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# Modulation of Direct Payments: A crossed analysis of incremental schemes

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**Abstract**— The progressive attempt and implementation of direct payment limitations since the 1992 CAP reform has developed a “modulation mechanism” aiming to transfer funds from market support and direct payment schemes (CAP first pillar) towards rural development measures (CAP second pillar). Under the 2007-2013 European financial perspectives, the annual 5% rate of modulation is expected to increase. The paper focuses on the financial impacts of four scenarios together with corresponding political and institutional feasibilities.

The paper imposes on itself three sound constraints: (i) expanding modulation should not jeopardise the future in-depth reform of the direct payment regime, (ii) modulation should be compulsory and consistent with rural development financial needs, and (iii) present direct payment per farm should not be capped or subject to complex and differentiated reduction rates. Then, the paper suggests adopting a dynamic and uniform modulation rate to be increased by 1 percent per year from 2009 and then by 2 percent during the final step reaching 10 percent in 2012 (2013 financial year). It would deliver certainty to farmers and contribute to an efficient use in European spending, with no need for a controversial equity instrument.

Direct payment reductions raise subsidiarity and budgetary issues which should be discussed within the European budget review. Considering the modulation mechanism as a related past-policy tool, renewed European decision making process and actors should outline from 2009 a new paradigm in direct payment regime. Since farmers are increasingly becoming entrepreneurs, the sooner an agreement on the CAP beyond 2013 is reached, the better.

**Keywords**— direct payments, rural development, European budget.

## I. INTRODUCTION

As the Common Agricultural Policy (CAP) follows a dynamic process, prompt adjustments are the purpose of the 2008 *health check*. The magnitude and modalities of cuts in direct payments seem to be one of the most political sensitive issues. There is still a deep budgetary imbalance between the first and the second pillar despite the current modulation mechanism which allows transfers of funds from the former towards the latter. Criticisms on distribution become all the more relevant when recipients of

first pillar subsidies are involved [1]. Ongoing transparency in payment beneficiaries exacerbates this allocation concern. Direct payments, even decoupled, still reflect historical policies that are inconsistent with modern society willingness [2]. Furthermore, in spite of expected world market evolution, European budgetary overruns may lead to mandatory direct payment cuts.

Thus, what are the political feasibility and financial effects of various modulation schemes within the current financial perspectives (2007-2013), if there is a need to transfer higher amounts of European funds from first to second pillar?

Considering earlier modulation development and current systemic constraints, financial outcomes from competing short-term incremental schemes are assessed and discussed.

## II. MATERIALS AND METHODS

### A. Modulation's progressive implementation

The modulation appeared in the CAP glossary with reflections leading to the 1992 CAP reform. In February 1991, considering inequity in support distribution, the Commission anticipated that modulation was likely to dominate discussions. The 1992 reform did not limit direct payments granted to cereal, oilseeds and protein crops via restrictions on set-aside compensation as initially envisaged [3]. Capping the total amount a farm may receive was also withdrawn. A maximal number of head was adopted for the main animal compensatory payments –i.e. special premium for male bovines and suckler cow premium.

The Agenda 2000 (1999 CAP reform) widened the 1992 shift. Partial compensation of agreed guaranteed price decreases impacted uniformly farm recipients. Again, the Commission failed in concretising an equity tool in direct payment allocation. However, it succeeded in implementing a modulation principle, formally defined as the transfer of funds from the first to the second CAP pillar. It was then voluntary, by up to 20%, and aimed at funding targeted rural development accompanying measures (the United Kingdom (UK) and France applied this provision even so presently only the UK and Portugal are allowed to do so).

Table 1 Compulsory percentage reduction in direct payments:  
Proposals vs. Adoption (2013 financial year)

EC1998: Communication from the European Commission regarding legislative proposals for Agenda 2000 (March 1998). It would introduce voluntary modulation and compulsory degressive modulation. The Agenda 2000 only implemented the former.

EC2002: First MTR of the Agenda 2000 proposals from the Commission (June 2002). In order to consider labour force, a 5 000 euro franchise would be applied for farms employing up to 2 full time annual working units. For each additional employed annual working unit, the franchise would be increased by some 3 000 euros.

EC2003: Second MTR of the Agenda 2000" proposals from the Commission (January 2003). The EC2003 figures sum the percentage of direct payment reduction in order to finance development measures (the modulation rate would be similar for all holdings receiving more than 5 000 euros per year: 6%) and the percentage of direct payment reduction in order to finance future reform on common market organizations (the reduction rate would differ for holdings receiving less or more than 50 000 euros: 6.5% applied to the former, 13% applied to the latter).

Payment size / scenario	EC1998	EC2002	EC2003	2003 Reform
$x \leq 5\,000\ \text{€}$	0%	0%	0%	0%
$5\,000\ \text{€} < x < 10\,000\ \text{€}$	0%	20%	12.5%	5%
$10\,000\ \text{€} \leq x < 50\,000\ \text{€}$	0%	20%	12.5%	5%
$50\,000\ \text{€} \leq x < 100\,000\ \text{€}$	0%	20%	19%	5%
$100\,000\ \text{€} \leq x < 200\,000\ \text{€}$	20%	20%	19%	5%
$200\,000\ \text{€} \leq x < 300\,000\ \text{€}$	25%	20%	19%	5%
$x \geq 300\,000\ \text{€}$	25%	100%	19%	5%

The Mid Term Review (MTR) of the Agenda 2000 made the modulation compulsory. Further to the MTR Commission proposals in June 2002 and January 2003, the Luxembourg agreement (2003 CAP reform) made a low down compromise between the two previous MTR proposals (cf. Table 1). It did not ceil direct payment a farm may receive. It introduced a uniformed flat modulation rate of 3% (in 2005), 4% (in 2006) and 5% (from 2007 to 2012), for all direct payments from the first pillar with a 5 000 euro franchise in order to privilege support for small farms. This discretionary threshold provision is in fact a lump amount applied to any direct payment recipient. The effective modulation rate is therefore inevitably lower than the nominal one [4].

### B. Institutional framework and opening debate

The Brussels European Council of 24-25 October 2002 established a budgetary ceiling for the whole 2007-2013 financial perspectives: CAP first pillar expenditures shall be kept below the 2006 amount (previously established by the Berlin European Council of 24-25.03.1999). Inflation shall give no more than a single one percentage annual increase. In order to respect such a constraint, a financial discipline mechanism shall reduce direct payments. Rural development expenditures of the 27 Member States are

exempted of any decrease as well as direct payments for the 12 new Member States (NMS) and outermost regions.

The inter-institutional agreement of 16 May 2006 on the 2007-2013 financial perspectives enabled Member States to set up their own national rural development programmes but stated far below the Commission financial proposal. Regarding current price estimations, funds allocated to the 2007-2013 second CAP pillar are fixed 21.7% below the Commission request, 11.6% if considering compulsory modulation and financial transfers from cotton and tobacco direct payment targeting (two compulsory sector-based financial reorientations agreed on April 2004).

### C. Scenarios' specification

Four extra-modulation scenarios are run assuming that during the 2008 CAP *health check* an agreement over increasing EU15 modulation within the 2007-2013 financial period is reached, with no cuts due to potential financial discipline mechanism or to a minimum annual payment -a lower limit being also put forward by the Commission. The extra-modulation would start by 2009 and then would be allocated to rural development funds from the 2010 financial year. There is systematically a 5 000 euro franchise. Indicative figures on the distribution of direct payments are by size of amount received for the 2005 financial year (paid from 16 October 2004 to 15 October 2005). Direct payment national amounts in 2010, 2011, 2012 and 2013 financial years are taken from the Council Regulation 319/2006 of 20 February 2006. Scenario-corresponding budgetary reallocations between Members States generated by the modulation mechanism are assessed with an algorithm optimisation model.

The EC2007 scenario considers the November 2007 communication from the Commission preparing for the *health check*: a dynamic and uniform modulation rate increasing by 2 % per year reaching 13% in 2012 plus an equity tool (cf. Table 2). The EP2008 scenario considers March 2008 Report from the European Parliament on the CAP *health check*, settled by Lutz Goepel: a uniform modulation rate status quo (5%) plus an equity tool. The EC2008 scenario considers the May 2008 Commission legislative proposals for the *health check*: the EC2007 uniform modulation rates plus a lower equity tool. An alternative scenario (ALT) considers an increase in modulation rate of 1% per year and 2% during the final step reaching thus 10% in 2012 without any equity tool [5].

Table 2 Compulsory percentage reduction in direct payments:  
Scenarios on *health check* output (2013 financial year)

EC2007: Communication from the EC (November 2008)  
EP2008: Report from the EP (March 2008)  
EC2008: Legislative proposals from the EC (May 2008)  
ALT: Alternative scenario (uniform modulation rate with 10% max)

Payment size / scenario	EC2007	EP2008	EC2008	ALT
$x \leq 5\ 000\text{€}$	0%	0%	0%	0%
$5\ 000\text{€} < x < 10\ 000\text{€}$	13%	5%	13%	10%
$10\ 000\text{€} \leq x < 50\ 000\text{€}$	13%	6%	13%	10%
$50\ 000\text{€} \leq x < 100\ 000\text{€}$	13%	6%	13%	10%
$100\ 000\text{€} \leq x < 200\ 000\text{€}$	23%	7%	16%	10%
$200\ 000\text{€} \leq x < 300\ 000\text{€}$	38%	8%	19%	10%
$x \geq 300\ 000\text{€}$	58%	9%	22%	10%

Four limits regarding empirical analysis should be highlighted. First, this static analysis does not consider direct payment redistribution induced by national decoupling implementation neither holding restructurings. Second, distribution effects from Common market organisations reform modalities implemented from 2005 are excluded. Third, distributional data used leave out some sectors where direct payments are paid to producer associations and not directly to final beneficiary (premiums for tobacco and bananas). Fourth, British and Portuguese voluntary modulations are not taken into account.

### III. RESULTS

#### A. The state of the (dis)Union: facts and lessons

Even if payment ceiling by farm carries a sound political signal in terms of equity, it has never been implemented (individual support limits are implemented in the United States since 1970). On the one hand, some States would be particularly affected by this provision regarding historical or institutional specificities. On the other hand, it would lead to discriminate larger farms guided by economies of scale strategy, to thwart farm businesses' plans, and would distort competition. Also, degressive rates with brutal thresholds would lead some farms to change their legal structure or split their holding in order to bypass discretionary thresholds.

Regarding redistribution issues, areas specialised in products historically eligible to high direct payments (mainly cereal, oilseeds and protein crops) shall be confronted to larger cuts. These areas shall maintain a fraction of the modulated amount if they are involved in rural development programmes as part of *national strategy plans*.

Except for the 5 000 euro franchise integrated in the modulation mechanism, and in spite of previous Commission proposals, improving equity in the direct payment scheme has never been put into practice. Previous developments allow us to list policy recommendations regarding both distributional matters. Direct payment per farm shall not be capped or be subject to complex and distinctive modulation rates. Modulation shall consider a minimum franchise amount, avoid any threshold effects and be compulsory. Any further increase in the compulsory rate shall be reflected by a corresponding decrease in voluntary ones. Financial reallocation between Members States of modulated amounts is a sensitive issue examined in the discussion section of this paper. Last but not least, a revised article 69 of Council Regulation 1782/2003 would enable financing within the first pillar sustainable rural development measures.

The modulation mechanism challenges distribution matters between pillars. Those within the first one shall be partially sorted out by the national implementation of the decoupling scheme and by a revised article 69. This latter has no effect on the European budget and allows targeted measures short-term funding within the first pillar. It runs however against the current two pillar dichotomised CAP.

Previous recommendations, *ceteris paribus*, will not jeopardise a further in-depth reform of the direct payment regime. Indeed, the key issue is direct payment targeting, not transitory modulation scheme adjustments.

#### B. Financial outcomes from competing scenarios

Roughly 74% of EU15 direct payment beneficiaries receive annually less than 5 000 euros. These 75% receive 13.5% of EU15 direct payment total amount. In other words, modulation is applied to 26% of EU15 holdings which receive more than 85% of EU15 direct payments.

EC2007, EP2008, EC2008 and ALT scenarios would cut EU15 direct payments by respectively 8.4%, 4.2%, 7.2% and 5.3%. Differentiating uniform modulation and equity tool, the former would cut EU15 direct payments by 6.8%, 3.4%, 6.8% and 5.3%, the latter by further 1.6%, 0.8% and 0.4% respectively (cf. Table 3).

Table 3 Total cuts in direct payments delivered by tool  
(million euros, 2010-2013 financial period)

EC2007: Communication from the EC (November 2008)  
EP2008: Report from the EP (March 2008)  
EC2008: Legislative proposals from the EC (May 2008)  
ALT: Alternative scenario (uniform modulation rate with 10% max)

	EC2007		EP2008		EC2008		ALT	
	mod.	equity	mod.	equity	mod.	equity	mod.	equity
	9 415.1	2 207.3	4 706.9	1 085.4	9 415.1	500.4	7 296.5	-

## IV. DISCUSSION

Member States would be affected in different proportions regarding both modulation and upper cuts. Main affected countries by the uniform modulation would be France, Germany, the UK, Spain and Italy with a reduction representing respectively 28.3%, 19.3%, 14.2%, 10.9% and 7.6% of the total European modulated amount. Considering the equity tool, Germany and the UK would be the main countries affected by EC2007 (and EC2008) scenarios with respectively (53.1%, 51.6%) and 15.2% (16.5%) of total upper cuts. Observing that EP2008 equity tool is softer and starts with payments over 10 000 euros, financial impacts by Member State are close to those from uniform modulation. France, Germany, the UK, Spain and Italy would be the main affected countries with cuts representing respectively 26.7%, 24.4%, 15.7%, 10% and 7.3% of EU15 total equity tool cut. This outcome may have been the starting point of the European Parliament proposal along with a main concern on homogeneous national increase in direct payments cuts (cf. Table 4).

The ALT scenario would more than double the EU15 modulated amount while affecting uniformly the percentage increases by Member State without interfering with economies of scale and competition distortions.

Table 4 Percentage increase in modulation amount referring to status quo scenario by Member State (2010-2013 financial period)

EC2007: Communication from the EC (November 2008)  
 EP2008: Report from the EP (March 2008)  
 EC2008: Legislative proposals from the EC (May 2008)  
 ALT: Alternative scenario (uniform modulation rate with 10% max)

MS / scenario	EC2007	EP2008	EC2008	ALT
Belgium	104.0%	17.8%	101.0%	55.0%
Denmark	138.1%	23.8%	108.6%	55.0%
Germany	229.1%	29.2%	128.5%	55.0%
Greece	104.5%	9.9%	101.5%	55.0%
Spain	132.6%	21.2%	107.4%	55.0%
France	104.9%	21.8%	101.3%	55.0%
Ireland	102.6%	16.7%	100.7%	55.0%
Italy	153.9%	22.2%	112.3%	55.0%
Luxembourg	101.4%	18.1%	100.4%	55.0%
Netherlands	242.1%	23.7%	129.1%	55.0%
Austria	119.3%	13.4%	104.2%	55.0%
Portugal	132.8%	23.1%	108.5%	55.0%
Finland	101.5%	13.2%	100.3%	55.0%
Sweden	124.0%	20.9%	105.6%	55.0%
U. Kingdom	150.3%	25.5%	112.4%	55.0%
EU15 average	146.9%	23.1%	110.7%	55.0%
stand. deviation	44.2%	5.2%	9.4%	0.0%

### A. On the efficient use of savings

Before providing rural development budgetary allocations, concrete budgetary needs are required. The identification of European priorities is quite wide -climate change, renewable energy, water management and biodiversity -and would deserve programme specifications prior to credit allocations. During the 2000-2006 rural development programming period, less than three fourth of EU15 credit was effectively spent (with high national disparities from 49% for Greece to 85% for Finland).

Funds released rapidly by extra-modulation may interfere already established rural development's *national strategy plans* for the 2007-2013 period. Increasing European funds for rural development shall induce an increase in national expenditures. Therefore decreasing co-financing rates for Member States would release national expenditures. By contrast, the present keeping out of the co-financing principle granted to first pillar spending may not be irreversible. However, dealing with co-financing rates and subsidiarity has to be part of a more general agreement on European budget as planned from 2009, after the CAP *health check*.

By not being mistaken regarding the coming European calendar and by considering short-term commitments, an efficient use of CAP spending argues in favour of a low increase in modulation rate.

### B. On the financial reallocation between Member States

Should savings stay in the generating Member State or be reallocated to others? Due to the imbalanced distribution of direct payments between Member States and the total amount involved, this sensitive question has always been related to direct payment cuts. The 2003 reform introduced restrictive provisions limiting financial redistribution.

Each Member State keeps automatically one-percentage-point of the total modulated amount he generates. The remaining amount is then allocated among Member States in accordance with national agricultural area, agricultural employment and gross domestic product per capita in purchasing power. This allocation key involves only EU15, Member States being ensured to maintain at least 80% of the national modulated amount (90% for Germany). All scenarios present an effective financial reallocation rate of 12.7%-12.9% of the total modulated amount (cf. Table 5).

Table 5 Financial reallocation: gain/loss and percentage return by Member State (million euros, 2010-2013 financial period)

EC2007: Communication from the EC (Nov. 2008)  
 EP&EC2008: Report from the EP (March 2008) and legislative proposals from the EC (May 2008) – as well as a status quo scenario  
 ALT: Alternative scenario (uniform modulation rate with 10% max)

MS / scenario	EC2007		EP&EC2008		ALT	
Belgium	-35.3	80.0%	-17.6	80.0%	-27.4	80.0%
Denmark	-65.7	80.0%	-32.9	80.0%	-50.9	80.0%
Germany	-181.6	90.0%	-90.8	90.0%	-140.8	90.0%
Greece	196.5	197.3%	94.7	194.0%	150.7	196.3%
Spain	414.9	140.4%	209.6	140.8%	322.7	140.5%
France	-532.6	80.0%	-266.3	80.0%	-412.7	80.0%
Ireland	-67.4	80.0%	-33.7	80.0%	-52.2	80.0%
Italy	189.2	126.3%	100.1	127.9%	149.1	126.8%
Luxembourg	-2.3	80.0%	-1.1	80.0%	-1.8	80.0%
Netherlands	-14.6	92.5%	-3.5	96.4%	-9.6	93.6%
Austria	166.1	222.1%	79.3	216.5%	127.1	220.5%
Portugal	232.4	280.8%	109.8	270.9%	177.3	278.0%
Finland	11.3	109.3%	7.3	111.9%	9.5	110.0%
Sweden	-43.9	80.0%	-21.3	80.6%	-34.0	80.0%
U. Kingdom	-267.0	80.0%	-133.5	80.0%	-206.9	80.0%

As amounts released by upper cuts would stay within the generating Member State, equity tools would have no reallocation effect, as the increases in modulation amount set up in the EC2008 scenario. This latter disposal, participating to the complexity of the mechanism, was introduced in the May 2008 legislative proposals in order to facilitate a compromise regarding a short-term increase in direct payment cuts. Once again, it emphasises systemic budgetary considerations when direct payment reductions are envisaged.

### C. On the integration of the NMS in a modulation scheme

Although the 2003 CAP reform excludes the NMS of any modulation mechanism during the *phasing-in* period, legislative proposals integrated them as soon as they reach 90% of EU15 level in 2012 (2013 financial year, Bulgaria and Romania being exempted). In view of the increase in modulation applied in EU15, it fixes for EU10 a 3% uniform modulation rate plus the common equity instrument. It would release roughly 100 million euros fully returned to the initiator Member States. Considering heterogeneous farm structures, Czech Republic and Hungary would generate respectively 32.5% and 30.8% of EU10 total modulated amount; Poland would contribute to less than 18%.

Even concluded the *phasing-in* period, NMS budget committed to the second pillar will be higher than to the first one. Arbitrary and differentiated modulation schemes between EU15, EU10 and EU2 would undermine legitimacy and efficiency of such a mechanism. Indeed, modulation is a tool adapted to the current direct payment regime which shall not be the one implemented beyond 2013. Therefore it would be more pertinent not to involve the 12 NMS in a related past-policy tool.

## V. CONCLUSION

The implementation of a compulsory modulation with the 2003 reform opened a more general reorientation of the CAP direct payments. It may challenge the 2007-2013 distribution matters between pillars, not within the first one through the performance of a controversial equity tool. The national implementation of the decoupling scheme and a revised article 69 are more appropriate to do so.

In order to give farmers certainty and ensure an efficient use of spending, a deep increase of modulation rate shall not occur within the current financial perspectives. Nevertheless, a slight uniform one shall rather respect budgetary ceilings and be consistent with the progressive implementation of a new policy set than truly *strengthen* rural development measures within the CAP or prevail over a new paradigm in the direct payment regime.

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