Agricultural expenditure in the future European Union budget

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1. Introduction

The link between the European Union (EU) budget and further reform of the Common Agricultural Policy (CAP) is central and the issue of net financial balances due to the CAP, although its instruments have undergone significant reforms since 1993, remains a bone of contention in European politics.

The economic literature[1] has long questioned the adequacy of EU policies to address the challenges facing Europe and judged the current allocation of financial resources as being at odds with the future of Europe. Considerable evaluation and discussion is going on in academic debate (VV.AA., 2009; Ecorys, 2008), within the Commission (European Commission, 2007, 2008, 2010a and 2010b), in Member States[2], and in many think tanks (ECNS *et al*., 2009; Cooper *et al*., 2009). These efforts address the general issue of the economic and political foundations of the EU budget and reconsider the question of the appropriate government level in the EU for various public policies. A number of proposals for a new budget framework have been formulated to alleviate the confusion of allocational and distributional problems affecting current decision making. The CAP has few advocates, even as it stands today after several reforms. Nonetheless, the tremendous resilience of the CAP to reform is impressive.

In order to shed some light on this resilience, we analyse the budget issues from a positive point of view by assuming net financial balances are a major force governing the politics of the EU (Mrak and Rant, 2010). With its lion's share of the budget, the CAP cannot avoid scrutiny and is bound to change. In principle, there are two opposite ways this could happen. New allocations across budget items could be decided in the next Financial perspectives (FP)): this would change the CAP outlays maintaining the present agricultural policies. In this case, distributional effects across countries would take place changing the size, but not the sign of the net balances due to the CAP. Alternatively, there could be a deep reform of the first and second pillar policies maintaining total agricultural expenditure. If this were the case, distributional effects across countries would be the consequences of changes in the net balances due to CAP reform.

The main objective of the paper is to assess the likelihood of the intuitive and widely held expectation that something is going to happen to CAP expenditure as a consequence of the debate on the next FP. We are going to do this under the assumption that national interests are the driving forces behind EU budget and CAP reform negotiations. First, we quantify national interests in FP negotiations by computing the net balances resulting from the 2007-2013 negotiations. We then assess the implications of a reduction in the CAP budget allocation by introducing the concepts of isobudget and isobalance functions.

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[1] See, for example, Sapir *et al*. (2003).
[2] See Clasper and Thurston (2010) for an overall review.

2. The EU budget debate

The EU budget experienced a sudden acceleration with the start of the CAP in the Sixties and then the establishment of structural funds in the Seventies. The budget also grew as a consequence of the progressive enlargements of the EU, especially after the accession of the Eastern European countries. Today, the EU-27 features a budget of more than EUR 114 billion) aimed at a political project that has significantly widened its original policy set.

Based on the current rules (Art. 311 of the Lisbon Treaty), the Union provides itself with the necessary means to achieve its goals and enforce its policies. The budget is funded by "own resources", one of the most distinctive elements of the process of European integration. Own resources include three components: the so-called traditional own resources (TOR), originating from the custom duties and tariffs applied at the common borders, a common national contribution corresponding to a share (0.3%) of the value added tax and a "residual" contribution expressed in terms of the gross national product (GNP) that over the years has become the most relevant funding source (European Commission, 2008). In the current budget plan (2007-13), the own resources ceiling as a percentage of GNP was set at 1.24%. The growing absolute dimension of national contributions to the EU budget based on the GNP led the wealthiest Member states to formulate the principle of "*juste retour*" and the Fontainebleu Agreement (1984) states the right of any member State bearing an excessive financial burden weighted to its relative prosperity to call for a correction[3].

Traditionally, the imbalances of national positions *vis à vis* the EU budget have been measured through the net budgetary balance (NBB), that is, the difference between the contribution of each Member State to the EU budget and the expenses that the EU supplies in their favour. The NBB is a very simple indicator that synthesizes the differences between the financial costs and benefits accrued to each Member State as a consequence of EU membership. Partial NBB can also be calculated, with respect to single items or even single policies. Accordingly, partial NBBs highlight the items in which each Member State is a net contributor or beneficiary. On the other hand, the use of the NBB concept has often been criticized since it is by construction unable to catch all the immaterial and non-financial benefits and costs deriving from joining the EU (Nuñez Ferrer, 2007; Gros, 2008; de la Fuente, Doménech and Rant, 2008; Pietras, 2008).

The budget review process officially began in September 2007 at a time when expiry of the current financial framework was still quite a long way off (European Commission, 2007). This should have helped to keep the debate independent of current political negotiation (Panichi, 2009). Indeed, after the start of public discussion with all the actors leading to a summary paper by the EU Commission, the contents of which are rather generic and vague (Grybauskaitè, 2008), the debate became rather stagnant and unable to focus on meaningful elements.

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[3] The most relevant application of the principle of "juste retour" is represented by the British rebate. However, the establishment of a general principle has paved the way to many other temporary or permanent corrections

More recently, the Commission tried to bring the topic back to the centre of the stage with two more documents: Europe 2020 (European Commission 2010a) and a Communication to the European Parliament and the Council (European Commission 2010b) in which the Commission illustrates the main goals of the EU after 2013. Although the positions expressed by the EU Commission aim to obtain a large consensus, Member States hold quite different views on FP negotiations. An analysis of the national positions is carried out by Clasper and Thurston (2010) who divide Member States into five groups according to their position on the budget. Quite interestingly, the positions assumed by Member States do not necessarily match what would have been expected as far as the sign of their net balance is concerned.

3. Isobudget and isobalance

3.1 Total and partial net balances

There are two main issues in the debate on the EU budget: the absolute size of the budget and the allocation of expenditure across policies. These two issues are tightly related in a complex political game in which any attempt to review the budget has usually been blocked by crossed vetoes.

It is quite likely that NBBs are going to play a crucial role in the debate on budget review and the FP after 2013 as has been the case in previous FP negotiations. Even if NBBs undoubtedly represent an oversimplification of the Member States' objective function, they are the most immediately visible result of negotiations and provide useful and readily available proxies for national interests. We compute total and partial net budgetary balances (NBB) for each member state in the 2007-2008 period.

The total NBB of a Member State i can be expressed as:

$$NBB_i = E_i - C_i \tag{4.1}$$

where:
E_i is total allocated expenditure to member state i from the EU budget, expressed in payments,
C_i are total contributions of member state i to the EU budget.
Partial NBBs are calculated by decomposing the total NBB of each Member State into expected net cash flows from individual budget items. We define the partial NBB of a Member State i under item j as:

$$NBB_{i,j} = \left(\frac{E_{i,j}}{E_{EU,j}} - \frac{C_i}{C_{EU}} \right) E_{EU,j} \tag{4.2}$$

where:
$E_{i,j}$ is total expenditure allocated to member state i under item j,
$E_{EU,j}$ is total expenditure under issue j at EU level,
C_{EU} are total contributions of all member states.
Our approach for computing each element in (4.1) and (4.2) is described at length in De Filippis and Sardone (2010). Partial NBBs of each individual Member State sum up to the Member State's total NBB whereas the sum of partial NBBs for a particular issue across Member States equals zero.

Mrak and Rant (2010) point out that partial NBBs of EU Member States have two interesting properties that make them attractive as a measure of individual Member State's national interest in the underlying FPN item:

1. First, for each Member State, a partial NBB measures net contribution of the underlying item to the total NBB of that Member State, expressed in million euros. Positive partial NBBs improve whereas negative partial NBBs deteriorate a Member States' total NBB.

2. Second, for individual issues, partial NBBs measure net redistribution of funds across Member States, expressed in million euros. Member States with positive partial NBBs are net recipients whereas Member States with negative partial NBBs are net contributors under a specific item.

3.2 Isobalance and isobudget

For each EU member, the *isobalance* curve identifies all combinations of two budget items that keep its NBB constant. We are going to consider budget allocation between Natural Resources (NR) and Other expenditure (O). Consequently, starting from (4.2), the isobalance country i can be written as:

$$E_{EU,NR} = \frac{NBB_i}{\left(\dfrac{E_{i,NR}}{E_{EU,NR}} - \dfrac{C_i}{C_{EU}}\right)} - \frac{\left(\dfrac{E_{i,O}}{E_{EU,O}} - \dfrac{C_i}{C_{EU}}\right)}{\left(\dfrac{E_{i,NR}}{E_{EU,NR}} - \dfrac{C_i}{C_{EU}}\right)} E_{i,O} = \alpha_i - \beta_i E_{EU,O}$$

(4.3).

The isobalance can be usefully compared with a more traditional isoexpenditure constraint at EU level, i.e., the *isobudget* curve defined as follows:

$$E_{EU,NR} = E_{EU} - E_{EU,O}$$

(4.4).

In (4.4), the angular coefficient is obviously 1 as in any budget constraint. The β coefficient in (4.3) is more interesting since it summarizes the distributive impact of the CAP *vis à vis* all other budget expenditure (Table 1).

The sign of this coefficient determines whether natural resources and other budget sections are complements or substitutes. A negative coefficient implies a positively sloped isobalance curve suggesting that the two partial NBBs are complements: they must move in the same direction in order to keep the balance unchanged. It also means that the two NBBs have opposite signs. As a matter of fact, several countries in this typology (Austria, Denmark, Finland, France and Ireland) record positive agricultural NBBs whereas the opposite is true for Cyprus, Luxembourg, Malta, Romania and Slovenia (Table 2). For these Member States, any reduction (increase) in natural resources expenditure should be matched by a more or less than proportional reduction (increase) in other budget expenditure.

A positive β coefficient implies a negatively sloped isobalance curve suggesting that the two partial NBBs are substitutes: they must move in opposite directions in order to keep the balance unchanged. It also means that the two NBBs share the same sign: negative for Belgium, Germany, Italy, Luxembourg, Netherlands, Sweden, United Kingdom, Cyprus,

Malta, Slovenia and Romania and positive for Greece, Portugal, Spain, Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland, Slovakia and Bulgaria. Consequently, for these countries, any reduction (increase) in natural resources expenditure should be matched by a more or less than proportional increase (reduction) in other budget expenditure.

The value of the intercept with the y-axis (α) is negative for net overall contributors to the budget with a positive agricultural NBB (Austria, Denmark, France, Finland) and for net overall beneficiaries from the budget with a negative agricultural NBB (Malta, Romania and Slovenia). Conversely, it is positive for net overall beneficiaries from the budget with a positive agricultural partial NBB (Bulgaria, Czech Republic, Estonia, Greece, Hungary, Ireland, Latvia, Lithuania, Poland, Portugal, Slovakia, Spain) and for net overall contributors to the budget with a negative agricultural NBB (Belgium, Cyprus, Germany, Italy, Luxembourg, Netherlands, Sweden, United Kingdom).

According to the sign and value of the α and β parameters, we can distinguish four typologies of countries presented in Table 3.

The negative intercept ($\alpha < 0$) case includes Member States either with a positive agricultural net position that reduces the overall contribution to the EU budget or with a negative agricultural net position that reduces the overall transfer from the EU budget. A negative intercept implies that the two partial budget positions must have opposite signs ruling out the possibility of negatively sloped isobalance lines. Consequently, any changes in the agricultural expenditure for these countries should be matched by changes in the same direction of the sum of the remaining budget section: these changes will be smaller or larger depending on the value of the β coefficient.

A positively sloped isobalance divides the expenditure space into two regions: countries with a positive agricultural net budget improve the overall budget position in the region above the isobalance curve whereas the opposite is true for countries with a negative agricultural net budget position. Moreover, any positively sloped isobalance cannot have an intercept which is larger than actual expenditure on natural resources (i.e., the intercept on the y-axis of the isobudget curve). This is obviously true for the isobalances with a negative intercept whereas for $\alpha > 0$ we get:

$$\alpha = E_{EU,NR} + \beta E_{EU,O} < E_{EU} \qquad (4.5)$$

since we know that $\beta < 0$.

Downward sloping isobalances result from positive β coefficients. This implies a positive intercept ($\alpha > 0$) with a value which is larger than the overall EU expenditure if $\beta > 1$. In these cases, any changes in agricultural expenditure should be matched by changes in the opposite direction of the sum of the remaining budget sections: these changes may be smaller or larger depending on the absolute value of the β coefficients. Any negatively sloped isobalance divides the expenditure space into two regions: countries with a positive overall budget improve the balance in the region above the isobalance and worsen it below whereas the opposite is true for overall net contributors.

We use these results to sketch bargains which may take place in the next FP negotiations. Bargaining space is defined as the possible combinations of NR and Other expenditure

that will not worsen the overall NBBs of the countries considered. In this analysis, we also refer to 'sensitive countries' which are those with the highest or lowest opportunity cost (benefit) in terms of budget re-allocation since they are the ones that will define the largest or smallest possible size of bargaining space.

In order to keep national balances constant when NR expenditure and the sum of the other policies expenditures are *budget complements*, we have already pointed out that the cleavage between countries is based on agricultural rather than total NBBs. The most sensitive countries to budget changes are Romania among net agricultural contributors and Austria among net agricultural beneficiaries while the opposite is true for Cyprus and Ireland, respectively (Figure 1). It is worth noting in passing that the range variation in the isobalance parameters for the net agricultural contributors (solid isobalances) is larger than the range for the net agricultural beneficiaries (dotted isobalances).

If we look for an agreement which allows for an increase in the present budget constraint (i.e., above the isobudget line), bargaining space (marked as B in Figure 1) is only possible if the budget opportunity cost for agricultural net contributors of an agricultural expenditure increase is higher than the corresponding budget marginal benefit for agricultural net beneficiaries. Such a condition holds for a country such as Romania that may strike an agreement with the other group to increase both agricultural and non-agricultural expenditure.

The opposite is true for an EU budget reduction. In this scenario, the existence of bargaining space requires the budget marginal benefit for net contributors of an agricultural expenditure reduction to be lower than the corresponding budget opportunity cost for net beneficiaries. This implies that the country in the best position among the net agricultural contributors to reach an agreement with net beneficiaries would be Cyprus.

In order to keep national balances constant when when NR expenditure and the sum of the other policies expenditures are *budget substitutes*, the obvious cleavage is between overall net contributors (solid isobalance) and beneficiaries (dotted isobalance). The most sensitive countries are Sweden among net contributors and Czech Republic among net beneficiaries while the least sensitive are Belgium and Spain respectively (Figure 2).

In this case, a bargaining region (marked as B in Figure 2) does not seem to exist for larger agricultural expenditure since the highest budget opportunity cost (corresponding to the lowest negative slope) is registered for net beneficiaries (Czech Republic). Only the least sensitive countries, such as Belgium and Spain, would be able to strike an agreement leading to a reduction in the NR chapter which is more than compensated by increases in other chapters. In the same vein, an overall budget reduction could only be agreed upon if it implied an increase in non-agricultural expenditure compensated by a larger reduction in the NR chapter. It should however be noted that only the most sensitive countries such as Sweden and Czech Republic would be in a position to accept such an outcome.

5. Conclusions

This paper focuses on the link between CAP and the EU budget under the intuitive and widely held hypothesis that national interests dominate final decisions. The proxy for

national interests are net cash flows that EU member states expect to receive from individual issues under the next FP negotiations, referred to as partial net budgetary balances.

We use the isobudget and isobalance curves to carry out a comparison of national interests based on estimated partial net budgetary balances. More specifically, we discuss the implications of the 'net balances problem' for a possible reduction in the natural resources chapter allocation in the next financial perspectives. Although our results are still preliminary, we think that the isobalance concept may be quite useful in shedding some light on the driving forces behind negotiations for the EU's next financial perspective.

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Tables and Figures

Table 1 – Isobalance parameters for the EU Member States

	α	β
Belgium	58659.12	0.124
Denmark	-229781.39	-6.166
Germany	111710.23	1.281
Greece	143284.62	1.970
Spain	81081.77	0.613
France	-134791.70	-4.095
Ireland	35025.61	-0.391
Italy	98707.73	0.997
Luxemburg	44649.12	-0.182
Netherlands	99505.12	1.015
Austria	-573242.48	-13.657
Portugal	231054.98	3.884
Finland	-195819.01	-5.426
Sweden	144356.49	1.993
United Kingdom	107156.92	1.182
Czech Republic	611367.82	12.178
Estonia	331517.38	6.075
Cyprus	45028.45	-0.173
Latvia	266378.01	4.654
Lithuania	188846.51	2.963
Hungary	193617.50	3.067
Malta	-101785.79	-3.375
Poland	188290.57	2.951
Slovenia	-1278538.20	-29.038
Slovakia	313930.72	5.691
Bulgaria	370615.10	6.927
Romania	-30820454.17	-673.292

Table 2 – Partial and total net balances for the EU Member States

	Natural resources	Other expenditure	Total
Germany	-3844.05	-4262.17	-8106.22
United Kingdom	-1685.68	-1724.15	-3409.83
France	1244.41	-4410.80	-3166.38
Italy	-1523.39	-1315.18	-2838.57
Netherlands	-1467.84	-1289.31	-2757.15
Sweden	-453.33	-782.01	-1235.34
Belgium	-687.08	-73.74	-760.82
Denmark	126.83	-676.95	-550.12
Austria	42.08	-497.40	-455.32
Finland	61.29	-287.85	-226.56
Luxemburg	-91.38	14.36	-77.02
Cyprus	-14.00	2.10	-11.90
Malta	-15.51	45.30	29.79
Slovenia	-4.39	110.31	105.92
Estonia	36.59	192.42	229.01
Latvia	89.71	361.38	451.08
Bulgaria	72.43	434.31	506.74
Ireland	963.73	-326.53	637.20
Slovakia	114.37	563.38	677.75
Lithuania	230.67	591.64	822.31
Czech Republic	81.05	854.36	935.42
Romania	-1.89	1102.66	1100.77
Hungary	375.23	996.21	1371.44
Portugal	597.86	2009.79	2607.65
Spain	2209.44	1172.31	3381.75
Poland	1360.24	3474.59	4834.83
Greece	2182.62	3720.94	5903.56

Table 3 – Member State Typologies (overall net beneficiaries from the budget in bold type)

| $\alpha \setminus \beta$	POSITIVE	NEGATIVE
POSITIVE	Belgium, Germany, Italy, Luxembourg, Netherlands, Sweden, United Kingdom, Cyprus, Malta, Slovenia, Romania **Greece, Portugal, Spain, Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland, Slovakia, Bulgaria**	**Ireland,** Cyprus, Luxemburg
NEGATIVE	-	Austria, Denmark, Finland, France **Malta, Romania, Slovenia**

Figure 1 – CAP expenditure as budget complement
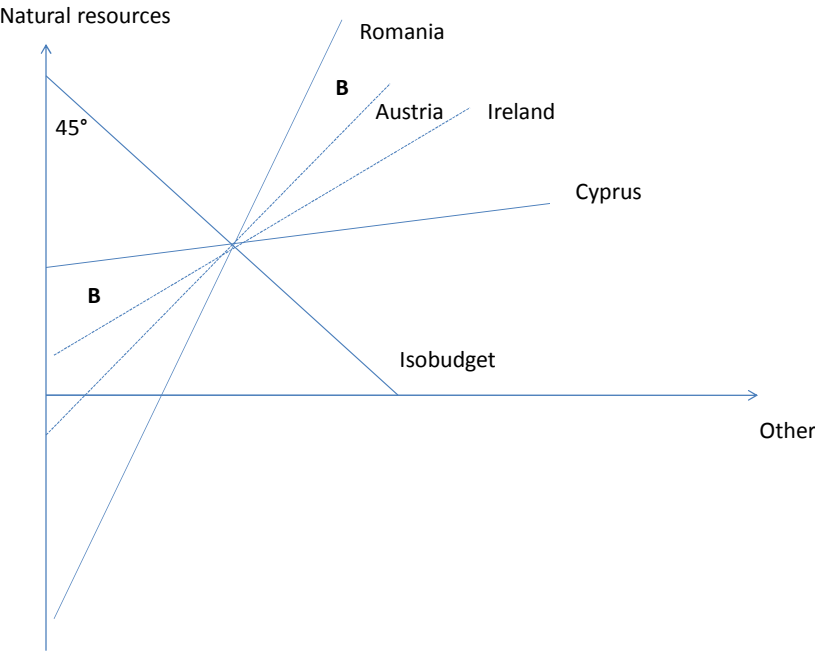
Figure 2 – CAP expenditure as budget substitute