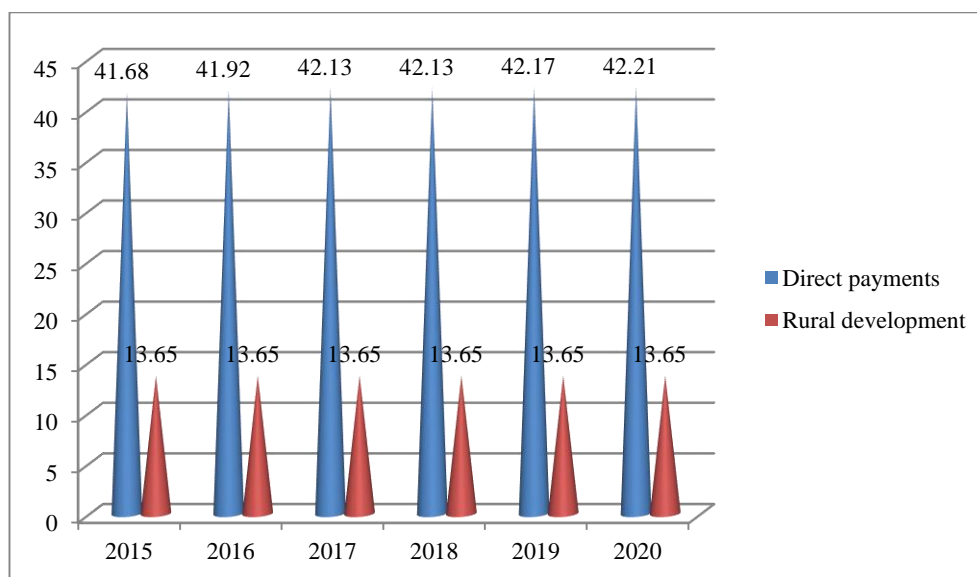


Figure 3. CAP's allocations

Source: Personal contribution using European Commission 2, 2016.

The above allocations from Figure 3 lead to high disparities between Member States (see Table 1).

Table 1. CAP allocations on Member States during 2015-2020 (billion euros)

Member State	Direct payments	Rural development	Total
Belgium	3.15	0.55	3.70
Bulgaria	4.54	3.34	7.88
Czech Republic	5.24	2.17	7.41
Denmark	5.42	0.63	6.05
Germany	30.58	8.22	38.8
Estonia	0.84	0.73	1.57
Ireland	7.28	2.19	9.47
Greece	12.01	4.20	16.21
Spain	29.17	8.29	37.46
France	45.05	9.91	54.96
Croatia	1.07	2.33	3.40
Italy	22.96	10.43	33.39
Cyprus	0.30	0.13	0.43
Latvia	1.41	0.97	2.38
Lithuania	2.73	1.61	4.34
Luxembourg	0.20	0.10	0.30
Hungary	7.60	3.46	11.06
Malta	0.03	0.10	0.13
Netherlands	4.57	0.61	5.18
Austria	4.15	3.94	8.09
Poland	18.09	10.94	29.03
Portugal	3.47	4.06	7.53
Romania	10.49	8.02	18.51
Slovenia	0.82	0.84	1.66
Slovakia	2.31	1.89	4.20
Finland	3.40	2.38	5.78
Sweden	4.19	1.75	5.94
UK	21.41	2.58	23.99

According to the latest official proposal for a Europe with three development speeds, the Member States from the 2nd circle will receive the greatest amount (see Figure 4).

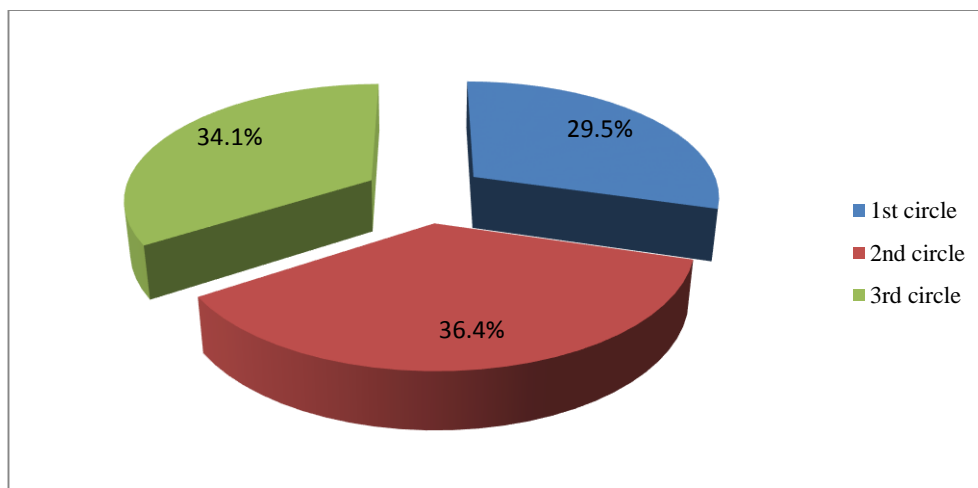


Figure 4. CAP's allocations under the new EU vision

Source: Personal contribution

According to the above figure, the Member States which face to greater development challenges will receive the lowest part of the CAP's allocations. It is not a good approach for the cohesion policy's goals.

4. Agricultural Disparities across the European Union

The analysis in the paper is focused on four pertinent indicators: crop output, animal output, gross value added and agricultural income. The latest official statistic data cover 2015 (see Table 1).

Table 2. First circle Member States' agricultural economic accounts (million euros)

Member State	Crop output	Animal output	GVA	Agricultural income
Belgium	3855	2812	2120	2031
Germany	26040	12928	13644	11635
France	42431	15237	28870	26073
Luxembourg	167	93	95	70
Netherlands	12925	5053	9906	6931
Total	85418	36123	54635	46740

According to Table 1, the first circle with high integration processes covers 42.5% from EU total crop output, 43.1% from total animal output, 35.5% from GVA and 33.8% from total agricultural income.

The second circle (level of integration) would group the Member States from the Euro area (excepting those from the 1st circle): Austria, Cyprus, Estonia, Finland, Greece, Ireland, Italy, Latvia, Lithuania, Malta, Portugal, Slovakia, Slovenia, and Spain. Their economic accounts are presented in Table 3.

Table 3. Second circle Member States' agricultural economic accounts (million euros)

Member State	Crop output	Animal output	GVA	Agricultural income
Austria	2912	1820	2697	2093
Cyprus	330	170	306	350
Estonia	461	142	348	390
Finland	1285	735	453	1272
Greece	7081	1267	5519	6332
Ireland	1779	3447	7159	3134
Italy	29999	9689	32197	24788
Latvia	789	150	274	467
Lithuania	1510	357	852	981
Malta	53	41	61	74
Portugal	3697	1729	2432	2458
Slovakia	1092	378	486	675
Slovenia	721	297	527	520
Spain	25726	11637	21117	22064
Total	77435	31859	74428	65598

According to Table 3, the second circle with high integration processes covers 38.6% from EU total crop output, 38.0% from total animal output, 48.4% from GVA and 47.7% from total agricultural income.

Finally, the 3rd circle covers Member States which not belong to Euro area: Bulgaria, Czech Republic, Denmark, Croatia, Hungary, Poland, Romania and Sweden. UK is under exit negotiations and will be not member of the EU in 2021 (see Table 4).

Table 4. Third circle Member States' agricultural economic accounts (million euros)

Member State	Crop output	Animal output	GVA	Agricultural income
Bulgaria	2439	460	1396	1897
Czech Republic	2671	777	1346	1830
Denmark	3496	3308	2567	2085
Croatia	1183	440	882	915
Hungary	4460	1685	2786	3650
Poland	11288	5898	7779	9409
Romania	9450	1801	6444	4658
Sweden	2820	1421	1665	1650
Total	37807	15790	24865	26094

According to Table 4, the third circle with high integration processes covers 18.9% from EU total crop output, 18.9% from total animal output, 16.1% from GVA and 18.5% from total agricultural income.

Regarding the crop output, the Member States from the 1st circle achieve 1st rank (see Figure 5).

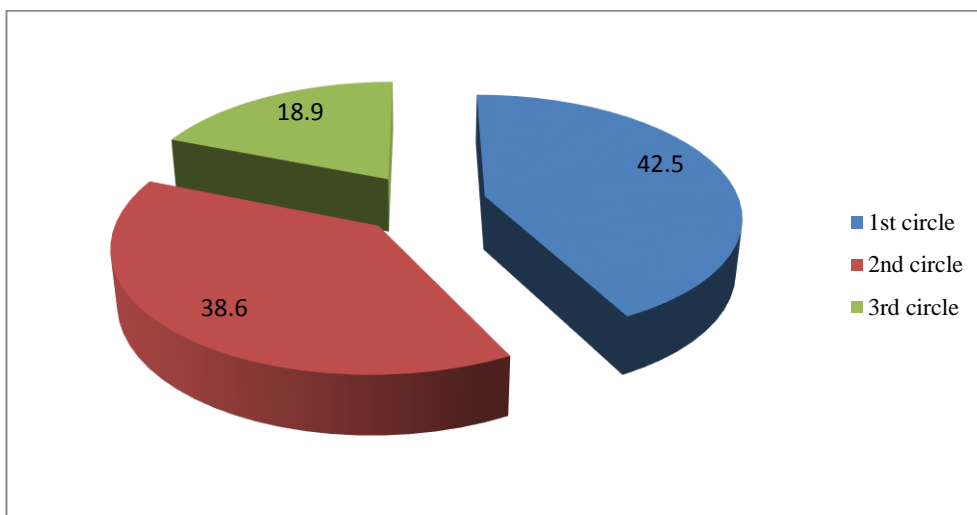
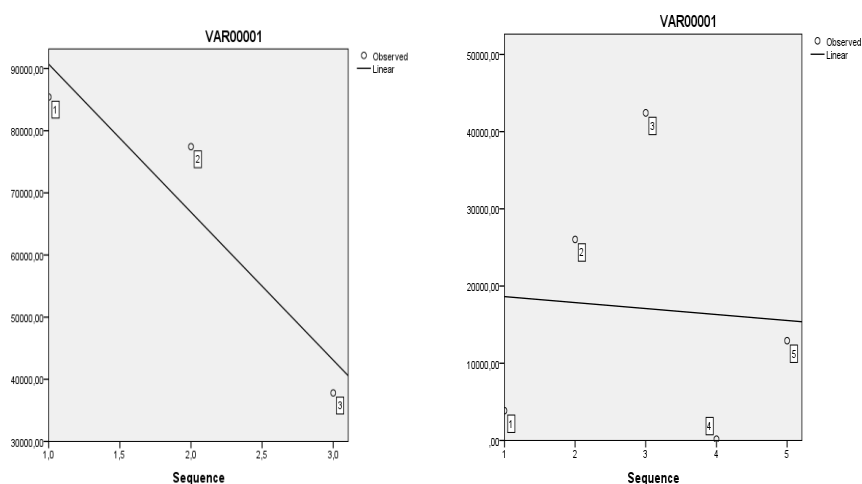


Figure 5. Crop output under the new EU vision

Source: Personal contribution using Eurostat, 2016

In order to point out the disparities between these three clusters related to the crop output, the regression analysis is usefully (see Figure 6).



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| 1. 1 st circle Member States; | 1. Belgium; 2. Germany; 3. France; 4. Luxembourg; |
| 2. 2 nd circle Member States; | 5. Netherlands |
| 3. 3 rd circle Member States | |

Figure 6. Crop output disparities across EU27 and 1st circle Member States

Source: Personal contribution

Is no doubt that, from the crop output’s point of view, there are great disparities between the Member States grouped into the three clusters (circles). Moreover, the same great disparities can be found inside the 1st circle (Figure 6, right side).

The animal output leads to the same great disparities between the three clusters and inside the 1st circle (see Figure 8). For the beginning, the analysis points out that the same 1st circle covers 43.1% from total animal output (see Figure 7).

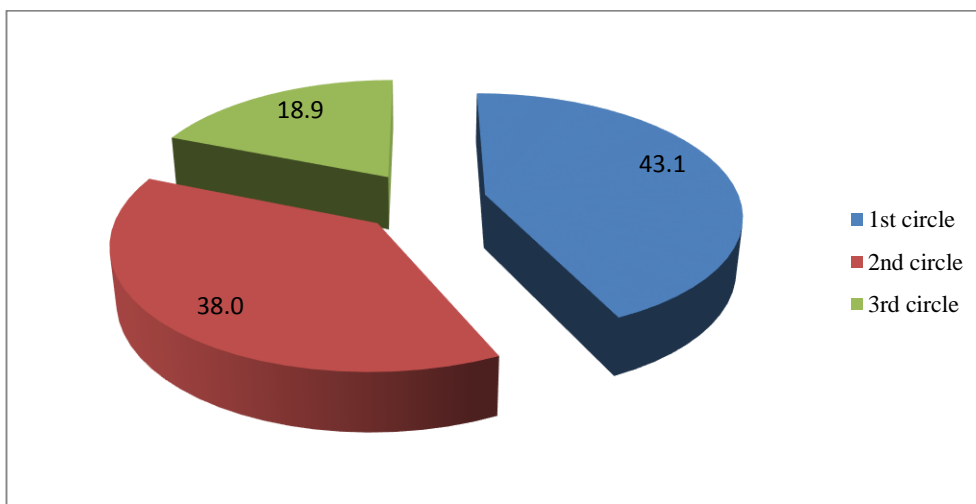
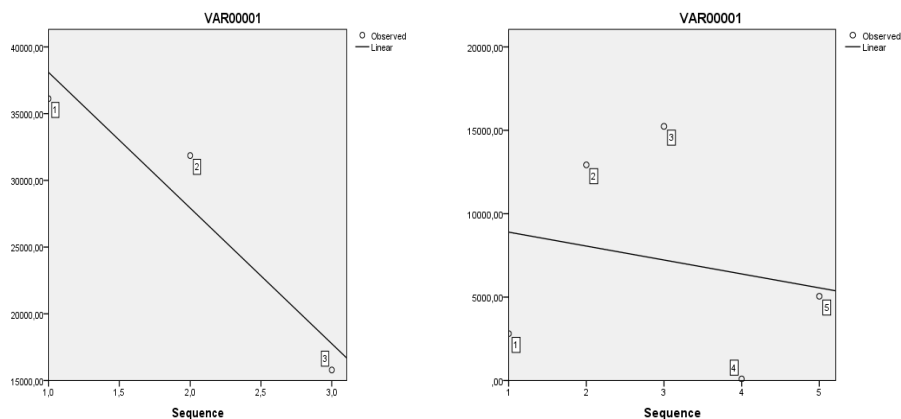


Figure 7. Animal output under the new EU vision

Source: Personal contribution using Eurostat, 2016

The animal output disparities between circles are lower than those between Member States from the 1st circle.



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|--|---|
| <ul style="list-style-type: none"> 1. 1st circle Member States; 2. 2nd circle Member States; 3. 3rd circle Member States | <ul style="list-style-type: none"> 1. Belgium; 2. Germany; 3. France; 4. Luxembourg; 5. Netherlands |
|--|---|

Figure 8. Animal output disparities across EU27 and 1st circle Member States

Source: Personal contribution

GVA is a good indicator able to point out the disparities from agriculture across the Member States. The states from the 2nd circle have the greatest part of the total GVA. They are followed by those from the 1st and the 3rd circles (see Figure 9).

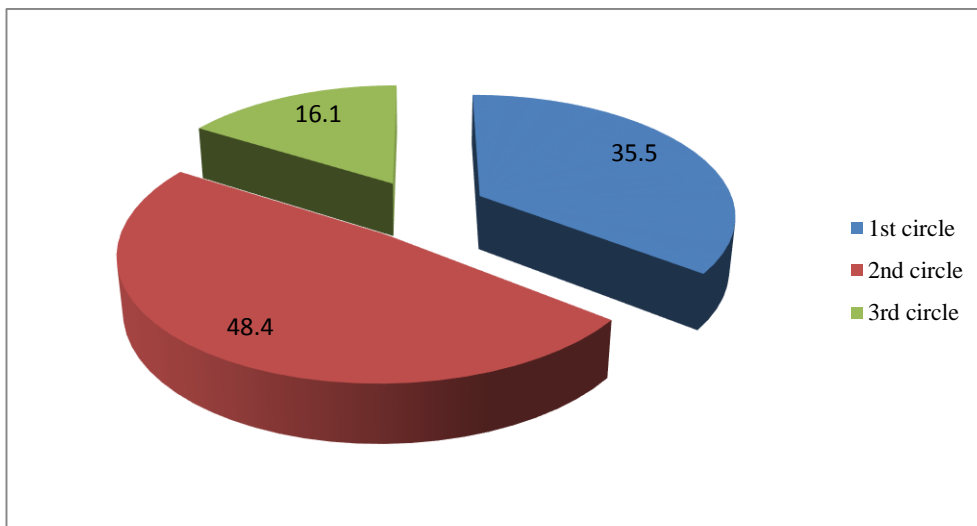
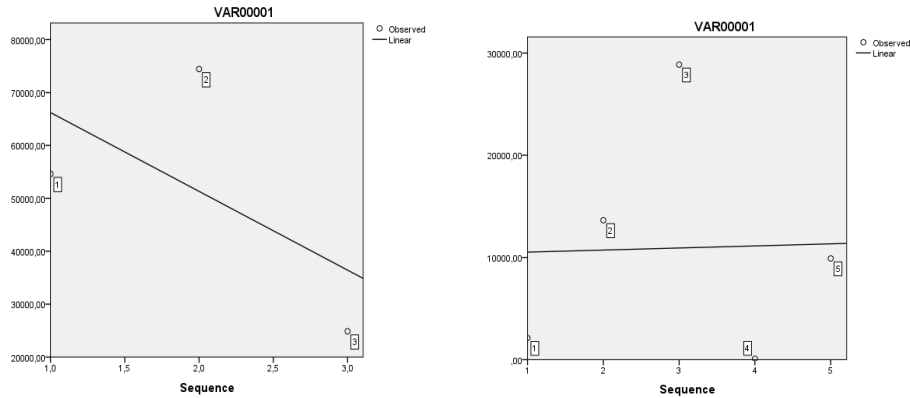


Figure 9. GVA under the new EU vision

Source: Personal contribution using Eurostat, 2016

The same situation is pointed out by regression: greater disparities inside the 1st circle than between the three circles (see Figure 10).



1. 1st circle Member States;
2. 2nd circle Member States;
3. 3rd circle Member States

1. Belgium; 2. Germany; 3. France; 4. Luxembourg;
5. Netherlands

Figure 10. GVA disparities across EU27 and 1st circle Member States

Source: Personal contribution

Last, but not least, the agricultural revenues lead to the same conclusion: the worst position is ranked by Member States from the 3rd circle of integration (see Figure 11).

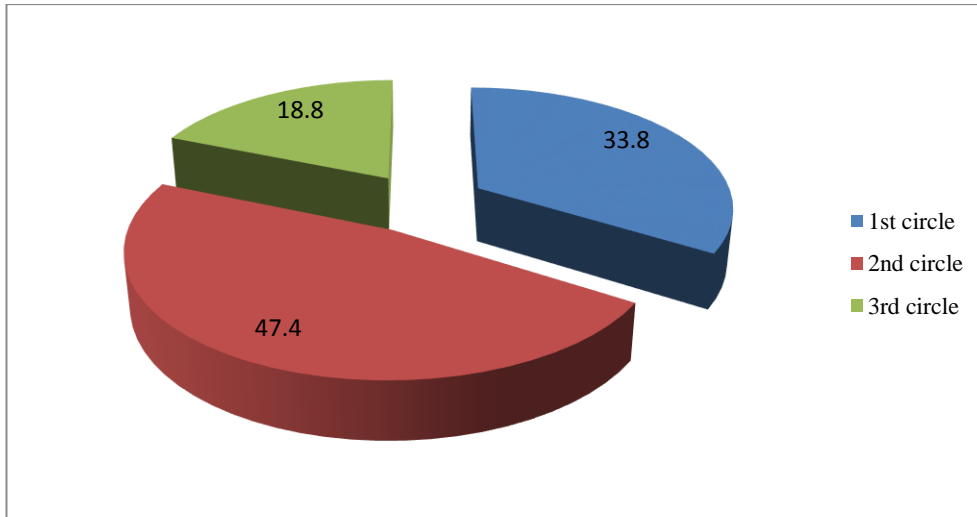
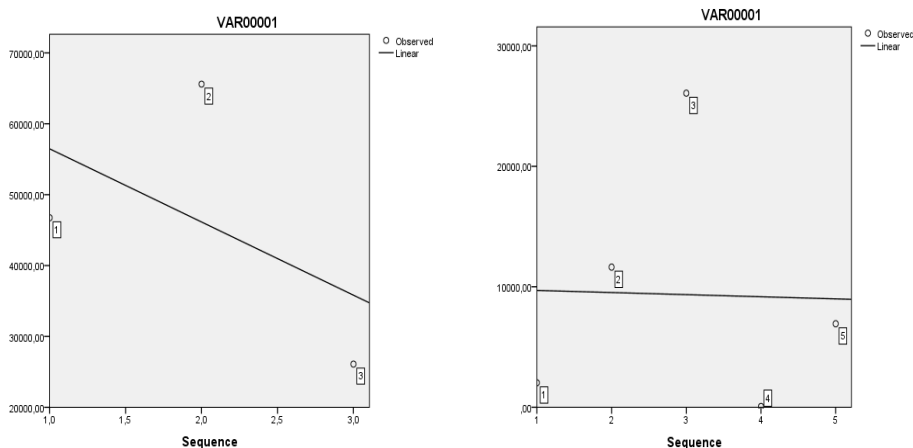


Figure 11. Agricultural revenues under the new EU vision

Source: Personal contribution using Eurostat, 2016

Agricultural revenues support the same greater disparities between Member States from the 1st circle, as well (see Figure 12).



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|----|---------------------------------------|----|--|
| 1 | 1 st circle Member States; | 1. | Belgium; 2. Germany; 3. France; 4. Luxembourg; |
| 2. | 2 nd circle Member States; | 5. | Netherlands |
| 3. | 3 rd circle Member States | | |

Figure 12. Agricultural revenues disparities across EU27 and 1st circle Member States
Source: Personal contribution

5. Conclusion

The above analysis in the paper was made in order to demonstrate the viability of a new approach for the EU from 2021 based on three levels of integration. Unfortunately, this approach seems to be realistic at least from the agricultural point of view.

The Member States from the 1st circle of integration cover important percentages from the EU's crop output, animal output, gross value added and agricultural income. As a result, these countries will be able to obtain better economic results and to increase integration under PAC.

The 2nd integration circle, which covers the states from the Euro area, presents enough elements to build a distinct trend of the agriculture.

Finally, the 3rd circle covers countries with great agricultural potential (Bulgaria, Poland and Romania), but which are not able to implement the best agricultural reform and policy.

At least for agriculture, an EU with three levels of integration will lead to an increase in regional disparities. As a result, the Cohesion Policy seems to become a fairy tale.

6. References

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