

DIRECTORATE-GENERAL FOR INTERNAL POLICIES

POLICY DEPARTMENT
STRUCTURAL AND COHESION POLICIES **B**

Agriculture and Rural Development

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**THE CAP TOWARDS 2020:
POSSIBLE SCENARIOS FOR
THE REALLOCATION
OF THE BUDGET FOR
DIRECT PAYMENTS**

NOTE



DIRECTORATE GENERAL FOR INTERNAL POLICIES
POLICY DEPARTMENT B: STRUCTURAL AND COHESION POLICIES

AGRICULTURE AND RURAL DEVELOPMENT

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Possible scenarios for the reallocation of
the budget for direct payments**

NOTE

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Possible scenarios for the reallocation of
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Abstract:

This is the second paper written by Policy Department B for the EP Working Group on Common Agricultural Policy Reform. The purpose of this document is to facilitate the legislative work of the MEPs relating to the next reform of the CAP. Based on a specific reference made in the Commission's Communication of 18 November 2010, this paper focuses on some possible scenarios for limiting the gains and losses of Member States as part of the reallocation of the budget for direct payments. These scenarios are merely an illustration of the implications of using different allocation criteria and different methodologies for limiting the extent of the potential redistributions. Their selection should in no way be interpreted as being the recommendations of the Policy Department.

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I. THE REALLOCATION OF DIRECT PAYMENTS BETWEEN MEMBER STATES: THE COMMISSION PROPOSAL AND THE ALLOCATION CRITERIA SELECTED FOR THE ANALYSIS

1. THE COMMISSION PROPOSALS ON THE FUTURE ALLOCATION OF DIRECT PAYMENTS BETWEEN MEMBERS STATES

A public debate on the future of the CAP was launched by the **European Commission** in April 2010. With the aim of bringing together the various contributions submitted during the debate and continuing the thinking on the objectives and principles of the new policy, a conference on the CAP post-2013 took place on 19-20 July 2010 in Brussels. On the basis of the conference, the Commission has presented its Communication "*The CAP towards 2020: meeting the food, natural resource and territorial challenges of the future*" ⁽¹⁾.

In the context of the reform of the CAP, one of the most sensitive issues is represented by the future distribution of direct payments between Member States. In this field the Communication makes explicit the need for a **greener and more equitably distributed first pillar** (Section 1). On the broader question of the overall CAP budget, however, the Communication remains silent, with only passing reference being made to the funding split between the Pillars when differentiating the three broad policy options.

It is within the broader financial context of the EU Budget review ⁽²⁾ that the issue of the future allocation of direct payments needs to be set, considering that, at a strategic level, the overall EU budgetary receipts of each Member State, including structural and cohesion funds, are likely to have a bearing on the final outcome of the CAP budget negotiation. Indeed, several Member States have already emphasised the need to consider the combined allocation of both Pillar 1 and 2 when agreeing the future distribution of the CAP budget ⁽³⁾.

This Working Paper, however, focuses narrowly on some possible scenarios for redistributing Pillar 1 direct payments, specifically analysing the proposal in the Communication for a system that **limits the gains and losses of national envelopes** "by guaranteeing that farmers in all Member States receive on average a minimum share of the EU-wide average level of direct payments" ⁽⁴⁾.

As outlined in the previous Working Paper by Policy Department B on Common Agricultural Policy Reform ⁽⁵⁾, the Communication makes no reference to the basis on which such future allocations could be made. It is also not clear what criteria or indicators will be used by the Commission in order to establish the new ceilings (national envelopes) in Pillar 1, how the

¹ EC Communication (COM (2010) 672, 18 November 2010: "*The CAP towards 2020: Meeting the food, natural resources and territorial challenges of the future*". (http://ec.europa.eu/agriculture/cap-post-2013/Communication/index_en.htm).

² EC Communication on the EU Budget Review (COM (2010) 700, 19 October 2010).

(http://ec.europa.eu/budget/reform/index_en.htm).

http://ec.europa.eu/budget/reform/library/Communication/com_2010_700_en.pdf).

³ Countries including France, Belgium, the Netherlands and the UK are reported by the specialist press as wanting to see Pillar 2 as well as Pillar 1 allocations be subject to more equitable distribution – and that the two should be looked at globally (see, for example, *Agra Europe*, No. 2453, 4 March 2011, p 3).

⁴ EC Communication (COM (2010) 672, 18 November 2010: "*The CAP towards 2020: Meeting the food, natural resources and territorial challenges of the future*". (http://ec.europa.eu/agriculture/cap-post-2013/Communication/index_en.htm), Section 6.1, p 8.

⁵ <http://www.europarl.europa.eu/activities/committees/studies/download.do?language=en&file=33103>.

"gains and losses" of Member States will be limited and what would be the "*minimum share of the EU-wide average level of direct payments*" to be received by the farmers on average in all Member States. Furthermore, it is worth remarking that this exercise of reallocation between the Member States will inevitably imply a subsequent redistribution of the current direct payments between the regions and the farmers inside every Member State.

The only certain element is that the Communication tries to steer the debate away from the universal **flat rate payment model**, arguing this is necessary to take account of the **diversity of economic and physical conditions** affecting European agriculture.

On this basis, **various hypotheses of reallocating** direct payments between Member States, that involve **several different indicators and criteria** of redistribution, have been floated in the debate.

The analysis presented is intended as an **objective contribution** to ongoing discussions on the ways in which the funding of direct aids might be allocated in future. It is important to stress that the possible scenarios presented in this paper are merely an **illustration** of the implications of using difference allocation criteria as the basis for the future redistribution of the Pillar 1 direct payments ceilings and different methodologies for **limiting the extent of the potential redistributions**.

The selection of the options considered is, therefore, just a theoretical exercise and should in no way be interpreted as being the recommendations of the Policy Department or the position of the European Parliament more generally.

2. THE SELECTION OF THE PARAMETERS AND CRITERIA FOR REALLOCATION OF RESOURCES BETWEEN MEMBER STATES: ASSUMPTIONS, DATA AND METHODOLOGY

2.1. Assumptions

In order to conduct a theoretical exercise of this nature, it is necessary to apply a series of assumptions to construct the counterfactual against which the scenarios can be judged. For example, for the purposes of this analysis and in the absence of any concrete alternative proposal, it has been assumed that the **overall budget for Pillar 1 direct payments will remain static for the period after 2013**. Furthermore, the baseline against which the future Pillar 1 allocations, stemming from the scenario analysis, have been compared is the existing Member State direct payment ceilings net of all modulation deductions.

2.2. Methodological approaches

The simulation of alternative models for allocating the direct payments budget is based on **two methodological approaches**: the first one uses **combinations of selected indicators** (composite indices, §2.2.2); the second uses **algorithms** designed to draw a more equitable distribution of the budget (§2.2.3).

These both approaches relate to the two basic conditions mentioned in the EC Communication of 18 November 2010:

- the need for a **more equitably distributed** first pillar;
- the need for a **system that limits the gains and losses** of national envelopes.

2.2.1. Reallocation of resources by combining selected indicators

Previous studies ⁽⁶⁾ on the subject of new approaches to allocating the CAP budget have used numerous different alternative allocation criteria ⁽⁷⁾. The primary objective underlying the analysis cited has been to identify a new resource reallocation key which recognises that:

- 1 - The CAP is pursuing **multiple objectives** (economic, territorial, social and environmental). The EC Communication confirms this **multifunctional** approach, proposing to pursue these objectives simultaneously through payments to active farmers.
- 2 - The distribution of direct support should be directed to strengthen the **targeting** of subsidies to the **objectives of the CAP**.

In this context, and taking into account the limitations provided by the Communication on the impact of the reallocation models on budgetary distributions, in this analysis, various indicators are used individually or in combination, to illustrate some possible redistributive scenarios.

47 scenarios were simulated. Those presented in the following pages illustrate a selection which may be deemed to meet the objectives of the Communication of achieving a more equitable distribution, while limiting the gains and losses between Member States.

For the analysis, the following five such indicators have been selected for the simulation ⁽⁸⁾:

a) Agricultural area indicators: parameters

The agricultural area is expressed in terms of **potential eligible surface**. The values of this indicator have been derived indirectly by dividing the Member State budget devoted to direct payments by the number of **beneficiaries**, using the information provided by EC "*breakdown of direct payments by Member State and size-class of aid - Financial year 2009*" ⁽⁹⁾. **Agricultural surface area is the basic indicator** for the definition of composite indices used in the simulations. The decision to choose this indicator as the main one for the analysis stems from the assumption that the basic objective of decoupling is the definition of a **decoupled payment, made on a per-hectare basis**.

Moreover, as reported in the EC Communication, the "*basic*" component of the proposed future system of direct payments will be granted through a basic decoupled direct payment, providing a **uniform level of obligatory support to all farmers in a Member State (or**

⁶ See, for example, Cao, Y., Elliott, J. Moxey, A and Zahrnt, V. (2010), *Alternative Allocation Keys for EU CAP Funding*. Report to LUPG. ADAS UK Ltd, ECIPE and Pareto Consulting.

⁷ Possible alternative allocation criteria for redistributing CAP funds that have been previously analysed include: Utilisable Agricultural Area, Farmland Woodland Area, Permanent Grassland Area, Natura 2000 Area, Organic Farming Area, Extensive Agriculture, Agricultural Labour, Less Favoured Area, Agricultural Value Added and Agricultural Output.

⁸ See Annex 3 that explains the advantages and disadvantages of every variable used in the Scenarios proposed.

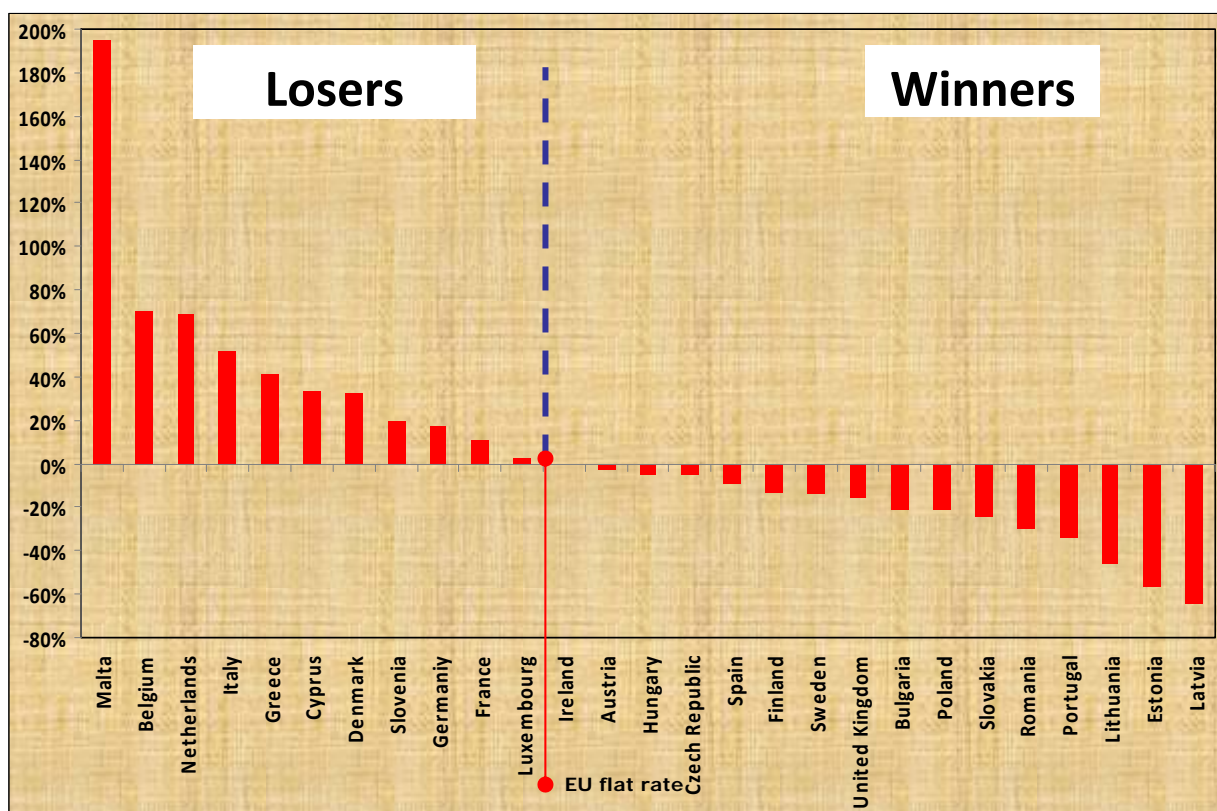
⁹ http://ec.europa.eu/agriculture/fin/directaid/2009/annex1_en.pdf.

in a region) based on transferable entitlements that need to be activated by matching them with eligible agricultural land, plus the fulfilment of cross-compliance requirements.

It would be a uniform area payment to all farmers in a Member State (or a region), implying **the end of the historic basis for payments as practiced in some Member States.**

The idea of a uniform payment per hectare for all European farmers, although circulated vigorously in the debate on the future of the CAP, was dismissed by the Commission because of the radical changes that would be entailed. **Figure 1** shows how the average individual flat-rate Member State direct payments deviate from the overall average per-hectare payment across Europe, highlighting the winners and losers of this hypothetical scenario which would envisage every hectare of eligible agricultural area receiving a uniform rate, comparing it against the current baseline.

FIG. 1 – “EU uniform area payment” scenario - Winners and Losers



Source: Data processed by the authors (see Annex III)

b) Agricultural surface including in the Less Favoured area indicator: parameters

The agricultural surface including in the EU Less Favoured Areas is expressed in terms of **Utilisable Agricultural Area (UAA) included in the current definition of EU LFAS** ⁽¹⁰⁾.

¹⁰ The current "Less favoured areas scheme" is described in Council Regulation (EC) No 1698/2005.(OJ L 277, 21.10.2005) (http://ec.europa.eu/agriculture/rurdev/lfa/index_en.htm). The EC Commission is actually

This indicator is linked to the Commission's proposal for providing an **additional income support to farmers in areas with specific natural constraints** in the form of an area-based payment.

c) Agricultural surface including in the Natura 2000 area indicator: parameters

The agricultural surface under Natura 2000 is expressed in terms of **Utilisable Agricultural Area (UAA) included in the EU Natura 2000 area**⁽¹¹⁾.

This indicator is specifically linked to the Commission's proposal for providing, in the context of the EC proposed framework for the future of direct payment, a specific greening support to EU farmers.

d) Labour and output indicators: parameters

The list of indicators has been completed with "*labour*" – total labour force input expressed in **Annual Working Units (AWU)** and the value of "*output of the agricultural industry*".

Both indicators are considered able to reflect, in general terms, the heterogeneity of the EU agriculture in terms of socio - economics conditions. However, these indicators have some disadvantages to be remarked (see Annex 3): the "*agricultural labour*" (AWU) reflect the important annual variability in the current context of the farm restructuring; and the "*output of agricultural industry*" is partially included in the current amounts of direct payments insofar as the SPS was calculated in function of the support of production allocated before 2003. For these reasons the weight of the labour and output indicators are been reduced in comparison to the territorial indicators (surface) in the scenarios chosen.

2.2.2. Methodology building the composite indices

For all indicators was calculated the **hypothetical EU flat rate**, expressed in € per hectare of UAA in LFAs, € per hectare of UAA under Natura 2000, € per 1000 AWU and € per 1000 € of agricultural output.

Subsequently, **composite indices** were constructed; giving to the indicators used, **weights** derived from a pragmatic approach able to respect the reallocation conditions suggested by the Communication ("*equity principle implementation*" and "*limits of gains and losses in the redistribution process*") already mentioned (§2.2.).

An EU flat rate was determined for each composite index. On this basis the analysis shows the variations in the Member States national ceilings that would result from the application of these flat rates, highlighting the **winners and losers** of each hypothesis.

preparing a new classification of areas with natural handicaps (see the EC Communication "*Towards a better targeting of the aid to farmers in areas with natural handicaps*", COM (2009) 161, 21.4.2009) (http://ec.europa.eu/agriculture/rurdev/lfa/comm/index_en.htm). However, in the absence of the new data, we are obliged to use the current classification for the composite indices.

¹¹ Natura 2000 is the EU network of protected areas. Its legal basis comes from the Birds Directive (Council Directive 79/409/EEC of 2 April 1979) and the Habitats Directive (Council Directive 92/43/EEC of 21 May 1992).

In order to limit the gains and losses of individual Member State, we set a limit to the variations from the current individual flat-rate. We simulated **two limits** from EU flat-rate associated with each indicator used in the analysis (**15% and 25%**).

The budget of the Member States with the current flat-rate included within these limits should not be changed. For those MS outside of these limits, the current flat-rate should be varied to position themselves on these limits.

The constraints about the reallocation of direct payments contained in the Communication, realistically take into account the **CAP decision-making condition** under which it carries out the ongoing reform process ⁽¹²⁾.

Based on this consideration the analysis proposed **excluding certain allocation criteria** which, although consistent with the objectives of the CAP, are incompatible with the allocation conditions proposed by the Commission. For example, with the aim of testing combinations of indicators consistent with the "*direct payment scheme*" suggested by the Communication, the analysis has identified criteria linked to the policy objectives underlying the proposed scheme. However, the result of applying some allocation criteria, although consistent with the general idea to find an allocation key able to reflect in part the resource cost in meeting the CAP objectives, **may not be considered wholly compatible with the budgetary redistributive objectives** proposed in the Communication.

One of these results is proposed below. It was obtained through the application of an composite index, composed of three indicators, each connected to one or more components of the overall scheme of the new Multifunctional Payment Scheme proposed by the Commission in November 2010.

TABLE 1. Example of composite index consistent with the proposed "*direct payments scheme*"

Indicator	Linked component of the "<i>direct payments scheme</i>" proposed by Commission	Weight (%) in the composite index
Agricultural surface	Basic and Greening component	40
Agricultural surface including in LFAs	LFAs component	20
Agricultural surface under Natura 2000	Greening component	20
Value of " <i>output of the agricultural industry</i> "	Basic component	20

Source: Data processed by the authors (see Annex III)

¹² Much agricultural economic literature has dealt with this issue. See, among many, **Blankart C.B. and Koester G.B.** (2009), "*Refocusing the EU budget - An institutional view*", Centre for Research in Economics, Management and the Arts, Working Paper n. 2009-16, Basel (<http://www.crema-research.ch/papers/2009-16.pdf>); **Kay A.** (2003), "Path dependency and the CAP", *Journal of European Public Policy*, 10, 3, pp. 405-420; **Swinnen J.** (2008) (Ed.) "*The Perfect Storm. The Political Economy of the Fischler Reform of the Common Agricultural Policy*". Centre for European Policy Studies, Brussels (<http://www.ceps.eu/files/book/1718.pdf>); and **Cunha, A. and Swinbank, A.** (2011) "*An Inside View of the CAP Reform Process. Explaining the McSharry, Agenda 2000 and Fischler Reforms*", Oxford University Press.

In fact, the new direct payments appears to be composed of **four main components**: basic income component, green component, additional income payments in "*areas with specific natural constraints*" and a limited voluntary coupled support. The first three can be considered representative of the general objectives of **redesign and better target** support to make it more consistent with its economic (basic income support), environmental (provision of environmental public goods) and territorial functions (payments in area with specific natural constraints).

TABLE 2. An example of reallocation of resources through "multifunctional" composite index based on "UAA; UAA under Natura 2000 and value of agricultural output" but not wholly compatible with the budgetary redistributive objectives proposed in the Communication

MS	Current DP net ceilings (€)	(UAA) Utilizable Agricultural Area (ha)	% UAA under NATURA 2000	% UAA in LFAs	"output of the agricultural industry" (€) (average 2007-09)	New DP net ceiling (€)	Var. % DP net ceiling
Greece	2.149.504.650	4.076.230	18,90%	78,10%	10.428.660	1.256.931.991	-41,52%
Denmark	964.289.710	2.662.590	4,80%	1,10%	8.944.477	571.202.953	-40,76%
Cyprus	53.485.120	146.000	1,50%	60,20%	645.590	34.963.464	-34,63%
Malta	5.500.880	10.330	5,60%	100,00%	131.833	3.648.092	-33,68%
Belgium	569.022.300	1.374.430	7,30%	18,00%	7.286.423	388.020.968	-31,81%
Hungary	1.313.059.440	4.228.580	15,20%	20,70%	6.800.277	957.910.789	-27,05%
Ireland	1.255.520.520	4.139.240	9,20%	77,50%	5.705.493	1.007.654.787	-19,74%
Czech Republic	903.004.340	3.518.070	6,60%	49,20%	4.275.007	729.632.570	-19,20%
France	7.846.884.600	27.476.930	8,80%	44,50%	65.917.167	6.647.392.178	-15,29%
Germany	5.329.676.940	16.931.900	12,00%	52,00%	46.203.137	4.529.640.562	-15,01%
Italy	4.117.444.590	12.744.200	10,70%	50,80%	45.435.933	3.593.815.223	-12,72%
Sweden	708.487.500	3.118.000	4,40%	48,50%	4.842.137	644.600.086	-9,02%
Luxembourg	34.699.160	130.880	11,10%	95,30%	313.963	32.596.603	-6,06%
Bulgaria	814.294.650	3.050.740	22,70%	27,60%	3.861.897	765.200.815	-6,03%
United Kingdom	3.336.100.000	16.130.490	3,40%	52,80%	23.306.970	3.310.063.027	-0,78%
Finland	539.172.720	2.292.290	0,90%	95,10%	4.081.467	539.512.308	0,06%
Netherlands	830.608.560	1.914.330	5,00%	11,90%	23.359.713	838.103.014	0,90%
Slovenia	144.255.840	488.770	22,20%	92,40%	1.121.060	154.239.844	6,92%
Austria	715.553.250	3.189.110	11,70%	64,10%	6.417.457	820.046.173	14,60%
Poland	3.043.938.400	15.477.190	12,00%	62,50%	19.673.257	3.719.689.899	22,20%
Slovakia	385.674.210	1.936.620	16,40%	61,30%	2.076.510	480.946.236	24,70%
Lithuania	379.840.500	2.648.950	3,80%	57,10%	2.081.923	509.498.665	34,13%
Spain	4.947.555.730	24.892.520	17,40%	81,70%	40.557.240	7.074.280.148	42,99%
Romania	1.780.139.500	13.753.050	9,80%	28,90%	15.542.647	2.782.611.749	56,31%
Estonia	101.158.200	906.830	6,00%	40,90%	645.413	165.024.658	63,14%
Portugal	565.828.450	3.472.940	18,40%	92,40%	6.822.987	1.052.639.151	86,04%
Latvia	146.480.340	1.773.840	6,70%	73,50%	985.433	371.314.146	153,49%
UE-27	42.981.180.100	172.485.050	11,10%	54,40%	357.464.070	42.981.180.100	0,00%

Source: Data processed by the authors (see Annex III)

It is possible to see how the changes in the direct payments national ceilings arising from applying this composite index **may not be deemed consistent** with the objective of finding a more equitable distribution of direct payments. Some Member States, where average payment per hectare is currently below the EU average, would see cuts in their current budget, in some cases significantly.

Three potentially more consistent possible scenarios are instead explored in more detail: the first uses the **potential eligible surface area** (§ II. Scenario A); the second and third (§ II Scenarios B & C) composite indices with **different weights assigned to the indicators used** (surface area, labour and output).

2.2.3. Reallocation of resources through an algorithmic process

The analysis used a simple algorithm designed to make the distribution of the current Member States average direct payment per hectare more balanced.

The **algorithm** has been built under the following two conditions:

- **Minimize the variability** of the Member States average direct payment per hectare.
- **Limiting gains and losses** of individual Member State.

Under these two conditions it was set **two algorithms**:

- the first one designed to **minimize the variance** ⁽¹³⁾ of the current distribution of MS direct payments per hectare (§ II. Scenario D1);
- the second designed to allow that **each Member State should receive at least 80% of the EU current average direct payments**, setting, in this way an hypothetical, "*minimum share of the EU-wide average level of direct payments*" (§ II. Scenario D2).

On this basis the analysis shows the variations in the Member States national ceilings.

Details on the methodology can be found in Annex 2.

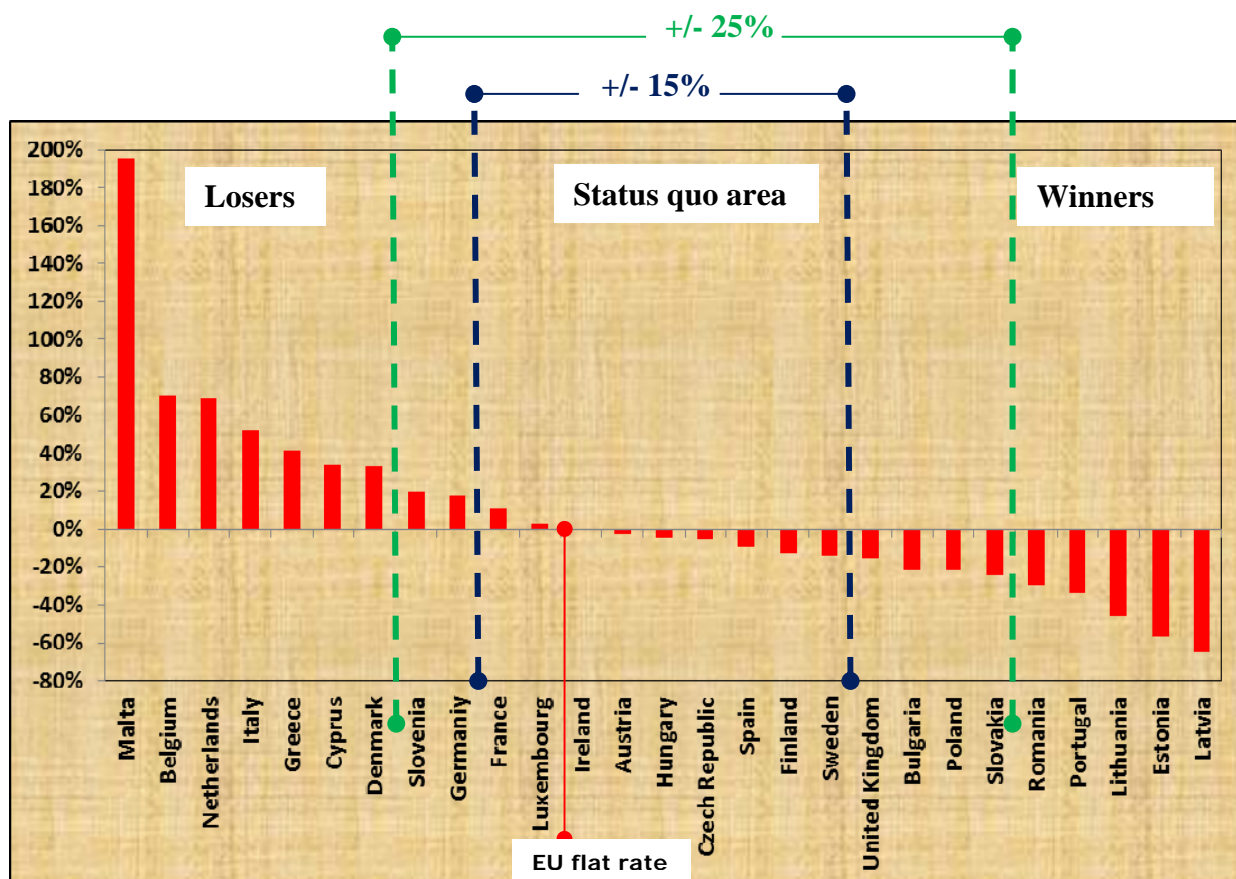
¹³ The *variance* provides a measure of how different the values of a variable are (in this case payment per hectare) i.e. the measure of how far these values are from the mean of the distribution.

II. POSSIBLE SCENARIOS FOR REALLOCATING THE DIRECT PAYMENT BUDGET BETWEEN MEMBER STATES

Scenario A

Indicator: potential eligible surface (ha)

Figure 2. Scenario A



Source: Data processed by the authors (see Annex III)

- **A1** – status quo area +/- 15% from the EU 27 flat rate:

Winners: United Kingdom, Bulgaria, Poland, Slovakia, Romania, Portugal, Lithuania, Estonia, Latvia.

Losers: Malta, Belgium, Netherlands, Italy, Greece, Cyprus, Denmark, Slovenia, Germany

Status quo area: France, Luxembourg, Ireland, Austria, Hungary, Czech Republic, Spain, Finland, Sweden

Details: Table A1 Annex 1

- **A2** – status quo area +/- 25% from the EU 27 flat rate:

Winners: Romania, Portugal, Lithuania, Estonia, Latvia.

Losers: Malta, Belgium, Netherlands, Italy, Greece, Cyprus, Denmark.

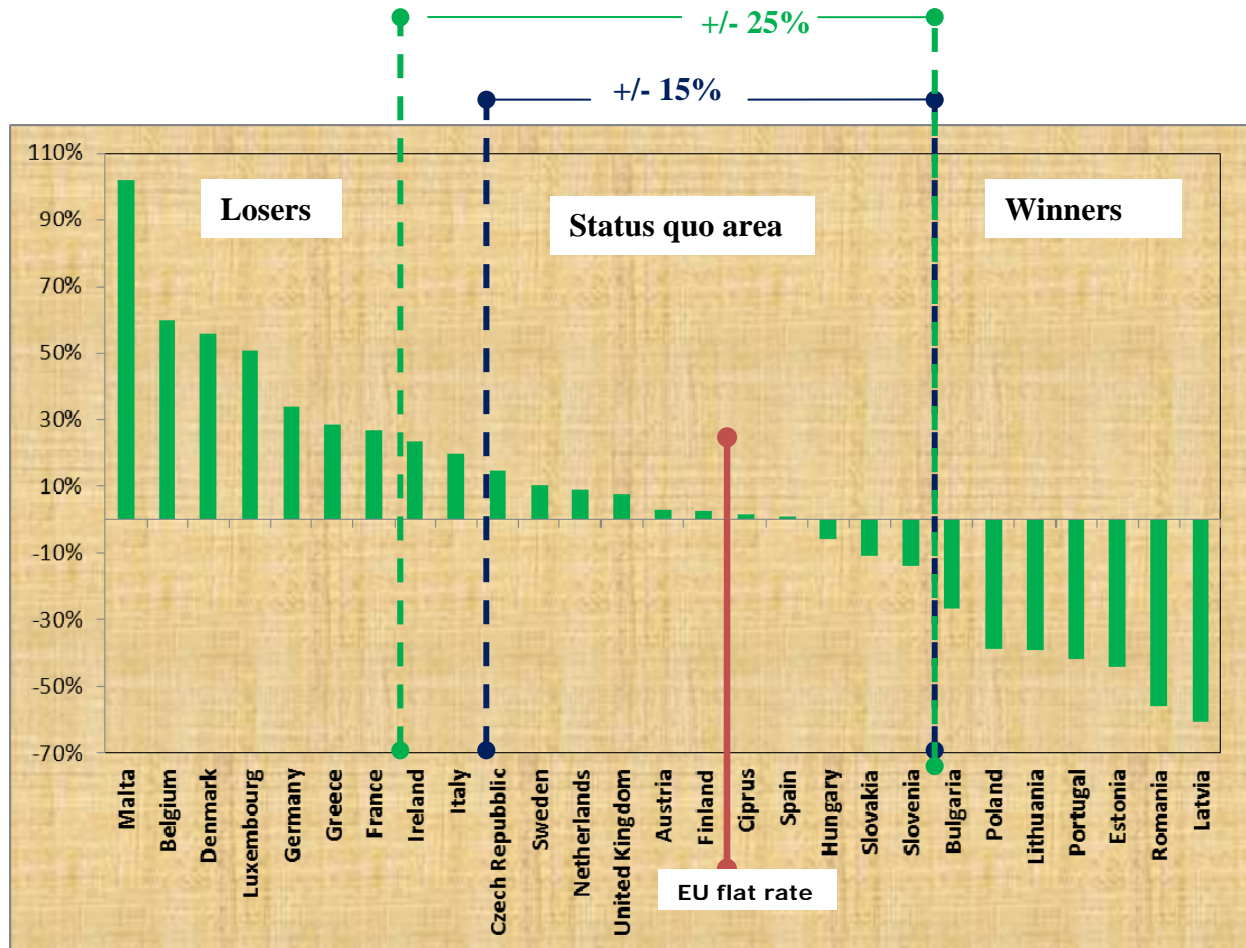
Status quo area: United Kingdom, Bulgaria, Poland, Slovakia, Slovenia, Germany, France, Luxembourg, Ireland, Austria, Hungary, Czech Republic, Spain, Finland, Sweden.

Details: Table A2 Annex 1

Scenario B

Indicator: composite index (surface - 60% - labour - 30% - output - 10% -)

Figure 3. Scenario B



Source: Data processed by the authors (see Annex III)

● **B1** – status quo area +/- 15% from the EU 27 flat rate:

Winners: Latvia, Romania, Estonia, Portugal, Lithuania, Poland, Bulgaria.

Losers: Malta, Belgium, Denmark, Luxembourg, Germany, Greece, France, Ireland, Italy.

Status quo area: Czech Republic, Sweden, Netherlands, United Kingdom, Austria, Finland, Cyprus, Spain, Hungary, Slovakia, Slovenia.

Details: Table B1 Annex 1

● **B2** – status quo area +/- 25% from the EU 27 flat rate:

Winners: Latvia, Romania, Estonia, Portugal, Lithuania, Poland, Bulgaria

Losers: Malta, Belgium, Denmark, Luxembourg, Germany, Greece, France,

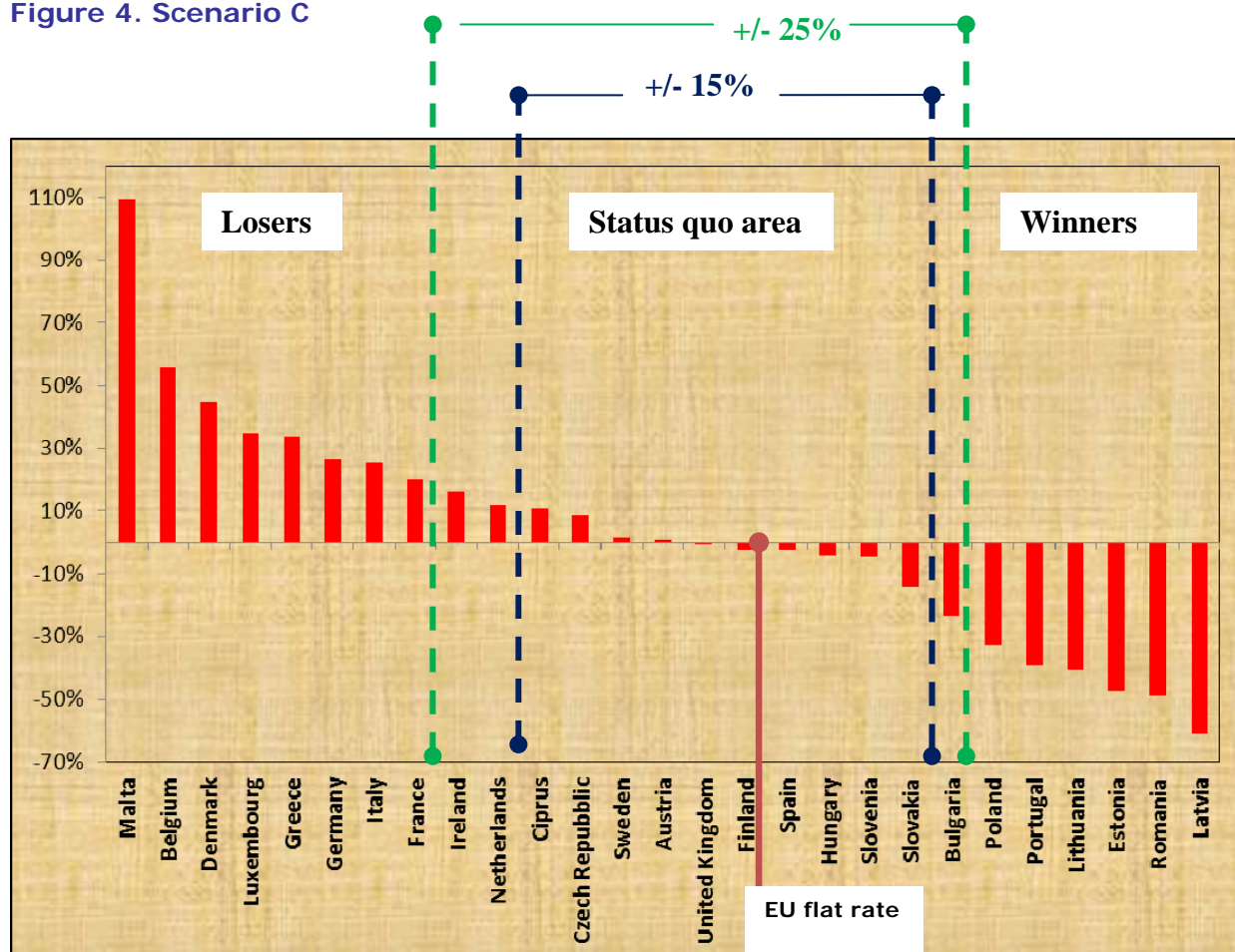
Status quo area: Czech Republic, Sweden, Netherlands, United Kingdom, Austria, Finland, Cyprus, Spain, Hungary, Slovakia, Slovenia, Ireland, Italy

Details: Table B2 Annex 1

Scenario C

Indicator: composite index (surface - 70% - labour - 20% - output - 10% -)

Figure 4. Scenario C



Source: Data processed by the authors (see Annex III)

- **C1** – status quo area +/- 15% from the EU 27 flat rate:

Winners: Latvia, Romania, Estonia, Lithuania, Portugal, Poland, Bulgaria

Losers: Malta, Belgium, Denmark, Luxembourg, Greece, Germany, Italy, France, Ireland, Netherlands,

Status quo area: Cyprus, Czech Republic, Sweden, Austria, UK, Finland, Spain, Hungary, Slovenia, Slovakia

Details: Table C1 Annex 1

- **C2** – status quo area +/- 25% from the EU 27 flat rate:

Winners: Latvia, Romania, Estonia, Lithuania, Portugal, Poland.

Losers: Malta, Belgium, Denmark, Luxembourg, Greece, Germany, Italy, France.

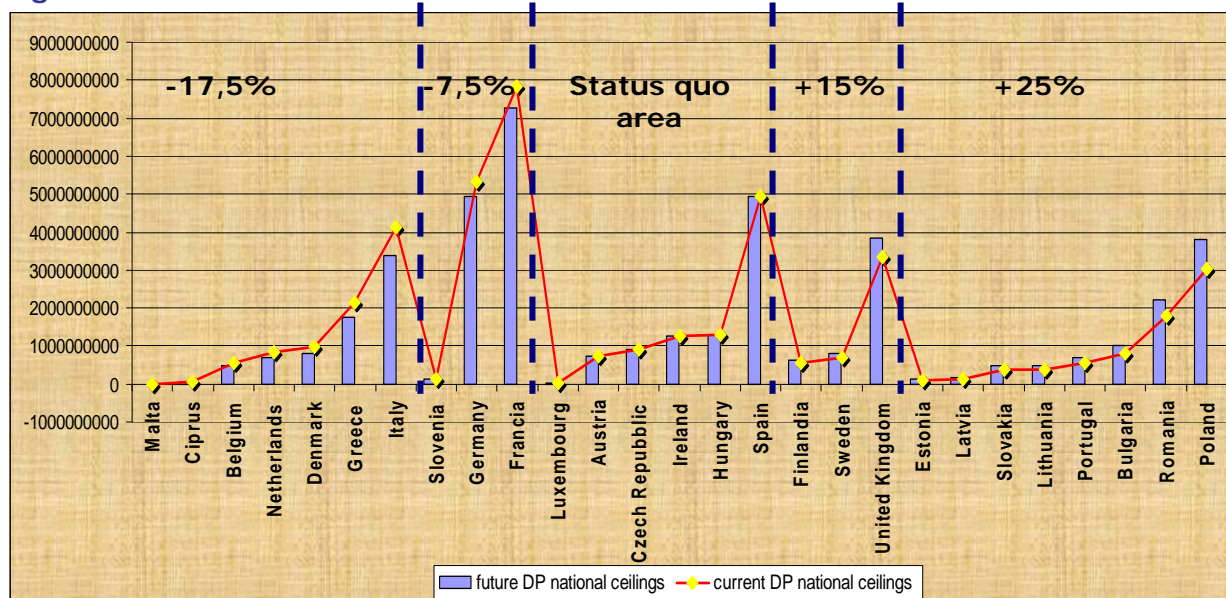
Status quo area: Bulgaria, Ireland, Netherlands, Cyprus, Czech Republic, Sweden, Austria, United Kingdom, Finland, Spain, Hungary, Slovenia, Slovakia.

Details: Table C2 Annex 1

Scenario D (Reallocation of resources through algorithmic process)

D1: Rebalancing payments per hectare in EU Member States minimizing the "variance"

Figure 5. Scenario D1



Source: Data processed by the authors (see Annex III)

Winners: **Latvia, Romania, Estonia, Lithuania, Portugal, Poland, Bulgaria, Slovakia** (+ 25% of the current average payment per hectare); **United Kingdom, Sweden, Finland** (+ 15% of the current average payment per hectare).

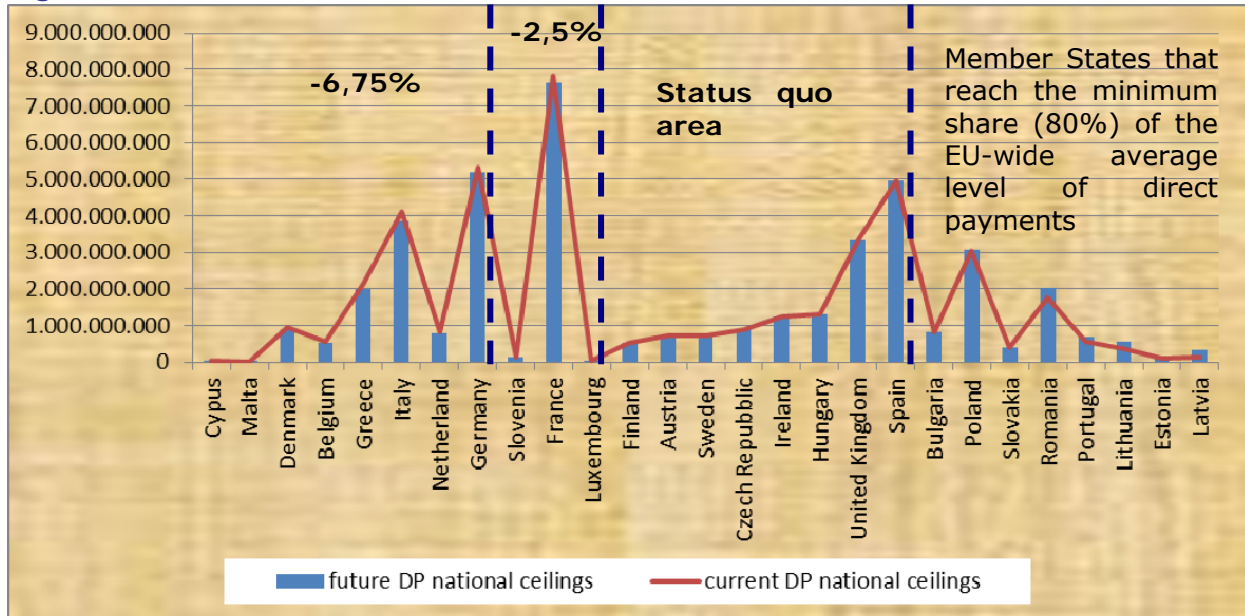
Losers: **Malta, Cyprus, Belgium, Denmark, Greece, Italy, Netherlands** (- 17,5% of the current average payment per hectare); **Slovenia, Germany, France** (- 7,5% of the current average payment per hectare).

Status quo area: **Luxembourg, Austria, Ireland, Spain, Czech Republic, Hungary.**

Details: Table D1 Annex 1

D2: Rebalancing payments per hectare in EU Member States allowing allow each Member State should receive at least 80% of the EU current average direct payments

Figure 6. Scenario D2



Source: Data processed by the authors (see Annex III)

Winners: Latvia, Romania, Estonia, Lithuania, Portugal, Poland, Bulgaria, Slovakia that reach the minimum share (80%) of the EU-wide average level of direct payments.

Losers: Malta, Belgium, Denmark, Greece, Italy, Netherlands, Cyprus (- 6,75% of the current average payment per hectare); France, Germany, Slovenia (- 2,5% of the current average payment per hectare);

Status quo area: Luxembourg, Austria, Ireland, Finland, Sweden, Czech Republic, Hungary, United Kingdom, Spain

Details: Table D2 Annex 1

III. CONCLUDING COMMENTS

The Commission's Communication introduced the notion of limiting the potential gains and losses from redistributing direct payments with reference to the need for pragmatism in the search for a "*politically feasible*" solution⁽¹⁴⁾, thereby recognising the complexity of the EU decision-making process and the problem of balancing all the vested interests. Clearly, the methodology applied to limit the potential gains and losses at a Member State level will be highly subjective in nature, with the final outcome being a purely political matter.

In these circumstances, it is impossible to provide empirically-based, reasoned recommendations on which approach or scenario is optimal. This paper, therefore, merely provides a further analytical contribution to the debate in order to help **facilitate the legislative work of the European Parliament relating to the next reform of the CAP.**

The motivation for redistributing direct payments is described in the Commission's Communication as to make them "more understandable to the taxpayer"⁽¹⁵⁾ than the current pattern of allocations which are largely an historic artefact of previous CAP reforms. By seeking to constrain the potential redistribution, for the purposes of political pragmatism, it is possible that the Commission will weaken the logic and legitimacy it was originally seeking.

As described above, it will also be very hard to isolate decisions on how much each Member State will receive within the first pillar of the CAP from the negotiation on the allocation of second pillar funds⁽¹⁶⁾. Indeed, when the Commission's Communication introduced the prospect of using "*objective criteria*" for the future allocation of future Pillar 2 funds, it echoed the earlier reference with respect to Pillar 1 by suggesting the need to limit "*significant disruption from the current system*"⁽¹⁷⁾.

It is, therefore, conceivable that a similar methodological approach to limiting the gains and losses within the Pillar 2 budget will be required and further analysis of this pragmatic nature, showing the potential implications of such a development, will be another important component of the evidence base on which the policy decisions can be taken.

¹⁴ EC Communication (COM (2010) 672, 18 November 2010: "*The CAP towards 2020: Meeting the food, natural resources and territorial challenges of the future*", p. 8. (http://ec.europa.eu/agriculture/cap-post-2013/Communication/index_en.htm)

¹⁵ EC Communication (COM (2010) 672, 18 November 2010: "*The CAP towards 2020: Meeting the food, natural resources and territorial challenges of the future*". (http://ec.europa.eu/agriculture/cap-post-2013/Communication/index_en.htm), Section 6.1, p 8

¹⁶ It is also hard to conceive of a coherent argument that would advocate the need to move away from the historic basis of allocating Pillar 1 payments between Member States, while still maintaining the current historic allocation criteria for the Pillar 2 budget was appropriate for the future.

¹⁷ EC Communication (COM (2010) 672, 18 November 2010: "*The CAP towards 2020: Meeting the food, natural resources and territorial challenges of the future*", p. 11. (http://ec.europa.eu/agriculture/cap-post-2013/Communication/index_en.htm)

ANNEX 1 – DETAILED OUTPUTS OF THE SCENARIOS PROPOSED

TABLE A1 - Scenario A1 Status quo area +/- 15% from the EU 27 flat rate								
MS	DP net ceilings (€)	Potentially eligible area in 2009 (ha)	Current average direct payments in MS	deviation from the EU flat rate	new DP net ceiling	Var. % from current DP net ceiling	Var. (€ from current DP net ceiling)	New average direct payments (€/ha)
Malta	5.500.880,0	6.861,5	801,7	195,3%	2.142.335,4	-61,1%	-3.358.544,6	312,2
Belgium	569.022.300,0	1.230.584,6	462,4	70,3%	384.218.820,5	-32,5%	-184.803.479,5	312,2
Netherlands	830.608.560,0	1.810.788,2	458,7	69,0%	565.372.701,9	-31,9%	-265.235.858,1	312,2
Italy	4.117.444.590,0	9.979.264,6	412,6	52,0%	3.115.772.306,1	-24,3%	-1.001.672.283,9	312,2
Greece	2.149.504.650,0	5.591.843,5	384,4	41,6%	1.745.911.328,9	-18,8%	-403.593.321,1	312,2
Cyprus	53.485.120,0	147.220,3	363,3	33,8%	45.965.792,2	-14,1%	-7.519.327,8	312,2
Denmark	964.289.710,0	2.674.125,7	360,6	32,8%	834.927.918,1	-13,4%	-129.361.791,9	312,2
Slovenia	144.255.840,0	444.000,7	324,9	19,7%	138.627.970,7	-3,9%	-5.627.869,3	312,2
Germany	5.329.676.940,0	16.733.679,6	318,5	17,3%	5.224.667.071,3	-2,0%	-105.009.868,7	312,2
France	7.846.884.600,0	26.138.856,1	300,2	10,6%	7.846.884.600,0	0,0%	0,0	300,2
Luxembourg	34.699.160,0	123.969,8	279,9	3,1%	34.699.160,0	0,0%	0,0	279,9
Ireland	1.255.520.520,0	4.638.051,4	270,7	-0,3%	1.255.520.520,0	0,0%	0,0	270,7
Austria	715.553.250,0	2.710.429,0	264,0	-2,8%	715.553.250,0	0,0%	0,0	264,0
Hungary	1.313.059.440,0	5.089.377,7	258,0	-5,0%	1.313.059.440,0	0,0%	0,0	258,0
Czech Republic	903.004.340,0	3.512.268,9	257,1	-5,3%	903.004.340,0	0,0%	0,0	257,1
Spain	4.947.555.730,0	20.136.572,0	245,7	-9,5%	4.947.555.730,0	0,0%	0,0	245,7
Finland	539.172.720,0	2.277.873,8	236,7	-12,8%	539.172.720,0	0,0%	0,0	236,7
Sweden	708.487.500,0	3.032.908,8	233,6	-14,0%	708.487.500,0	0,0%	0,0	233,6
United Kingdom	3.336.100.000,0	14.580.856,6	228,8	-15,7%	3.364.893.308,6	0,9%	28.793.308,6	230,8
Bulgaria	814.294.650,0	3.805.115,2	214,0	-21,2%	878.124.443,9	7,8%	63.829.793,9	230,8
Poland	3.043.938.400,0	14.224.011,2	214,0	-21,2%	3.282.542.399,9	7,8%	238.603.999,9	230,8
Slovakia	385.674.210,0	1.880.420,3	205,1	-24,5%	433.953.501,2	12,5%	48.279.291,2	230,8
Romania	1.780.139.500,0	9.364.226,7	190,1	-30,0%	2.161.026.928,0	21,4%	380.887.428,0	230,8
Portugal	565.828.450,0	3.161.052,8	179,0	-34,1%	729.491.116,5	28,9%	163.662.666,5	230,8
Lithuania	379.840.500,0	2.614.181,0	145,3	-46,5%	603.286.925,2	58,8%	223.446.425,2	230,8
Estonia	101.158.200,0	856.547,0	118,1	-56,5%	197.669.404,4	95,4%	96.511.204,4	230,8
Latvia	146.480.340,0	1.545.151,3	94,8	-65,1%	356.581.871,9	143,4%	210.101.531,9	230,8
UE-27	42.981.180.100,0	158.310.238,3	271,5	0,0%	42.329.113.404,7	-1,5%	-652.066.695,3	267,4

TABLE A2 - Scenario A2 Status quo area +/- 25% from the EU 27 flat rate								
MS	DP net ceilings (€)	Potentially eligible area in 2009 (ha)	Current average direct payments in MS	deviation from the EU flat rate	new DP net ceiling	Var. % from current DP net ceiling	Var. (€) from current DP net ceiling	New average direct payments (€/ha)
Malta	5.500.880,0	6.861,5	801,7	195,3%	2.328.625,4	-57,7%	-3.172.254,6	339,4
Belgium	569.022.300,0	1.230.584,6	462,4	70,3%	417.629.152,7	-26,6%	-151.393.147,3	339,4
Netherlands	830.608.560,0	1.810.788,2	458,7	69,0%	614.535.545,5	-26,0%	-216.073.014,5	339,4
Italy	4.117.444.590,0	9.979.264,6	412,6	52,0%	3.386.709.028,4	-17,7%	-730.735.561,6	339,4
Greece	2.149.504.650,0	5.591.843,5	384,4	41,6%	1.897.729.705,3	-11,7%	-251.774.944,7	339,4
Cyprus	53.485.120,0	147.220,3	363,3	33,8%	49.962.817,7	-6,6%	-3.522.302,3	339,4
Denmark	964.289.710,0	2.674.125,7	360,6	32,8%	907.530.345,7	-5,9%	-56.759.364,3	339,4
Slovenia	144.255.840,0	444.000,7	324,9	19,7%	144.255.840,0	0,0%	0,0	324,9
Germany	5.329.676.940,0	16.733.679,6	318,5	17,3%	5.329.676.940,0	0,0%	0,0	318,5
France	7.846.884.600,0	26.138.856,1	300,2	10,6%	7.846.884.600,0	0,0%	0,0	300,2
Luxembourg	34.699.160,0	123.969,8	279,9	3,1%	34.699.160,0	0,0%	0,0	279,9
Ireland	1.255.520.520,0	4.638.051,4	270,7	-0,3%	1.255.520.520,0	0,0%	0,0	270,7
Austria	715.553.250,0	2.710.429,0	264,0	-2,8%	715.553.250,0	0,0%	0,0	264,0
Hungary	1.313.059.440,0	5.089.377,7	258,0	-5,0%	1.313.059.440,0	0,0%	0,0	258,0
Czech Republic	903.004.340,0	3.512.268,9	257,1	-5,3%	903.004.340,0	0,0%	0,0	257,1
Spain	4.947.555.730,0	20.136.572,0	245,7	-9,5%	4.947.555.730,0	0,0%	0,0	245,7
Finland	539.172.720,0	2.277.873,8	236,7	-12,8%	539.172.720,0	0,0%	0,0	236,7
Sweden	708.487.500,0	3.032.908,8	233,6	-14,0%	708.487.500,0	0,0%	0,0	233,6
United Kingdom	3.336.100.000,0	14.580.856,6	228,8	-15,7%	3.336.100.000,0	0,0%	0,0	228,8
Bulgaria	814.294.650,0	3.805.115,2	214,0	-21,2%	814.294.650,0	0,0%	0,0	214,0
Poland	3.043.938.400,0	14.224.011,2	214,0	-21,2%	3.043.938.400,0	0,0%	0,0	214,0
Slovakia	385.674.210,0	1.880.420,3	205,1	-24,5%	385.674.210,0	0,0%	0,0	205,1
Romania	1.780.139.500,0	9.364.226,7	190,1	-30,0%	1.906.788.465,9	7,1%	126.648.965,9	203,6
Portugal	565.828.450,0	3.161.052,8	179,0	-34,1%	643.668.632,2	13,8%	77.840.182,2	203,6
Lithuania	379.840.500,0	2.614.181,0	145,3	-46,5%	532.311.992,8	40,1%	152.471.492,8	203,6
Estonia	101.158.200,0	856.547,0	118,1	-56,5%	174.414.180,4	72,4%	73.255.980,4	203,6
Latvia	146.480.340,0	1.545.151,3	94,8	-65,1%	314.631.063,4	114,8%	168.150.723,4	203,6
UE-27	42.981.180.100,0	158.310.238,3	271,5	0,0%	42.166.116.855,5	-1,9%	-815.063.244,5	266,4

Source: Data processed by the authors (see Annex III)

TABLE B1 - Scenario B1 Status quo area +/- 15% from the EU 27 flat rate based on composite index (surface - 60% - labour - 30% - output - 10% -)							
MS	DP net ceilings (€)	average direct payments in MS on the basis of composite index	deviation from the EU flat rate on the basis of composite index	new DP net ceiling	Var. % from current DP net ceiling	Var. (€) from current DP net ceiling	New average direct payments (€/ha)
Malta	5.500.880	15.276.637.119,2	101,9%	3.133.701,0	-43,0%	-2.367.179,0	456,7
Belgium	569.022.300	12.094.348.946,1	59,8%	409.449.111,3	-28,0%	-159.573.188,7	332,7
Denmark	964.289.710	11.797.614.725,6	55,9%	711.322.365,1	-26,2%	-252.967.344,9	266,0
Luxembourg	34.699.160	11.395.907.192,7	50,6%	26.498.616,4	-23,6%	-8.200.543,6	213,8
Germany	5.329.676.940	10.125.500.876,6	33,8%	4.580.759.701,8	-14,1%	-748.917.238,2	273,7
Greece	2.149.504.650	9.732.571.291,1	28,6%	1.922.046.702,6	-10,6%	-227.457.947,4	343,7
France	7.846.884.600	9.594.972.937,4	26,8%	7.117.158.739,2	-9,3%	-729.725.860,8	272,3
Ireland	1.255.520.520	9.354.518.155,3	23,6%	1.168.034.131,7	-7,0%	-87.486.388,3	251,8
Italy	4.117.444.590	9.042.391.259,7	19,5%	3.962.758.528,9	-3,8%	-154.686.061,1	397,1
Czech Republic	903.004.340	8.683.254.300,2	14,7%	903.004.340,0	0,0%	0,0	257,1
Sweden	708.487.500	8.360.502.086,9	10,5%	708.487.500,0	0,0%	0,0	233,6
Netherlands	830.608.560	8.230.841.869,6	8,8%	830.608.560,0	0,0%	0,0	458,7
United Kingdom	3.336.100.000	8.167.361.945,3	7,9%	3.336.100.000,0	0,0%	0,0	228,8
Austria	715.553.250	7.775.253.117,4	2,7%	715.553.250,0	0,0%	0,0	264,0
Finland	539.172.720	7.761.587.517,3	2,6%	539.172.720,0	0,0%	0,0	236,7
Cyprus	53.485.120	7.696.865.774,9	1,7%	53.485.120,0	0,0%	0,0	363,3
Spain	4.947.555.730	7.652.224.278,9	1,1%	4.947.555.730,0	0,0%	0,0	245,7
Hungary	1.313.059.440	7.136.123.497,8	-5,7%	1.313.059.440,0	0,0%	0,0	258,0
Slovakia	385.674.210	6.745.946.292,3	-10,9%	385.674.210,0	0,0%	0,0	205,1
Slovenia	144.255.840	6.503.376.855,4	-14,1%	144.255.840,0	0,0%	0,0	324,9
Bulgaria	814.294.650	5.552.457.092,1	-26,6%	943.345.096,7	15,8%	129.050.446,7	247,9
Poland	3.043.938.400	4.639.190.292,6	-38,7%	4.220.538.813,3	38,7%	1.176.600.413,3	296,7
Lithuania	379.840.500	4.614.201.110,1	-39,0%	529.515.863,8	39,4%	149.675.363,8	202,6
Portugal	565.828.450	4.392.804.983,8	-42,0%	828.546.873,4	46,4%	262.718.423,4	262,1
Estonia	101.158.200	4.251.851.960,5	-43,8%	153.037.260,9	51,3%	51.879.060,9	178,7
Romania	1.780.139.500	3.359.473.958,9	-55,6%	3.408.450.444,0	91,5%	1.628.310.944,0	364,0
Latvia	146.480.340	3.000.465.592,5	-60,4%	314.025.499,1	114,4%	167.545.159,1	203,2
UE-27	42.981.180.100,0	7.567.550.022,8	0,0%	44.175.578.159,3	2,8%	1.194.398.059,3	279,0

Source: Data processed by the authors (see Annex III)

Tab B2 - Scenario B2 status quo area +/- 25% from the EU 27 flat based on composite index (surface - 60% - labour - 30% - output - 10% -)							
MS	DP net ceilings (€)	average direct payments in MS on the basis of composite index	deviation from the EU flat rate on the basis of composite index	new DP net ceiling	Var. % from current DP net ceiling	Var. (€) from current DP net ceiling	New average direct payments (€/ha)
Malta	5.500.880	15.276.637.119,2	101,9%	3.406.196,7	-38,1%	-2.094.683,3	496,4
Belgium	569.022.300	12.094.348.946,1	59,8%	445.053.381,8	-21,8%	-123.968.918,2	361,7
Denmark	964.289.710	11.797.614.725,6	55,9%	773.176.483,8	-19,8%	-191.113.226,2	289,1
Luxembourg	34.699.160	11.395.907.192,7	50,6%	28.802.843,9	-17,0%	-5.896.316,1	232,3
Germany	5.329.676.940	10.125.500.876,6	33,8%	4.979.086.632,4	-6,6%	-350.590.307,6	297,5
Greece	2.149.504.650	9.732.571.291,1	28,6%	2.089.181.198,5	-2,8%	-60.323.451,5	373,6
France	7.846.884.600	9.594.972.937,4	26,8%	7.736.042.107,9	-1,4%	-110.842.492,1	296,0
Ireland	1.255.520.520	9.354.518.155,3	23,6%	1.255.520.520,0	0,0%	0,0	270,7
Italy	4.117.444.590	9.042.391.259,7	19,5%	4.117.444.590,0	0,0%	0,0	412,6
Czech Republic	903.004.340	8.683.254.300,2	14,7%	903.004.340,0	0,0%	0,0	257,1
Sweden	708.487.500	8.360.502.086,9	10,5%	708.487.500,0	0,0%	0,0	233,6
Netherlands	830.608.560	8.230.841.869,6	8,8%	830.608.560,0	0,0%	0,0	458,7
United Kingdom	3.336.100.000	8.167.361.945,3	7,9%	3.336.100.000,0	0,0%	0,0	228,8
Austria	715.553.250	7.775.253.117,4	2,7%	715.553.250,0	0,0%	0,0	264,0
Finland	539.172.720	7.761.587.517,3	2,6%	539.172.720,0	0,0%	0,0	236,7
Cyprus	53.485.120	7.696.865.774,9	1,7%	53.485.120,0	0,0%	0,0	363,3
Spain	4.947.555.730	7.652.224.278,9	1,1%	4.947.555.730,0	0,0%	0,0	245,7
Hungary	1.313.059.440	7.136.123.497,8	-5,7%	1.313.059.440,0	0,0%	0,0	258,0
Slovakia	385.674.210	6.745.946.292,3	-10,9%	385.674.210,0	0,0%	0,0	205,1
Slovenia	144.255.840	6.503.376.855,4	-14,1%	144.255.840,0	0,0%	0,0	324,9
Bulgaria	814.294.650	5.552.457.092,1	-26,6%	832.363.320,6	2,2%	18.068.670,6	218,7
Poland	3.043.938.400	4.639.190.292,6	-38,7%	3.724.004.835,2	22,3%	680.066.435,2	261,8
Lithuania	379.840.500	4.614.201.110,1	-39,0%	467.219.879,9	23,0%	87.379.379,9	178,7
Portugal	565.828.450	4.392.804.983,8	-42,0%	731.070.770,6	29,2%	165.242.320,6	231,3
Estonia	101.158.200	4.251.851.960,5	-43,8%	135.032.877,3	33,5%	33.874.677,3	157,6
Romania	1.780.139.500	3.359.473.958,9	-55,6%	3.007.456.274,2	68,9%	1.227.316.774,2	321,2
Latvia	146.480.340	3.000.465.592,5	-60,4%	277.081.322,8	89,2%	130.600.982,8	179,3
UE-27	42.981.180.100,0	7.567.550.022,8	0,0%	44.478.899.945,6	3,5%	1.497.719.845,6	281,0

Source: Data processed by the authors (see Annex III)

TABLE C1 - Scenario C1 status quo area +/- 15% from the EU 27 flat rate based on composite index (surface - 70% - labour - 20% - output - 10% -)							
MS	DP net ceilings (€)	average direct payments in MS on the basis of composite index	deviation from the EU flat rate on the basis of composite index	new DP net ceiling	Var. % from current DP net ceiling	Var. (€) from current DP net ceiling	New average direct payments (€/ha)
Malta	5.500.880	15.573.592.140,8	109,5%	3.019.970,2	-45,1%	-2.480.909,8	440,1
Belgium	569.022.300	11.603.341.376,0	56,1%	419.281.305,1	-26,3%	-149.740.994,9	340,7
Denmark	964.289.710	10.764.963.077,3	44,8%	765.868.608,9	-20,6%	-198.421.101,1	286,4
Luxembourg	34.699.160	10.009.481.553,8	34,6%	29.639.212,4	-14,6%	-5.059.947,6	239,1
Greece	2.149.504.650	9.925.133.671,1	33,5%	1.851.660.259,5	-13,9%	-297.844.390,5	331,1
Germany	5.329.676.940	9.411.750.738,5	26,6%	4.841.609.400,0	-9,2%	-488.067.540,0	289,3
Italy	4.117.444.590	9.336.470.139,3	25,6%	3.770.546.770,6	-8,4%	-346.897.819,4	377,8
France	7.846.884.600	8.931.718.901,3	20,1%	7.511.410.563,4	-4,3%	-335.474.036,6	287,4
Ireland	1.255.520.520	8.630.905.152,7	16,1%	1.243.731.839,6	-0,9%	-11.788.680,4	268,2
Netherlands	830.608.560	8.326.481.440,5	12,0%	830.608.560,0	0,0%	0,0	458,7
Cyprus	53.485.120	8.223.046.029,9	10,6%	53.485.120,0	0,0%	0,0	363,3
Czech Republic	903.004.340	8.086.275.803,7	8,8%	903.004.340,0	0,0%	0,0	257,1
Sweden	708.487.500	7.567.606.232,3	1,8%	708.487.500,0	0,0%	0,0	233,6
Austria	715.553.250	7.486.792.520,7	0,7%	715.553.250,0	0,0%	0,0	264,0
United Kingdom	3.336.100.000	7.391.112.768,7	-0,6%	3.336.100.000,0	0,0%	0,0	228,8
Finland	539.172.720	7.248.493.364,2	-2,5%	539.172.720,0	0,0%	0,0	236,7
Spain	4.947.555.730	7.247.993.393,2	-2,5%	4.947.555.730,0	0,0%	0,0	245,7
Hungary	1.313.059.440	7.120.907.994,8	-4,2%	1.313.059.440,0	0,0%	0,0	258,0
Slovenia	144.255.840	7.103.586.821,3	-4,5%	144.255.840,0	0,0%	0,0	324,9
Slovakia	385.674.210	6.363.386.545,8	-14,4%	385.674.210,0	0,0%	0,0	205,1
Bulgaria	814.294.650	5.683.853.457,2	-23,5%	905.355.357,5	11,2%	91.060.707,5	237,9
Poland	3.043.938.400	4.985.642.467,4	-32,9%	3.858.292.024,0	26,8%	814.353.624,0	271,3
Portugal	565.828.450	4.509.560.356,5	-39,3%	792.922.867,5	40,1%	227.094.417,5	250,8
Lithuania	379.840.500	4.427.018.247,8	-40,5%	542.213.496,5	42,7%	162.372.996,5	207,4
Estonia	101.158.200	3.909.372.698,3	-47,4%	163.521.319,9	61,6%	62.363.119,9	190,9
Romania	1.780.139.500	3.799.734.783,6	-48,9%	2.960.609.437,5	66,3%	1.180.469.937,5	316,2
Latvia	146.480.340	2.892.667.632,8	-61,1%	320.008.246,4	118,5%	173.527.906,4	207,1
UE-27	42.981.180.100,0	7.434.665.627,9	0,0%	43.856.647.389,0	2,0%	875.467.289,0	440,1

Source: Data processed by the authors (see Annex III)

TABLE C2 - Scenario C2 Status quo area +/- 25% from the EU 27 flat rate based on composite index (surface - 70% - labour - 20% - output - 10% -)							
MS	DP net ceilings (€)	average direct payments in MS on the basis of composite index	deviation from the EU flat rate on the basis of composite index	new DP net ceiling	Var. % from current DP net ceiling	Var. (€) from current DP net ceiling	New average direct payments (€/ha)
Malta	5.500.880	15.573.592.140,8	109,5%	3.282.576,3	-40,3%	-2.218.303,7	478,4
Belgium	569.022.300	11.603.341.376,0	56,1%	455.740.549,0	-19,9%	-113.281.751,0	370,3
Denmark	964.289.710	10.764.963.077,3	44,8%	832.465.879,2	-13,7%	-131.823.830,8	311,3
Luxembourg	34.699.160	10.009.481.553,8	34,6%	32.216.535,2	-7,2%	-2.482.624,8	259,9
Greece	2.149.504.650	9.925.133.671,1	33,5%	2.012.674.195,1	-6,4%	-136.830.454,9	359,9
Germany	5.329.676.940	9.411.750.738,5	26,6%	5.262.618.913,1	-1,3%	-67.058.026,9	314,5
Italy	4.117.444.590	9.336.470.139,3	25,6%	4.098.420.402,9	-0,5%	-19.024.187,1	410,7
France	7.846.884.600	8.931.718.901,3	20,1%	7.846.884.600,0	0,0%	0,0	300,2
Ireland	1.255.520.520	8.630.905.152,7	16,1%	1.255.520.520,0	0,0%	0,0	270,7
Netherlands	830.608.560	8.326.481.440,5	12,0%	830.608.560,0	0,0%	0,0	458,7
Cyprus	53.485.120	8.223.046.029,9	10,6%	53.485.120,0	0,0%	0,0	363,3
Czech Republic	903.004.340	8.086.275.803,7	8,8%	903.004.340,0	0,0%	0,0	257,1
Sweden	708.487.500	7.567.606.232,3	1,8%	708.487.500,0	0,0%	0,0	233,6
Austria	715.553.250	7.486.792.520,7	0,7%	715.553.250,0	0,0%	0,0	264,0
United Kingdom	3.336.100.000	7.391.112.768,7	-0,6%	3.336.100.000,0	0,0%	0,0	228,8
Finland	539.172.720	7.248.493.364,2	-2,5%	539.172.720,0	0,0%	0,0	236,7
Spain	4.947.555.730	7.247.993.393,2	-2,5%	4.947.555.730,0	0,0%	0,0	245,7
Hungary	1.313.059.440	7.120.907.994,8	-4,2%	1.313.059.440,0	0,0%	0,0	258,0
Slovenia	144.255.840	7.103.586.821,3	-4,5%	144.255.840,0	0,0%	0,0	324,9
Slovakia	385.674.210	6.363.386.545,8	-14,4%	385.674.210,0	0,0%	0,0	205,1
Bulgaria	814.294.650	5.683.853.457,2	-23,5%	814.294.650,0	0,0%	0,0	214,0
Poland	3.043.938.400	4.985.642.467,4	-32,9%	3.404.375.315,3	11,8%	360.436.915,3	239,3
Portugal	565.828.450	4.509.560.356,5	-39,3%	699.637.824,3	23,6%	133.809.374,3	221,3
Lithuania	379.840.500	4.427.018.247,8	-40,5%	478.423.673,3	26,0%	98.583.173,3	183,0
Estonia	101.158.200	3.909.372.698,3	-47,4%	144.283.517,6	42,6%	43.125.317,6	168,4
Romania	1.780.139.500	3.799.734.783,6	-48,9%	2.612.302.444,8	46,7%	832.162.944,8	279,0
Latvia	146.480.340	2.892.667.632,8	-61,1%	282.360.217,4	92,8%	135.879.877,4	182,7
UE-27	42.981.180.100,0	7.434.665.627,9	0,0%	44.112.458.523,6	2,6%	1.131.278.423,6	278,6

TABLE D1 - Scenario D1 Reallocation of resources through algorithmic process					
MS	DP net ceilings (€)	Potentially eligible area in 2009 (ha)	New average direct payments in MS (€/ha)	new DP net ceiling	Var. % from current DP net ceiling
Netherlands	830.608.560	1.810.788,23	378,4275	685.252.062	-17,50%
Cyprus	53.485.120	147.220,26	299,7225	44.125.224	-17,50%
Belgium	569.022.300	1.230.584,56	381,48	469.443.398	-17,50%
Greece	2.149.504.650	5.591.843,52	317,13	1.773.341.336	-17,50%
Italy	4.117.444.590	9.979.264,64	340,395	3.396.891.787	-17,50%
Malta	5.500.880	6.861,52	661,4025	4.538.226	-17,50%
Denmark	964.289.710	2.674.125,65	297,495	795.539.011	-17,50%
Slovenia	144.255.840	444.000,74	300,5325	133.436.652	-7,50%
Germany	5.329.676.940	16.733.679,56	294,6125	4.929.951.170	-7,50%
France	7.846.884.600	26.138.856,10	277,685	7.258.368.255	-7,50%
Luxembourg	34.699.160	123.969,85	279,9	34.699.160	0,00%
Austria	715.553.250	2.710.428,98	264	715.553.250	0,00%
Czech Republic	903.004.340	3.512.268,92	257,1	903.004.340	0,00%
Ireland	1.255.520.520	4.638.051,42	270,7	1.255.520.520	0,00%
Hungary	1.313.059.440	5.089.377,67	258	1.313.059.440	0,00%
Spain	4.947.555.730	20.136.571,96	245,7	4.947.555.730	0,00%
United Kingdom	3.336.100.000	14.580.856,64	263,12	3.836.515.000	15,00%
Finland	539.172.720	2.277.873,76	272,205	620.048.628	15,00%
Sweden	708.487.500	3.032.908,82	268,64	814.760.625	15,00%
Lithuania	379.840.500	2.614.181,00	181,625	474.800.625	25,00%
Latvia	146.480.340	1.545.151,27	118,5	183.100.425	25,00%
Slovakia	385.674.210	1.880.420,33	256,375	482.092.763	25,00%
Portugal	565.828.450	3.161.052,79	223,75	707.285.563	25,00%
Bulgaria	814.294.650	3.805.115,19	267,5	1.017.868.313	25,00%
Romania	1.780.139.500	9.364.226,72	237,625	2.225.174.375	25,00%
Poland	3.043.938.400	14.224.011,21	267,5	3.804.923.000	25,00%
Estonia	101.158.200	856.546,99	147,625	126.447.750	25,00%
UE-27	53.485.120,00	158.310.238,3	271,4996867	685.252.062	0,0%

Source: Data processed by the authors (see Annex III)

TABLE D2 - Scenario D2 Reallocation of resources through algorithmic process					
MS	DP net ceilings (€)	Potentially eligible area in 2009 (ha)	New average direct payments in MS (€/ha)	new DP net ceiling	Var. % from current DP net ceiling
Cyprus	53.485.120	147.220,26	338,78	49.874.874	-6,75%
Malta	5.500.880	6.861,52	747,59	5.129.571	-6,75%
Denmark	964.289.710	2.674.125,65	336,26	899.200.155	-6,75%
Belgium	569.022.300	1.230.584,56	431,19	530.613.295	-6,75%
Greece	2.149.504.650	5.591.843,52	358,45	2.004.413.086	-6,75%
Italy	4.117.444.590	9.979.264,64	384,75	3.839.517.080	-6,75%
Netherland	830.608.560	1.810.788,23	427,74	774.542.482	-6,75%
Germany	5.329.676.940	16.733.679,56	310,54	5.196.435.017	-2,50%
Slovenia	144.255.840	444.000,74	316,78	140.649.444	-2,50%
France	7.846.884.600	26.138.856,10	292,70	7.650.712.485	-2,50%
Luxembourg	34.699.160	123.969,85	279,90	34.699.160	0,00%
Finland	539.172.720	2.277.873,76	236,70	539.172.720	0,00%
Austria	715.553.250	2.710.428,98	264,00	715.553.250	0,00%
Sweden	708.487.500	3.032.908,82	233,60	708.487.500	0,00%
Czech Republic	903.004.340	3.512.268,92	257,10	903.004.340	0,00%
Ireland	1.255.520.520	4.638.051,42	270,70	1.255.520.520	0,00%
Hungary	1.313.059.440	5.089.377,67	258,00	1.313.059.440	0,00%
United Kingdom	3.336.100.000	14.580.856,64	228,80	3.336.100.000	0,00%
Spain	4.947.555.730	20.136.571,96	245,70	4.947.555.730	0,00%
Bulgaria	814.294.650	3.805.115,19	216,96	825.557.791	1,38%
Poland	3.043.938.400	14.224.011,21	216,96	3.086.041.473	1,38%
Slovakia	385.674.210	1.880.420,33	216,96	407.975.995	5,78%
Romania	1.780.139.500	9.364.226,72	216,96	2.031.662.630	14,13%
Portugal	565.828.450	3.161.052,79	216,96	685.822.014	21,21%
Lithuania	379.840.500	2.614.181,00	216,96	567.172.711	49,32%
Estonia	101.158.200	856.546,99	216,96	185.836.436	83,71%
Latvia	146.480.340	1.545.151,27	216,96	335.236.019	128,86%
UE-27	53.485.120,00	158.310.238,3	271,4996867	42.981.180.100,0	0,0%

MS that reach the 80% of the current EU flat rate

Source: Data processed by the authors (see Annex III)

ANNEX 2 – Methodology used for Reallocation of resources through algorithmic process

▪ Scenario D1

1. The objective is to minimize the distance between the current MS direct payments average and the EU flat rate, limiting the magnitude of changes in individual MS budget devoted to the direct payments.
2. The small number of observations that make up the distribution and iterative testing suggests dividing the distribution into **six intervals**, three **above the EU flat rate** (from 0 to 10%- from 10% to 20% and over 20%) and other three identical intervals below.
3. For each of the intervals the logarithmic model identifies the optimal percentage change to be allocated to individual values.
4. The result is that in the first interval (+/- 10% from the EU flat rate) the average payments included remain unchanged. In the second interval (+/- 20% from the EU flat rate) the individual Member States average payments included will vary by +15% for MS that are under the EU flat rate (winner) and by - 7,5% for MS above. In the third interval the individual Member States average payments included will vary by + 25% for MS that are under the EU flat rate (winner) and by - 17,5% for MS above.
5. The algorithm

Min $\sigma^2_i \{x_i\} \ i \in [1; 27]$

s.t.

if $x_i [-10% < \mu < +10%] \Rightarrow x_i \text{ invariant}$

if $x_i [-20% < \mu < 20%] \Rightarrow x_i \pm \Psi$

if $x_i [> \pm 20% \mu] \Rightarrow x_i \pm \zeta$

Total budget $_{t+1} = \text{total budget}_t$

Where μ is the flat rate (271.20); ($\Psi = +15\%$ se $x_i < 10\%$ of flat rate and up to 20%; -7.5% if $x_i > 10\%$ of flat rate and up to +20%); ($\zeta = +25\%$ if $x_i < 20\%$ of flat rate ; -17.5% if $x_i > 20\%$ of flat rate)

▪ **Scenario D2**

1. The first objective is to guarantee that each Member State below the EU flat rate should receive at least 80% of the EU current average direct payments.
2. The second is to recover the resources needed for reach the firs objective from the MS budget currently above average, allocating the cuts necessary to offset the increases of MS reaching the 80% of the EU flat rate, **in proportion to the deviation from EU flat rate.**
3. The best solution seems to be using **three intervals** above the EU flat rate (10%, from 10 to 20% and over 20%)
4. The result is: no changes in the first interval, cut of 2,5% of the current average for the MS including in the second interval, cut of 6,75% of the current average for the MS including in the third interval
5. The algorithm

Min $\sigma_i^2 \{x_i\} \ i \in [1; 27]$

s.t.

if $x_i [80\% < \mu < +10\%] \Rightarrow x_i$ invariant;

if $x_i [+10\% < \mu < +20\%] \Rightarrow x_i - \Psi$

if $x_i [>+20\% \mu] \Rightarrow x_i + \zeta$

Total budget $_{t+1} =$ total budget $_t$

Where μ is the flat rate (271.20), $\Psi = 2.5\%$ and $\zeta = 6.75\%$

ANNEX III – Table of the variable used in the scenarios proposed

Indicator	Source	Data robustness	Related CAP objectives	Comments
Eligible surface	Potentially eligible area in 2009 - IACS	High	Economic, social, territorial and environmental	It is consistent with the proposal in the Commission's Communication for a basic component of direct payments that will be granted through a basic decoupled direct payment, providing a uniform level of obligatory support to all farmers in a Member State (or in a region), based on transferable entitlements that need to be activated by matching them with eligible agricultural land . Furthermore, it is a general proxy of the fulfillment of cross compliance requirements
Utilisable agricultural area	Eurostat 2007	High	Economic, social, territorial and environmental	As above, but considering the entire amount of land managed by European farmers.
Natura 2000 area	EU Natura 2000 databases and GIS 2010	High	Environmental	It is one of the possible proxy of the environmental performance of European agriculture. It represent, however, only a part of the environmental values embedded in European agriculture.
LFAs area	DG Agri 2010	High	Economic, social territorial and environmental	It is consistent with the the proposed new system of direct payments envisages an additional income support to all farmers in areas with specific natural constraints , in the form of an area-based payment .
Agricultural labour	Labour survey Eurostat 2009	Moderate	Economic and social	The limitations of this indicator, in part representative of the economic and social differences of European agriculture, are the strong annual variability and contradiction inherent in the use of this indicator (which hampers innovation and incentivises resource (labour) inefficiency).
Output agricultural industry	Eurostat (average 2007-08- 09)	High	Economic	It is linked to the basic income component. The major concern affecting this indicator is the linked with the old vision of the CAP , oriented to support production volumes.

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