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***The Impact of Decoupling and Modulation in the Enlarged Union:
A Sectoral and Farm Level Assessment***



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Deliverable No. 21**

Impact of alternative direct payment options on budgetary outlays



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1 Introduction

Since the beginning of the last decade direct payments belong to the Common Agricultural Policy (CAP) of the EU and as concluded under the Mid Term Review (MTR) reform they will be part of the CAP in the near future as well, though paid decoupled from production.

However, policy makers and scientists discuss the legal and economic foundation of maintaining these payments in the long-run. Many doubt that the current design of the payment system as well as the level of direct payments can be maintained beyond the next revision of the CAP for at least four reasons: Firstly, due to the critical financial situation in many member states and the immense part of the EU budget, which is allocated to the agricultural sector, subsidies to farmers have already been subject to criticism in the course of establishing a new financial perspective for the years 2007 to 2013. Further EU-accessions will lead to further increasing budgetary shortages. Secondly, by decoupling the major part of direct payments from production their trade distorting effect has been reduced significantly. However, several actors on global markets still claim a reduction of the re-designed EU payments under the MTR. Though WTO negotiations have preliminary failed, the new CAP payments might be under fire again in the near future again. Thirdly, direct payments have been introduced to compensate farmers for the reduction of institutional prices in the course of the MacSharry reform in 1992. It is questionable whether farmers still have to be compensated when these price cuts took place about 20 years ago. Fourthly, several EU members still claim higher support for second pillar measures and a reallocation of money is expected to be on the agenda for negotiations on further CAP reforms again.

Against this background, a reorganisation of the EU payment system seems to be inevitable at least after 2009 when the revision of the current CAP is due. Thereby, a change in the approach of financing CAP payments could be high on the agenda. At least three financing options can be expected to be discussed: Firstly, a significantly stronger modulation of financial means from the first to the second pillar; thereby, it is inevitable to discuss whether the NMS should be included into the dynamic modulation mechanism. Under the current CAP NMS are not obliged to apply the dynamic modulation mechanism as direct payments are lower than those of the EU-15 in the first years of membership. However, since it is questionable whether NMS do really profit from this exclusion at all and since the level of payments in the NMS will reach the EU-15 level in the following years after 2009 anyway, the inclusion of the NMS into the modulation mechanism might be an option in further negotiations. Secondly, the obligation to co-finance direct payments under the first pillar; under the current CAP only the top-ups paid in the NMS as well as “purely” second pillar

measures have to be co-financed by the member states¹. Thirdly, the reduction of the budget for direct payments without any compensating measures. Each of these options would affect budgetary outlays of EU member states.

This paper is Deliverable 21 within Workpackage 10 of the IDEMA project. It has the purpose to look at the budgetary effects of implementing the above mentioned three policy options from 2010 on. Thereby, a special focus will be on the question whether not only members of the EU-15 but also the NMS should be included into the dynamic modulation mechanism.

Of course, also the implementation of other policy options like a Bond Scheme or the prohibition of partially coupled payments are imaginable. However, since neither the implementation of a Bond Scheme nor the prohibition of partially coupled payments would have a direct impact on the CAP budget (as far as the overall budget for the payments under the first pillar is not changed) these policy options are not taken into account here². For the same reason this paper does also not include an analysis of the budgetary effects of decoupling as such, though the IDEMA project focuses much on an impact analysis of switching from coupled to decoupled direct payments³. An analysis of changing financing approaches of purely second pillar measures and an analysis of reorganising the financing approach for national top-ups in the NMS are also beyond the scope of this paper. Top-ups in the NMS are phased out from 2011 on so that new resolutions can not be expected after the revision of the CAP in 2009 anyway.

The paper is organised as follows: The next chapter provides an overview of the distribution of financial means among member states and policy areas under the current policy setting. Chapter 3 compares the effects of the above mentioned options of reorganising the direct

¹ In most cases the EU pays 75% of the costs, which arise from measures carried out under the basic rural development (pillar 2) budget, in “Objective 1” regions and 50% elsewhere. In 2005 and 2006, however, the EU-share of co-financing agri-environmental schemes increases to 85% in “Objective 1” regions and 60% elsewhere. “Objective 1” regions include the least prosperous countries and regions of the EU.

² Of course, an implementation of both a Bond Scheme and a prohibition of partially coupled payments could have budgetary effects, though in a somewhat indirect way by affecting production decisions and, thus, trade flows and expenditures for (revenues from) trade instruments. However, since it would be highly speculative to assume the existence or even certain levels of tariffs or export subsidies for the year 2013, budgetary effects that result from changing expenditures for (revenues from) the application of trade instruments are not taken into account in this analysis.

³ Decoupling leads to considerable reductions in costs for administration, since the level of production does not have to be controlled any more. However, these administrative costs are mainly borne by the member states and do therefore not affect the EU budget, which is in the focus of this analysis. In a more comprehensive analysis, however, this aspect has to be considered.

payment system in the EU, i.e. a higher modulation, a co-funding approach, and a strong reduction of direct payments. In Chapter 4 results are discussed an outlook is given.

2 Current budget of the CAP

As a result of the high political importance of financial support to farmers in the early days of the CAP budgetary costs of operating the CAP have always been immense. Though the amount of money spent on subsidies has stabilised more recently due to a more cautious approach of governments to EU expenditure, CAP spending in 2007 will still amount to 55 bln. € and, thus, takes up almost the half (46%) of the entire EU budget. This section shows the distribution of the EU budget for the agricultural sector among policy areas and member states and describes the most important rules with regard to financing and distributional aspects.

Expenditures for EU policy measures are subject to annual ceilings, which governments agree upon within negotiations on the long-term financial perspectives. The current set expires at the end of 2006. The financial perspective for the next period, reaching from 2007 to 2013, was finalised after long negotiations by the heads of EU governments in December 2005. As shown in Table 1 total EU budget will increase from 120.6 bln. € in 2007 to 126.6 bln. € in 2013, measured in 2004 prices. These means are financed by a mixture of sources, the most significant being a levy based on a proportion of each member state's Gross National Income (GNI). For the period of the next financial perspective, it has been agreed that this levy decreases from 1.1% in 2007 to 1.0% in 2013 corresponding to an average 1.045%.

Table 1: EU-27 spending figures for 2007 - 2013⁴

million € 2004 prices	2007	2008	2009	2010	2011	2012	2013	Total 2007 - 2013
Total budget (commitment appropriations)	120601	121307	122362	122752	123641	125055	126646	862363
% of GNI	1.10%	1.08%	1.06%	1.04%	1.03%	1.02%	1.00%	1.045%
Preservation and management of natural resources	54972	54308	53652	53021	52386	51761	51145	371244
of which CAP pillar 1	43120	42697	42279	41864	41453	41047	40645	293105
of which CAP pillar 2	9964	9928	10205	9927	9973	10001	10057	69250

⁴ All information on budgets and CAP regulations in this paper are based on Agra Europe (2006).

The budget for the agricultural sector (“Preservation and management of natural resources”) is divided into two areas. The traditional agricultural market support and direct payments (also including the Single Farm Payment (SFP)) are commonly referred to as “pillar 1” of the CAP. Rural development, agri-environmental and other accompanying measures are included in “pillar 2”. Each pillar has its own sub-ceilings of the financial perspective that must not be exceeded. The share of the budget allocated to the agricultural sector is still considerably high, though decreasing over time from 45.6% to 40.4%. The major part of the agricultural budget is allocated to first pillar measures.

The CAP budget established for each year is further broken down by product sector, member state or type of policy instrument. Due to its importance for the analysis of budgetary effects of modulation the national ceilings for payment of the SFP between 2005 and 2013 are presented in Table 2⁵.

Table 2: National ceilings for payment of Single Farm Payment (in mio. €)

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Belgium	411.1	530.6	530.1	530.1	530.1	530.1	530.1	530.1	530.1
Denmark	943.4	996.2	996.0	996.0	996.0	996.0	996.0	996.0	996.0
Germany	5148.0	5492.2	5492.0	5492.0	5492.0	5496.0	5496.0	5496.0	5496.0
Greece	838.3	1701.3	1723.3	1723.3	1723.3	1761.3	1761.3	1761.3	1761.3
Spain	3266.1	4065.1	4263.1	4263.1	4263.1	4275.1	4275.1	4275.1	4275.1
France	7199.0	7231.0	8091.0	8091.0	8091.0	8099.0	8099.0	8099.0	8099.0
Ireland	1260.1	1322.3	1322.1	1322.1	1322.1	1322.1	1322.1	1322.1	1322.1
Italy	2539.0	3464.5	3464.0	3464.0	3464.0	3497.0	3497.0	3497.0	3497.0
Luxembourg	33.4	36.6	37.1	37.1	37.1	37.1	37.1	37.1	37.1
Netherlands	386.6	386.6	779.6	779.6	779.6	779.6	779.6	779.6	779.6
Austria	613.0	614.0	712.0	712.0	712.0	712.0	712.0	712.0	712.0
Portugal	452.0	493.0	559.0	559.0	559.0	561.0	561.0	561.0	561.0
Finland	467.0	467.0	552.0	552.0	552.0	552.0	552.0	552.0	552.0
Sweden	637.4	650.1	729.0	729.0	729.0	729.0	729.0	729.0	729.0
UK	3697.5	3870.4	3870.5	3870.5	3870.5	3870.5	3870.5	3870.5	3870.5
Czech Rep.	228.8	266.7	343.6	429.2	514.9	600.5	686.2	771.8	857.5
Hungary	350.8	420.2	508.3	634.9	761.6	888.2	1014.9	1141.5	1268.2
Poland	724.6	881.7	1140.8	1425.9	1711.0	1996.1	2281.1	2566.2	2851.3
Slovakia	97.7	115.4	146.6	183.2	219.7	256.2	292.8	329.3	365.9
Slovenia	35.8	41.9	56.1	70.1	84.1	98.1	112.1	126.1	142.2
Estonia	23.4	27.3	40.4	50.5	60.5	70.6	80.7	90.8	100.9
Latvia	33.9	39.6	55.6	69.5	83.4	97.3	111.2	125.1	139.0
Lithuania	92.0	107.3	146.9	183.6	220.3	257.0	293.7	330.4	367.1
Cyprus	8.9	12.5	16.3	20.4	24.5	28.6	32.7	36.8	40.9
Malta	0.7	0.8	1.6	2.1	2.5	2.9	3.3	3.7	4.1
EU-25	29488.4	33234.3	35576.8	36189.9	36803.1	37513.1	38126.3	38739.3	39354.7

⁵ In those members, where (partially) coupled payments exist, the budget for the SFP is reduced correspondingly to ensure that farmers receive the same amount of aid overall as if they had received the basic decoupled aid.

Ceilings for the members of the EU-15 increase until 2006 taking into account the increase in the premium for milk. From then on ceilings remain more or less the same until 2013. In the NMS, ceilings increase between 2005 and 2013 reflecting the approach of phasing-in of direct payments. In the course of modulation these country-specific budgets are reduced according to the modulation rate assumed adjusted by the individual share of small producers in each country. National SFP ceilings for Romania and Bulgaria have not been established by the European Commission yet⁶.

Under the current CAP a proportion of the SFP and all other coupled direct aid payments in EU-15 members is not paid to farmers but transferred into the second pillar in the course of modulation in order to finance additional rural development measures. This money is available for EU-15 members in addition to the allocations made under the basic rural development regulation. According to the regulations under the MTR reform, EU-15 members have to apply a modulation rate of 3% and 4% in the years 2005 and 2006, respectively. From 2007 to 2012, a rate of at least 5% is obligatory. However, member states can choose higher modulation rates for their own farmers, as long as they do not exceed 10% in 2005 and 2006 and 20% from 2007 on. The NMS are exempted from modulation regulations.

The first 5000 € per year in direct aids per farmer are exempted from the modulation requirement. As a result, a large number of farmers across the EU-15 is not affected by the modulation regulation at all (see below).

If the obligatory modulation rate in a country does not exceed 10% all modulation money has to be match-funded by the respective national government. At least 40% of the subsidies to any second pillar measure have to be derived from national funding, with a maximum of 60% stemming from money that has been transferred from the first pillar.

3 Budgetary effects of reorganising the EU payment system

Chapter 2 has briefly shown how financial means for the agricultural sector are distributed among EU member states and among policy areas of the CAP. A reorganisation of the EU payment system, however, could lead to a redistribution of money among the two pillars of the CAP and, thus, among EU member states. This chapter will analyse the budgetary effects of various options of redesigning the CAP payments.

⁶ In the calculations presented in chapter 3 figures for Bulgaria and Romania rely on assumptions.

3.1 Scenarios

This analysis' focus is on the following scenarios:

- **5% MODULATION WITHOUT NMS:** This scenario includes a continuation of the obligatory modulation by 5% for the EU-15 members until 2013. Budgetary savings are fully shifted to the second pillar of the CAP and redistributed among EU-15 members for measures of rural development according to “agricultural area, agricultural employment and a prosperity criterion”. The NMS are exempted from modulation. This scenario corresponds to the continuation of the current CAP.
- **5% MODULATION INCLUDING NMS:** NMS are exempted from the dynamic modulation mechanism under the current CAP. This sounds reasonable to some extent as direct payments for the NMS are lower than those for the EU-15 in the first years of membership. However, it is questionable whether the NMS really profit from this exclusion. In order to answer this question, this scenario includes an obligatory modulation by 5% for both EU-15 members and NMS until 2013. Budgetary savings are fully shifted to the second pillar. The redistribution of these financial means takes place among all members of the EU-25 according to the above mentioned three criteria.
- **50% MODULATION WITHOUT NMS:** This scenario includes a stepwise increase in the modulation rate between 2010 and 2013 reaching 50% in 2013. That is, the modulation rate increases up to 12.5% in 2010 and amounts to 25% in 2011, 37.5% in 2012, and, finally, 50% in 2013. Budgetary savings are fully shifted to the second pillar of the CAP and redistributed among EU-15 members. The NMS are exempted from modulation.
- **50% MODULATION INCLUDING NMS:** The obligatory modulation rate of 50% in 2013 is applied in both groups of EU-members, i.e. EU-15 members and NMS. The redistribution of the modulated money takes place among all members of the EU-25.
- **CO-FINANCING SCENARIO:** The modulation mechanism corresponds to the current CAP. Thus NMS are exempted from the modulation obligation and the modulation rate in the EU-15 amounts to 5% until 2013. However, from

2010 on all member states have to co-finance direct payments paid under the first pillar by 50%.

- **REDUCTION SCENARIO:** Again, the modulation mechanism corresponds to the current CAP. Direct payments under the first pillar, however, are reduced stepwise by 50% between 2010 and 2013. Budgetary savings are not shifted to the second pillar.

3.2 Scenario results

The following sections compare the budgetary effects of the policy scenarios described above. Thereby, a special focus is on the effects of including the NMS into the obligatory modulation mechanism from 2010 on.

3.2.1 Modulation

According to the criteria “agricultural area, agricultural employment and national GDP”, the NMS would be eligible to a large share of the rural development budget: They account for about 29% of agricultural area, 52% of agricultural employment, and their GDP per head is projected to be at 50% of the EU-average in 2010, the year when the first step (12.5%) of the final modulation rate of 50% will be realised (see Table 3, columns (1) to (3)). In order to summarise the three criteria concluded by the European Commission a weighted average of the shares in area and employment (see col. (4)) adjusted by the relative GDP per head (see col. (5)) has been chosen as a key for redistribution. The result is presented in col. (6): the NMS would be eligible for about 42% of the rural development budget. Thereby, Poland (15.2%) and Romania (15.2%) followed by France (12.5%) and Spain (10.7%) would receive the largest parts of this money.

How does this contrast with the distribution of the rural development budget of the EU without any modulation (neither in the EU-15 nor in the NMS)? To answer this question the budget under the second pillar for both EU-15 members and NMS for 2013, distributed according to SAPARD-key, are taken into account (see col. (8))⁷. Without any modulation the NMS would account for only 18% of the rural development budget in 2013. In a situation with dynamic modulation being limited to the EU-15 only, the share of the NMS would decrease further (see below).

⁷ So far, there is still no agreement as to how these rural development funds belonging to the second pillar will be distributed among member states between 2007 and 2013.

Table 3: Members states' basic allocation for modulation and "pure" second pillar measures

	1	2	3	4	5	6	7	8
	Agric. Area	Agric. Employ- ment	GDP p.c.	Weighting (0.65A+0.35B)	Correction factor $1+((100-\text{GDP})/3)/100$	Redistri- bution key	Redistri- bution key	Shares in rural dev. budget w/o any modulation
	2004	2005	2010	EU-25	EU-25	EU-25	EU-15	
Belgium	0.75%	0.90%	123.6	0.80%	0.92	0.71%	1.10%	1.00%
Denmark	1.44%	0.70%	130.1	1.18%	0.90	1.01%	1.70%	0.70%
Germany	9.18%	6.80%	120.5	8.34%	0.93	7.44%	13.00%	16.30%
Greece	3.06%	5.10%	81.9	3.78%	1.06	3.83%	5.50%	2.90%
Spain	13.61%	5.40%	95.9	10.74%	1.01	10.42%	19.30%	7.80%
France	15.97%	9.60%	114.8	13.74%	0.95	12.51%	19.20%	10.40%
Ireland	2.32%	0.10%	120	1.54%	0.93	1.38%	2.70%	3.80%
Italy	8.07%	5.50%	114.5	7.17%	0.95	6.53%	12.10%	16.50%
Luxemb.	0.07%	0.00%	177.5	0.04%	0.74	0.03%	0.10%	0.20%
N'lands	1.04%	1.10%	124.6	1.06%	0.92	0.93%	2.30%	0.90%
Austria	1.82%	2.10%	123.3	1.92%	0.92	1.69%	4.10%	5.30%
Portugal	2.06%	5.50%	90.6	3.26%	1.03	3.22%	5.10%	5.50%
Finland	1.21%	1.00%	114.8	1.14%	0.95	1.04%	1.80%	5.20%
Sweden	1.70%	0.90%	115	1.42%	0.95	1.29%	2.10%	2.10%
UK	9.20%	3.00%	114.8	7.03%	0.95	6.40%	9.90%	3.00%
Cz. Rep.	1.96%	0.70%	74.4	1.52%	1.09	1.58%		0.80%
Hungary	3.16%	1.00%	61.9	2.40%	1.13	2.59%		1.30%
Poland	8.79%	22.40%	48.2	13.55%	1.17	15.21%		6.00%
Slovakia	1.04%	0.30%	60.1	0.78%	1.13	0.85%		0.60%
Slovenia	0.26%	0.70%	82.5	0.42%	1.06	0.42%		0.20%
Estonia	0.42%	0.10%	48.8	0.30%	1.17	0.34%		0.40%
Latvia	0.89%	0.60%	38.5	0.79%	1.21	0.91%		0.80%
Lithuania	1.40%	1.60%	42.4	1.47%	1.19	1.68%		1.10%
Bulgaria	2.87%	1.50%	32.3	2.39%	1.23	2.81%		1.80%
Romania	7.71%	23.40%	39.6	13.20%	1.20	15.18%		5.30%
EU-15	71.50%	47.70%	113.7	63.17%	0.95	58.43%	100.00%	81.60%
NMS	28.50%	52.30%	49.9	36.83%	1.17	41.57%		18.40%
EU-25	100.00%	100.00%	100	100.00%	1.00	100.00%		100.00%

The key questions are, how much the NMS would gain under the second pillar, if they were included in modulation, and to what extent they would lose through the cuts in direct payments.

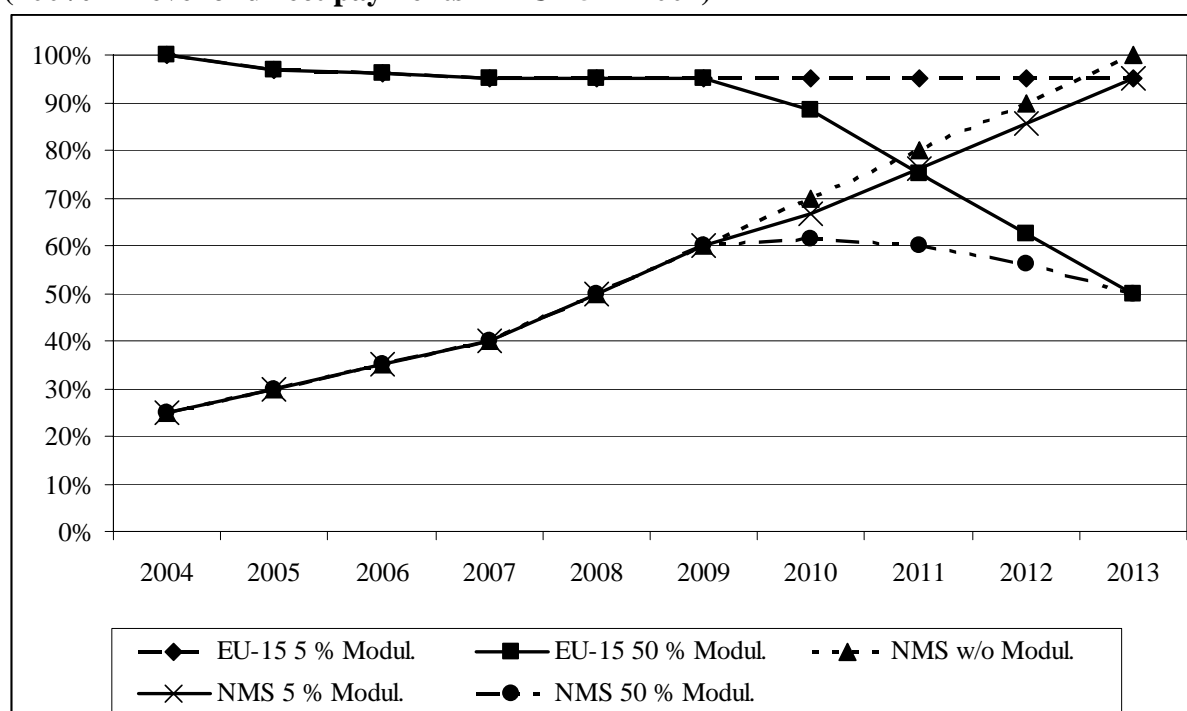
As mentioned in section 3.1 various options have been specified in order to assess these questions quantitatively. The scenarios 5% MODULATION WITHOUT NMS and 50% MODULATION WITHOUT NMS treat the NMS as being not subject to obligatory modulation. In the scenarios 5% MODULATION INCLUDING NMS and 50% MODULATION INCLUDING, in contrast, NMS are affected directly by modulation. A comparison of the results of these

scenarios allows to draw some conclusions on the effects of obligatory modulation in the NMS and in the EU-15 members.

Graph 1 illustrates the development of the level of direct payments in the EU-15 and the NMS. Under the current CAP, direct payments in the EU-15 are reduced stepwise by totally 5% between 2005 and 2007, thus remaining at 95% of the 2004 (base) level (see Graph 1, line “EU-15 5% Modul.”). In the NMS direct payments (without national top-ups) are introduced beginning with 25% of the base level in 2004, 30% in 2005, 35% in 2006, and 40% in 2007. For the remaining period after 2007, direct payments are increased by 10 percentage points each year ensuring that the NMS reach the support level applicable in the EU-15 without modulation in 2013 (see Graph 1, line "NMS w/o Modul.”).

Under the option of including the NMS in the 5% modulation mechanism from 2010 on direct payments in 2010 do not amount to 70% but to 66.5% (95% of 70%) of the base level and will reach 95% of the base level in 2013 (see line "NMS 5% Modul." in Graph 1). The amounts saved by modulation are now distributed amongst the EU-25.

Graph 1: Assumptions on the development of direct payments in EU-15 and NMS (100% = Level of direct payments in EU-15 in 2004)



In case of increasing the modulation rate stepwise up to 50% between 2010 and 2013 the level of direct payments develops as follows: According to the increase in the obligatory modulation rate from 5% to 12.5% direct payments in the EU-15 decrease from 95% of the base level in 2009 to 87.5% in 2010. From 2011 to 2013 direct payments decrease linearly

reaching 50% of the base level (see line "EU-15 50% Modul." in Graph 1). According to a modulation rate of 12.5% the level of payments in the NMS reaches 61.25% (87.5% of 70%) in 2010, 60% (75% of 80%) in 2011, 56.25% (62.5% of 90%) in 2012, and 50% in 2013 (see line "NMS 50% Modul." in Graph 1).

In order to quantify the amounts saved in the first pillar by the modulation of direct payments the national budget available for payments of the SFP in 2013 is reduced by 5% and 50% and adjusted for the share of small producers in order to take into account the 5000 €franchise, respectively. For example, if the share of small producers in a country is 20%, the annual reduction of direct payments under the 50% modulation mechanism is only 10% instead of 12.5% and, thus, 40% instead of 50% overall in 2013.

Tables 4 and 5 display the results of the four modulation scenarios mentioned in section 3.1 for the year 2013, which is the final year of the implementation of dynamic modulation.

Under the scenarios 5% MODULATION WITHOUT NMS and 50% MODULATION WITHOUT NMS, where the saved amounts of modulation are only distributed among the EU-15 countries, 9.4 bln. €(see Table 4, col. (5)) and 19.9 bln. €(see Table 5, col. (5)) will be available for rural development in 2013 within the EU-15 countries, respectively. These budgets are composed of a modulated element, which is generated by the reduction of direct payments by 1.2 bln. €and 11.7 bln. €, respectively, and a non-modulated element (8.2 bln. €). In case of the scenario 5% MODULATION WITHOUT NMS the largest shares are for Italy (19%), Germany (19%), France (14%), and Spain (11%). Under the scenario 50% MODULATION WITHOUT NMS the largest shares are for France (17%), Germany (16%), Italy (15%), and Spain (15%). The distribution of the rural development budget among members depends on the SAPARD key (see Table 3, column (8)), which is responsible for the distribution of non-modulated money, and on the redistribution key for modulated money, which relies on the criteria “agricultural area and employment as well as national GDP per capita” (see Table 3, column (7)). Accordingly, if the modulation rate and, thus, modulated budget is low, the distribution of the total rural development budget largely depends on the SAPARD key. The redistribution key of the modulated budget gains in importance when the modulation rate increases. As a result, the Spanish and French share in the rural development budget of the EU is higher in case of 50% modulation, while the German and Italian share is higher when a modulation rate of 5% is applied.

Without modulation the NMS receive 1.8 bln. €for rural development (see Table 4, col. (5)), stemming from non-modulated money of the second pillar. According to the SAPARD key,

Poland will receive 33% and Romania 29% out of that amount. The NMS as a group would have a share of about 16% in the total EU budget for rural development in case of 5% modulation in the EU-15 and a share of about 8% when a modulation rate of 50% is applied in the EU-15.

Table 4: Redistribution of savings in direct payments into the second pillar of CAP in case of 5% modulation (in mio €)

	1	2	3	4	5	6	7	8	9	10
	Direct payments			Rural Development			Payments + Rural Dev.			Benefits/ Losses (col. 9 – col. 8)
	2013	2013	2013	2013	2013	2013	2013	2013	2013	
	w/o Mod. in EU-15 and NMS	Mod. in EU-15	Mod. in EU-25	w/o Mod. in EU-15 and NMS	Mod. in EU-15	Mod. in EU-25	w/o Mod. in EU-15 and NMS	Mod. in EU-15	Mod. in EU-25	
Belgium	530.1	511.3	511.3	100.6	115.6	115.6	630.6	626.9	626.9	0.0
Denmark	996.0	958.2	958.2	70.4	100.6	100.6	1066.4	1058.8	1058.8	0.0
Germany	5496.0	5284.7	5284.7	1639.3	1829.4	1829.4	7135.3	7114.2	7114.2	0.0
Greece	1761.3	1731.1	1731.1	291.7	343.3	324.1	2052.9	2074.4	2055.3	-19.1
Spain	4275.1	4134.6	4134.6	784.4	972.5	896.8	5059.5	5107.1	5031.4	-75.7
France	8099.0	7773.7	7773.7	1045.9	1306.2	1306.2	9144.9	9079.9	9079.9	0.0
Ireland	1322.1	1281.7	1281.7	382.2	414.5	414.5	1704.2	1696.2	1696.2	0.0
Italy	3497.0	3395.3	3395.3	1659.4	1780.0	1740.7	5156.4	5175.4	5136.1	-39.3
Luxemb.	37.1	35.7	35.7	20.1	21.2	21.2	57.2	56.9	56.9	0.0
N'lands	779.6	750.4	750.4	90.5	115.4	113.9	870.1	865.8	864.3	-1.5
Austria	712.0	697.3	697.3	533.0	569.9	547.6	1245.0	1267.2	1244.9	-22.3
Portugal	561.0	549.2	549.2	553.1	597.8	577.7	1114.1	1146.9	1126.9	-20.0
Finland	552.0	537.7	537.7	523.0	540.7	534.4	1075.0	1078.4	1072.1	-6.3
Sweden	729.0	703.1	703.1	211.2	233.8	231.9	940.2	936.9	935.0	-1.9
UK	3870.5	3705.4	3705.4	301.7	433.8	433.8	4172.2	4139.2	4139.2	0.0
Cz. Rep.	857.5	857.5	816.0	80.5	80.5	113.7	938.0	938.0	929.6	-8.3
Hungary	1268.2	1268.2	1210.5	130.7	130.7	176.9	1398.9	1398.9	1387.4	-11.5
Poland	2851.3	2851.3	2841.1	603.4	603.4	710.5	3454.7	3454.7	3551.6	96.9
Slovakia	365.9	365.9	348.1	60.3	60.3	74.6	426.2	426.2	422.7	-3.6
Slovenia	142.2	142.2	141.1	20.1	20.1	23.3	162.3	162.3	164.3	2.0
Estonia	100.9	100.9	99.7	40.2	40.2	42.8	141.1	141.1	142.5	1.4
Latvia	139.0	139.0	137.8	80.5	80.5	87.0	219.5	219.5	224.7	5.3
Lithuania	367.1	367.1	363.7	110.6	110.6	122.9	477.7	477.7	486.6	8.9
Bulgaria	767.9	767.9	756.0	181.0	181.0	202.8	949.0	949.0	958.8	9.9
Romania	2627.8	2627.8	2603.3	533.0	533.0	642.8	3160.8	3160.8	3246.1	85.2
EU-15	33217.6	32049.2	32049.2	8206.5	9374.9	9188.7	41424.1	41424.1	41237.9	-186.2
NMS	9487.8	9487.8	9317.3	1840.4	1840.4	2197.1	11328.3	11328.3	11514.4	186.2
EU-25	42705.4	41537.1	41366.5	10046.9	11215.3	11385.8	52752.4	52752.4	52752.4	0.0

The introduction of 5% (50%) modulation in EU-15 members would reduce the total amount of direct payments in the EU-15 from 33.2 bln. € to 32.0 bln. € (from 33.2 bln. € to 21.5 bln. €), which is equivalent to -3.5% (-35.2%) (see col. (1) and (2) in Tables 4 and 5).

A modulation rate of 5% (50%) applied in the NMS would reduce the total budget for direct payments in the NMS from 9.5 bln. € to 9.3 bln. € (from 9.5 bln. € to 7.8 bln. €), which is equivalent to -1.8% (-18%) (see col. (1) and (3) in Tables 4 and 5). This relatively small reduction in direct payments in the NMS is caused by the high share of small producers, who fall below the 5000 € franchise. For example, in Poland and Romania the share of small producers is above 80%.

On the one hand, the amount of money available for rural development in the EU-15 decreases, if modulation is introduced not only in the EU-15 but also in the NMS. In the EU-15 the budget of the 2nd pillar is at 9.2 bln. € instead of 9.4 bln. € in case of 5% modulation and 18.0 bln. € instead of 19.9 bln. € when 50% modulation is applied (see Tables 4 and 5, col. (5) and (6)). On the other hand, EU-payments for rural development in the NMS increase from 1.8 bln. € to 2.2 bln. € and from 1.8 bln. € to 5.4 bln. € respectively (see Tables 4 and 5, col. (5) and (6)). The NMS as a group would have a share of about 19% (23%) in the total EU-budget for rural development, which consists of the basic second pillar budget plus money resulting from modulation. Especially in the case of 50% modulation this share is substantially higher than under a situation when NMS are exempted from modulation. As mentioned above, the share under exclusion of the NMS amounts to 8% only. It is important to note, however, that the full increase in the second pillar for the NMS is conditional on the complete use of the budget available. If parts of the rural development budget are not used by member states, they remain with the EU.

The sum of direct payment and rural development budget for Spain, Italy, Austria, Portugal, and Greece increases the most among all EU-15 members, if the NMS do not have to apply any modulation mechanism and the modulated money is distributed just among members of the EU-15 (see Tables 4 and 5, col. (7) and (8)). Under 5% (50%) modulation the gains in Spain and Portugal, for example, amount to 48 mio. € (476 mio. €) and 33 mio. € (328 mio. €). However, when comparing the above mentioned scenarios with the scenarios that include the NMS into modulation, exactly these countries are affected by the strongest net losses (see Tables 4 and 5, col. (10)). The aggregate of EU-15 countries loses 0.2 bln. € (5% modulation) and 1.9 bln. € (50% modulation) if not only EU-15 members but also the NMS are subject to obligatory modulation.

Table 5: Redistribution of savings in direct payments into the second pillar of CAP in case of 50% modulation (in mio €)

	1	2	3	4	5	6	7	8	9	10
	Direct payments			Rural Development			Payments + Rural Dev.			Benefits/ Losses (col. 9 – col. 8)
	2013	2013	2013	2013	2013	2013	2013	2013	2013	
	w/o Mod. in EU-15 and NMS	Mod. in EU-15	Mod. in EU-25	w/o Mod. in EU-15 and NMS	Mod. in EU-15	Mod. in EU-25	w/o Mod. in EU-15 and NMS	Mod. in EU-15	Mod. in EU-25	
Belgium	530.1	342.0	342.0	100.6	251.0	251.0	630.6	593.0	593.0	0.0
Denmark	996.0	618.0	618.0	70.4	372.8	372.8	1066.4	990.8	990.8	0.0
Germany	5496.0	3383.3	3383.3	1639.3	3540.7	3540.7	7135.3	6924.0	6924.0	0.0
Greece	1761.3	1459.8	1459.8	291.7	807.8	616.5	2052.9	2267.6	2076.3	-191.3
Spain	4275.1	2870.3	2870.3	784.4	2665.1	1908.3	5059.5	5535.4	4778.6	-756.8
France	8099.0	4845.6	4845.6	1045.9	3648.6	3648.6	9144.9	8494.3	8494.3	0.0
Ireland	1322.1	918.1	918.1	382.2	705.4	705.4	1704.2	1623.4	1623.4	0.0
Italy	3497.0	2480.4	2480.4	1659.4	2865.6	2472.7	5156.4	5346.1	4953.1	-393.0
Luxemb.	37.1	23.0	23.0	20.1	31.3	31.3	57.2	54.4	54.4	0.0
N'lands	779.6	487.6	487.6	90.5	339.6	324.1	870.1	827.1	811.7	-15.4
Austria	712.0	565.0	565.0	533.0	902.3	679.2	1245.0	1467.2	1244.1	-223.1
Portugal	561.0	442.6	442.6	553.1	999.5	799.2	1114.1	1442.1	1241.8	-200.3
Finland	552.0	409.0	409.0	523.0	700.8	637.4	1075.0	1109.7	1046.4	-63.4
Sweden	729.0	470.0	470.0	211.2	437.1	418.4	940.2	907.0	888.4	-18.7
UK	3870.5	2219.3	2219.3	301.7	1622.6	1622.6	4172.2	3842.0	3842.0	0.0
Cz. Rep.	857.5	857.5	442.1	80.5	80.5	412.8	938.0	938.0	854.9	-83.1
Hungary	1268.2	1268.2	690.8	130.7	130.7	592.6	1398.9	1398.9	1283.5	-115.5
Poland	2851.3	2851.3	2749.4	603.4	603.4	1674.1	3454.7	3454.7	4423.5	968.7
Slovakia	365.9	365.9	188.3	60.3	60.3	202.4	426.2	426.2	390.7	-35.5
Slovenia	142.2	142.2	131.1	20.1	20.1	51.5	162.3	162.3	182.6	20.3
Estonia	100.9	100.9	89.2	40.2	40.2	66.2	141.1	141.1	155.3	14.2
Latvia	139.0	139.0	126.8	80.5	80.5	145.4	219.5	219.5	272.2	52.8
Lithuania	367.1	367.1	333.2	110.6	110.6	233.4	477.7	477.7	566.6	88.9
Bulgaria	767.9	767.9	648.8	181.0	181.0	398.7	949.0	949.0	1047.5	98.6
Romania	2627.8	2627.8	2382.9	533.0	533.0	1630.3	3160.8	3160.8	4013.3	852.5
EU-15	33217.6	21534.0	21534.0	8206.5	19890.1	18028.2	41424.1	41424.1	39562.2	-1861.9
NMS	9487.8	9487.8	7782.7	1840.4	1840.4	5407.5	11328.3	11328.3	13190.1	1861.9
EU-25	42705.4	31021.8	29316.6	10046.9	21730.6	23435.7	52752.4	52752.4	52752.4	0.0

The losses for the EU-15 are a net-surplus for the group of NMS. Poland and Romania denote the largest surplus when the NMS are included into modulation, amounting to 0.1 bln. € for both countries in case of 5% modulation and to 1.0 bln € and 0.9 bln € when a modulation rate of 50% is applied, respectively. However, the Czech Republic, Hungary, and Slovakia will receive less money for direct payments and rural development under the rules of modulation.

Under the current CAP the calculation of the budget each member of the EU-15 has to transfer into the second pillar as well as the distribution of modulated means among member states is very complex. The exact amount of modulated money, for example, is not only dependent on the modulation rate but also on the share of small producers. The calculation of the distribution of money among members is even more complicated and relies on certain parameters that are crucial for the final impact of modulation on each members' budget. It occurs according to the following steps that are illustrated for the case of 50% modulation for all members of the enlarged EU in Table 6:

Table 6: Calculation method for distribution of modulation savings (in mio. €)

	1	2	3	4	5	6	7	8	9
	Modulated money	20% direct	Allocation key	Additional direct	Total	Loss/ Gain	% return	% return w/o 80/90% minima	% return (only allocation)
Belgium	188.0	37.6	48.9	63.9	150.4	-37.6	0.80	0.60	0.50
Denmark	378.0	75.6	70.1	156.7	302.4	-75.6	0.80	0.49	0.36
Germany	2112.7	422.5	513.8	965.1	1901.4	-211.3	0.90	0.58	0.47
Greece	301.5	60.3	264.6		324.9	23.4	1.08	1.56	1.70
Spain	1404.8	281.0	719.3	123.5	1123.8	-281.0	0.80	0.99	0.99
France	3253.4	650.7	863.5	1088.6	2602.7	-650.7	0.80	0.61	0.51
Ireland	404.0	80.8	95.3	147.2	323.2	-80.8	0.80	0.57	0.46
Italy	1016.6	203.3	450.9	159.1	813.3	-203.3	0.80	0.89	0.86
Luxembourg	14.0	2.8	2.2	6.2	11.2	-2.8	0.80	0.44	0.30
Netherlands	292.0	58.4	64.3	110.9	233.6	-58.4	0.80	0.54	0.43
Austria	147.0	29.4	116.8		146.2	-0.9	0.99	1.43	1.54
Portugal	118.4	23.7	222.4		246.1	127.7	2.08	3.11	3.64
Finland	143.0	28.6	71.6	14.2	114.4	-28.6	0.80	0.98	0.97
Sweden	259.0	51.8	89.1	66.3	207.2	-51.8	0.80	0.73	0.67
UK	1651.1	330.2	441.8	548.9	1320.9	-330.2	0.80	0.62	0.52
Czech Rep.	415.4	83.1	108.8	140.4	332.3	-83.1	0.80	0.61	0.51
Hungary	577.4	115.5	179.1	167.4	461.9	-115.5	0.80	0.68	0.60
Poland	101.9	20.4	1050.3		1070.7	968.7	10.50	16.18	19.98
Slovakia	177.6	35.5	58.6	47.9	142.1	-35.5	0.80	0.71	0.64
Slovenia	11.1	2.2	29.2		31.4	20.3	2.82	4.27	5.09
Estonia	11.7	2.3	23.6		25.9	14.2	2.21	3.32	3.90
Latvia	12.2	2.4	62.5		65.0	52.8	5.33	8.16	9.95
Lithuania	33.9	6.8	116.0		122.8	88.9	3.63	5.52	6.64
Bulgaria	119.1	23.8	193.8		217.7	98.6	1.83	2.72	3.16
Romania	244.8	49.0	1048.3		1097.3	852.5	4.48	6.84	8.30
EU-25	13388.8	2677.8	6904.8	3806.3	13388.8				
		20%	52%	28%	100%				

Col. (1) shows the amount of money that is transferred to the second pillar through reductions in direct payments by 50%, however, adjusted according to the share of small producers in each country. One fifth of the modulated funds is retained by the respective member state (see col. (2)). The remaining transferred means are distributed among members according to the above mentioned criteria “agricultural area and employment as well as GDP” (see col. (3)). However, this share-out is further adjusted in order to ensure that all members get back at least 80% of the modulated money. In case of Germany, at least 90% of this money is retained in the member state (see col. (4))⁸. Col. (5) shows the total amount of money that is distributed to each member states’ second pillar in the course of applying a modulation rate of 50%. Col. (6) and (7) illustrate that all members of the EU-15 apart from Greece and Portugal denote a net loss due to modulation. However, these losses are rather moderate due to the “80% (90%) limit”. In the NMS, this limit has to be applied only in the Czech Republic, Slovakia and Hungary due to their small shares of small producers.

The introduction of a minimum limit of 80% (90%) and the agreement to retain the first fifth of the modulated money in the respective member state has an immense influence on the budgetary effects resulting from modulation. In case of Denmark, Germany, Ireland, Luxembourg, and the Netherlands member states would receive less than 60% of the money they have to transfer to the second pillar of the EU budget, if the 80% (90%) minimum regulation is not applied. If the regulation to keep the first fifth of the modulated money within the respective country is also skipped, return of money would even decrease to 30% to 47% in these countries. In this case, for example, money available for rural development measures in Germany (France) amount to 2.6 bln. € (2.7 bln. €) instead of 3.5 bln. € (3.6 bln. €) (compare Tables 5 and 7, col. (6)). Most of the NMS, in contrast, would gain a significant amount of money, if these two regulations are not applied. The return of money in Poland, Slovenia, Latvia, Lithuania, Estonia, Bulgaria, and Romania would be approximately twice as high as under their application. The available budget for rural development projects in Poland, Romania, and Bulgaria would increase from 1.7 bln. € to 2.6 bln. € from 1.6 bln. € to 2.6 bln. € and from 0.4 bln. € to 0.6 bln. € respectively (compare Tables 5 and 7, col. (6)). As a result, the available money for rural development measures, which is allocated to the NMS, makes up almost one third (31.6%) of the total EU budget for rural development measures and is thus almost 9 percentage points higher than under the application of a

⁸ The country specific exemption for Germany shall provide extra money for measures to offset the socio-economic problems caused by the abolition of rye intervention as part of the MTR reform.

minimum limit of 80% (90%) and the retention of the first fifth of the modulated money by the respective member state. Without these two regulations in place the sum of the available budget for direct payments and rural development measures for the aggregated EU-15 would decrease by 3.9 bln. €, while it would increase by the same amount for the group of NMS, if not only EU-15 members but also the NMS are subject to obligatory modulation.

Table 7: Redistribution of savings in direct payments into the second pillar of the CAP in case of 50% modulation (in mio €) without a minimum limit of 80% (90%) and without the guarantee to retain the first fifth of the modulated money

	1	2	3	4	5	6	7	8	9	10
	Direct payments			Rural Development			Payments + Rural Dev.			Benefits/ Losses (col. 9 – col. 8)
	2013	2013	2013	2013	2013	2013	2013	2013	2013	
	w/o Mod. in EU-15 and NMS	Mod. in EU-15	Mod. in EU-25	w/o Mod. in EU-15 and NMS	Mod. in EU-15	Mod. in EU-25	w/o Mod. in EU-15 and NMS	Mod. in EU-15	Mod. in EU-25	
Belgium	530.1	342.0	342.0	100.6	229.1	195.4	630.6	571.1	537.5	-33.7
Denmark	996.0	618.0	618.0	70.4	269.0	206.3	1066.4	887.0	824.3	-62.8
Germany	5496.0	3383.3	3383.3	1639.3	3158.2	2635.5	7135.3	6541.5	6018.9	-522.6
Greece	1761.3	1459.8	1459.8	291.7	934.3	804.7	2052.9	2394.0	2264.5	-129.6
Spain	4275.1	2870.3	2870.3	784.4	3039.4	2179.3	5059.5	5909.7	5049.5	-860.1
France	8099.0	4845.6	4845.6	1045.9	3289.2	2720.2	9144.9	8134.8	7565.9	-569.0
Ireland	1322.1	918.1	918.1	382.2	697.6	566.9	1704.2	1615.7	1484.9	-130.8
Italy	3497.0	2480.4	2480.4	1659.4	3073.1	2533.7	5156.4	5553.5	5014.1	-539.5
Luxemb.	37.1	23.0	23.0	20.1	31.8	24.4	57.2	54.8	47.4	-7.4
N'lands	779.6	487.6	487.6	90.5	359.2	215.2	870.1	846.8	702.8	-144.0
Austria	712.0	565.0	565.0	533.0	1012.0	759.4	1245.0	1577.0	1324.4	-252.6
Portugal	561.0	442.6	442.6	553.1	1149.0	984.4	1114.1	1591.6	1427.0	-164.6
Finland	552.0	409.0	409.0	523.0	733.3	661.8	1075.0	1142.2	1070.8	-71.5
Sweden	729.0	470.0	470.0	211.2	456.6	384.1	940.2	926.5	854.0	-72.5
UK	3870.5	2219.3	2219.3	301.7	1458.4	1158.3	4172.2	3677.7	3377.6	-300.1
Cz. Rep.	857.5	857.5	442.1	80.5	80.5	291.5	938.0	938.0	733.6	-204.4
Hungary	1268.2	1268.2	690.8	130.7	130.7	478.0	1398.9	1398.9	1168.8	-230.2
Poland	2851.3	2851.3	2749.4	603.4	603.4	2640.0	3454.7	3454.7	5389.4	1934.6
Slovakia	365.9	365.9	188.3	60.3	60.3	174.0	426.2	426.2	362.3	-63.9
Slovenia	142.2	142.2	131.1	20.1	20.1	76.7	162.3	162.3	207.7	45.4
Estonia	100.9	100.9	89.2	40.2	40.2	86.0	141.1	141.1	175.1	34.0
Latvia	139.0	139.0	126.8	80.5	80.5	201.7	219.5	219.5	328.5	109.1
Lithuania	367.1	367.1	333.2	110.6	110.6	335.6	477.7	477.7	668.8	191.1
Bulgaria	767.9	767.9	648.8	181.0	181.0	556.9	949.0	949.0	1205.7	256.8
Romania	2627.8	2627.8	2382.9	533.0	533.0	2565.8	3160.8	3160.8	4948.8	1788.0
EU-15	33217.6	21534.0	21534.0	8206.5	19890.1	16029.6	41424.1	41424.1	37563.5	-3860.6
NMS	9487.8	9487.8	7782.7	1840.4	1840.4	7406.2	11328.3	11328.3	15188.8	3860.6
EU-25	42705.4	31021.8	29316.6	10046.9	21730.6	23435.7	52752.4	52752.4	52752.4	0.0

The above mentioned specifications of modulation are different with regard to their impact on the net position of EU member states. Table 8 shows, how the net position changes under

application of an obligatory modulation rate of both 5% and 50% (see col. (2) to (5)). Thereby, effects of a 50% modulation rate are depicted for the approach of distributing modulation savings currently applied and for an approach without a minimum limit of 80% (90%) and the guarantee to retain the first fifth of the modulated money in the respective member state (see col. (6) and (7)). A negative value in col. (2) to (7) means that the country in question is a net payer, i.e. it contributes more to the EU than it receives, and vice versa.

Table 8: Financial net position under various modulation scenarios (in mio. €)

	1	2	3	4	5	6	7
	Contribution to EU budget for direct payments under pillar 1	Net position in 2013					
		5% Modulation		50% Modulation		50% Modulation w/o „minimum limit“ and „first fifth“ regulation	
		w/o Mod. in NMS	with Mod. in NMS and EU-15	w/o Mod. in NMS	with Mod. in NMS and EU-15	w/o Mod. in NMS	with Mod. in NMS and EU-15
Belgium	1298	-771	-771	-805	-805	-827	-861
Denmark	824	164	164	96	96	-8	-70
Germany	10308	-4833	-4833	-5023	-5023	-5405	-5928
Greece	668	1115	1096	1308	1117	1434	1305
Spain	3325	998	922	1426	669	1800	940
France	7271	763	763	178	178	-182	-751
Ireland	617	697	697	624	624	616	486
Italy	4602	-1086	-1126	-916	-1309	-708	-1248
Luxembourg	139	-102	-102	-105	-105	-104	-112
Netherlands	1952	-1177	-1178	-1215	-1231	-1196	-1340
Austria	1101	-367	-389	-167	-390	-57	-310
Portugal	521	73	53	368	168	518	353
Finland	707	-152	-158	-120	-184	-88	-159
Sweden	1279	-553	-555	-583	-601	-563	-636
UK	5740	-1903	-1903	-2200	-2200	-2364	-2664
Czech Rep.	292	565	557	565	482	565	361
Hungary	275	993	982	993	878	993	763
Poland	908	1944	2041	1944	2912	1944	3878
Slovakia	132	234	230	234	198	234	170
Slovenia	122	20	22	20	40	20	65
Estonia	34	67	69	67	81	67	101
Latvia	54	85	91	85	138	85	195
Lithuania	48	319	328	319	408	319	510
Bulgaria	108	660	670	660	759	660	917
Romania	382	2246	2331	2246	3098	2246	4034
EU-15	40351	-7134	-7320	-7134	-8996	-7134	-10994
NMS	2354	7134	7320	7134	8996	7134	10994
EU-25	42705	0	0	0	0	0	0

The net position of each member state is calculated as the difference between contributed money and received money. Thereby, the money received is composed of money for direct

payments and an element, which is generated by the transfer of financial means from the first to the second pillar in the course of modulation. Col. (1) shows the contribution of each member state to the EU budget that is required to finance direct payments under the first pillar of the CAP. Under the current CAP (see col. (2)) Germany is the biggest net payer in absolute terms as it receives 4.8 bln. € less than it contributes to the EU. Other important net payers within the EU are the UK (-1.9 bln. €), the Netherlands (-1.2 bln. €), and Italy (-1.1 bln. €). All NMS are net recipients gaining 7.1 bln. € altogether. Thereby, Romania (+2.2 bln. €) and Poland (+1.9 bln. €) benefit most under the current CAP. In case of the EU-15, Greece (+1.1 bln. €), Spain (+1.0 bln. €), France (+0.8 bln. €), and Ireland (+0.7 bln. €) are the biggest net recipients.

In case of 50% modulation in the EU-15 and an exemption of the NMS from the modulation obligation the net position of Germany (-5.0 bln. €), the Netherlands (-1.2 bln. €), and the UK (-2.2 bln. €) is even worse than under 5% modulation (see col. (4)). The strongest losses in absolute terms, however, occur in France, which loses almost 0.5 bln. € compared to the current CAP. Significant gains can be denoted in Spain and Greece, which gain 0.4 bln. € and 0.2 bln. € respectively. Under 50% modulation the redistribution for modulated money gains in importance so that the net position worsens in those countries, which lose money in the course of modulation.

If the NMS are included in the modulation mechanism, the net position in all EU-15 countries worsens, while that of the most NMS improves. Thereby, the loss for the EU-15 and the benefit for the NMS would be stronger, if a modulation rate of 50% is applied (see col. (2) to (5)). For example, Poland would gain only 0.1 bln. € from an inclusion in the modulation obligation when 5% modulation is applied. In contrast, the benefit would be ten times higher in case of a modulation rate of 50%. However, those countries, which get back only the minimum share, i.e. 80% (90%), of the money they modulated, do not suffer from an inclusion of the NMS in the modulation mechanism.

Now, it is interesting to see, how net position of EU member states would develop in the course of 50% modulation, if a minimum limit of 80% (90%) and the guarantee to retain the first fifth of the modulated money in the respective member state is not applied. As shown in col. (6) and (7) the net position worsens in those countries, which have benefited from the “minimum limit regulation” before (Belgium, Denmark, Germany, France, Ireland, the UK, the Czech Republic, Hungary, and Slovakia). In contrast, those countries, which have received more than 80% of the money they modulate, benefit from an elimination of the two above mentioned regulations. Thereby, the situation worsens in all members of the EU-15 and

in the Czech Republic, Hungary, and Slovakia, if the NMS were included into obligatory modulation. In case of 50% modulation and an inclusion of the NMS into modulation the net position in Germany (the UK) amounts to -5.0 bln. €(-2.2 bln. €), if a minimum limit of 80% (90%) and the guarantee to retain the first fifth of the modulated money are in place, while it amounts to -5.9 bln. €(-2.7 bln. €), if this is not the case (see col. (5) and (7)). Denmark and France would even become net payers under an elimination of these two regulations. Poland and Romania, in contrast, would gain significant amounts of money, i.e. increasing their net surplus from 2.9 bln. €to 3.9 bln. €and from 3.1 bln. €to 4.0 bln. € respectively.

3.2.2 Co-financing and reduction of direct payments in the first pillar

Apart from transferring financial means from the first to the second pillar there are other options of redesigning the direct payment system of the CAP. Imaginable options are, for example, an approach of co-financing direct payments in the first pillar as well as a simple reduction of these payments. In this section, budgetary effects of these two approaches will be analysed focussing especially on the net payment position of EU member states.

As mentioned above, Germany is by far the biggest net payer in the enlarged EU under the current CAP. It contributes more than 10 bln. €to the EU budget for direct payments and gets back only slightly more than the half of it (see Table 9, col. (1) and (2)). The biggest net recipients in case of the EU-15 are Greece (+1.1 bln. €), Spain (+1.0 bln. €), France (+0.8 bln. €), and Ireland (+0.7 bln. €). Within the group of the NMS all members are net recipients with Romania (+2.2 bln. €) and Poland (+1.9 bln. €) benefiting the most (see Table 9, col. (3)).

The financial situations in EU member states change when direct payments under the first pillar have to be co-financed by 50% from national funds. Under the co-financing scenario, the EU budget provides only half of the money it provides under the current CAP (see Table 9, col. (5)). The second half has to be co-funded nationally by member states (see Table 9, col. (6)). However, since EU-15 members are assumed to be still subject to an obligatory modulation rate under the co-financing approach, the available money for direct payments and rural development in each member state does not correspond to the sum of col. (5) and (6) but is also dependent on the distribution key for modulated money (see Table 3, col. (7))⁹.

⁹ Note, that col. (2) in Table 9 does not only include the SFP ceilings under the current CAP as shown in Table 2, col. (1), but SFP ceilings adjusted for the money, which has been transferred to the second pillar according to the redistribution key that is applied in the course of 5% modulation. Figures in col. (2) correspond to those in col. (7) (compare also Table 4).

The relation between contributed and received money converges towards 1 across the EU when the co-financing approach is applied. In relative terms, all net payers are disencumbered to some extent, while net recipients have to bear a larger part of the costs for direct payments in the EU. Under the co-financing approach, Belgium and the Netherlands, for example, pay only 70% and 80% more to the EU budget than they receive instead of 150%. The relation between contributed and received money for the NMS rises from 0.1 to 0.4 under the current CAP to 0.6 to 0.9 under the co-financing scenario. Thus, all NMS lose. However, there is no switch from a net-payer to a net-recipient position in any of the EU-25 member states in the course of switching to the co-financing approach.

Table 9: Financial net position under co-financing (in mio. €)

	1	2	3	4	5	6	7	8	9
	Pay- ments to EU to finance SFP under current CAP	Rural dev. + direct pay- ments	Net posi- tion under current CAP	Pay- ments to EU to finance SFP under 50% co- finan- cing	SFP ceilings under 50% co- financing	Natio- nally co-fi- nanced budget	Rural dev. + direct pay- ments	Net posi- tion under 50% co- finan- cing	Benefits / Losses (diff. between col. (8) and (3))
Belgium	1297.5	526.3	-771.3	648.8	265.0	265.0	526.3	-387.5	383.7
Denmark	824.3	988.4	164.2	412.1	498.0	498.0	988.4	78.3	-85.9
Germany	10307.6	5474.9	-4832.7	5153.8	2748.0	2748.0	5474.9	-2426.9	2405.8
Greece	667.9	1782.8	1114.9	333.9	880.6	880.6	1782.8	568.2	-546.7
Spain	3324.8	4322.7	997.9	1662.4	2137.5	2137.5	4322.7	522.7	-475.1
France	7270.7	8033.9	763.2	3635.4	4049.5	4049.5	8033.9	349.1	-414.1
Ireland	617.2	1314.0	696.8	308.6	661.0	661.0	1314.0	344.4	-352.4
Italy	4602.4	3516.0	-1086.4	2301.2	1748.5	1748.5	3516.0	-533.7	552.7
L'bourg	139.0	36.8	-102.2	69.5	18.5	18.5	36.8	-51.2	51.0
N'lands	1951.9	775.3	-1176.6	976.0	389.8	389.8	775.3	-590.5	586.2
Austria	1101.0	734.2	-366.8	550.5	356.0	356.0	734.2	-172.3	194.5
Portugal	520.9	593.8	72.9	260.5	280.5	280.5	593.8	52.8	-20.0
Finland	707.2	555.5	-151.7	353.6	276.0	276.0	555.5	-74.1	77.6
Sweden	1278.6	725.7	-553.0	639.3	364.5	364.5	725.7	-278.1	274.8
UK	5740.2	3837.5	-1902.7	2870.1	1935.2	1935.2	3837.5	-967.9	934.8
Cz. Rep.	292.2	857.5	565.3	146.1	428.8	428.8	857.5	282.7	-282.7
Estonia	33.8	100.9	67.1	16.9	50.5	50.5	100.9	33.6	-33.6
Hungary	274.9	1268.2	993.3	137.4	634.1	634.1	1268.2	496.7	-496.7
Lithuania	53.6	367.1	313.5	26.8	183.6	183.6	367.1	156.8	-156.8
Latvia	47.9	139.0	91.1	24.0	69.5	69.5	139.0	45.5	-45.5
Poland	907.6	2851.3	1943.7	453.8	1425.7	1425.7	2851.3	971.8	-971.8
Slovakia	132.4	365.9	233.5	66.2	183.0	183.0	365.9	116.8	-116.8
Slovenia	122.3	142.2	19.9	61.1	71.1	71.1	142.2	10.0	-10.0
Bulgaria	107.6	767.9	660.3	53.8	384.0	384.0	767.9	330.2	-330.2
Romania	381.9	2627.8	2245.9	191.0	1313.9	1313.9	2627.8	1122.9	-1122.9
EU-25	42705	42705	0.0	21352	21352	21352	42705	0.0	0.0

In absolute terms, Germany benefits most from switching to national co-financing by gaining 2.4 bln. € (see Table 9, col. (9)). Budgetary effects are also very positive in the UK (+0.9 bln. €), the Netherlands (+0.6 bln. €), and Italy (+0.6 bln. €). In case of the NMS, Romania (-1.1 bln. €) and Poland (-1.0 bln. €) would suffer most from the co-financing approach, while Greece (-0.5 bln. €), Spain (-0.5 bln. €), France (-0.4 bln. €), and Ireland (-0.4 bln. €) would lose the most on the side of the EU-15 members.

Apart from the approach of co-financing direct payments under the first pillar of the CAP it is also imaginable that member states agree upon a significant reduction of direct payments for farmers without any compensation after the revision of the current CAP will have taken place in 2009. This is not unrealistic insofar as direct payments have been introduced to compensate farmers for the reduction of institutional prices in the course of the MacSharry reform in 1992. And, as mentioned above, it is questionable whether there will still be a basis for these payments when these price cuts will have taken place about 20 years ago.

Under a scenario of reducing direct payments to farmers by 50% payments from the member states to the EU-budget are also reduced by 50% (see Table 10, col. (1) and (4)). As a result, the money for direct payments that is distributed among member states is also halved (see Table 10, col. (2) and (5)). So far, changes in the budgets are identical to those under the co-financing scenario. However, in contrast to the co-financing scenario, no national co-funding takes place, so that farmers will effectively receive less money when direct payments are simply reduced. Accordingly, market effects under the REDUCTION SCENARIO can be expected to be different from those occurring under the CO-FINANCING SCENARIO. This, in turn, leads most probably to differences in the net trade positions so that expenditures for (revenues from) foreign trade measures are affected to a different extend. However, as mentioned above, it would be highly speculative to assume the existence or even certain levels of tariffs or export subsidies for the year 2013. Thus, budgetary effects that result from changing expenditures for (revenues from) the application of foreign trade instruments are not taken into account in this analysis.

In absolute terms, the effects of the reduction of direct payments compared to the current CAP correspond largely to the effects of co-financing direct payments. Again, Germany benefits most from a reduction of direct payments by gaining 2.4 bln. € (see Table 10, col. (8)). Gains can also be denoted in the UK (+1.0 bln. €), the Netherlands (+0.6 bln. €), and Italy (+0.5 bln. €). All NMS would suffer from a reduction of direct payments compared to the current CAP. Budgetary losses reach from 10 mio. € in Slovenia to 1.0 bln. € in Poland and 1.1 bln. € in Romania. Greece (-0.6 bln. €), Spain (-0.5 bln. €), France (-0.4 bln. €), and

Ireland (-0.3 bln. €) would lose the most in case of the EU-15 members. Small differences between the effects of reducing direct payments (see Table 10, col. (8)) and the effects of co-financing direct payments (see Table 9, col. (9)) are due the different level of direct payments the obligatory modulation is applied on.

Table 10: Financial net position under reduction of direct payments by 50% (in mio. €)

	1	2	3	4	5	6	7	8
	Payments to EU to finance SFP under current CAP	Rural development + direct pay-ments	Net position under current CAP	Payments to EU to finance SFP under 50% co-financing	SFP ceilings under 50% co-financing	Rural develop-ment + direct pay-ments	Net position under 50% co-financing	Benefits / Losses (diff. between col. 7 and col. 4)
Belgium	1297.5	526.3	-771.3	648.8	265.0	263.1	-385.6	385.6
Denmark	824.3	988.4	164.2	412.1	498.0	494.2	82.1	-82.1
Germany	10307.6	5474.9	-4832.7	5153.8	2748.0	2737.4	-2416.4	2416.4
Greece	667.9	1782.8	1114.9	333.9	880.6	891.4	557.4	-557.4
Spain	3324.8	4322.7	997.9	1662.4	2137.5	2161.3	498.9	-498.9
France	7270.7	8033.9	763.2	3635.4	4049.5	4017.0	381.6	-381.6
Ireland	617.2	1314.0	696.8	308.6	661.0	657.0	348.4	-348.4
Italy	4602.4	3516.0	-1086.4	2301.2	1748.5	1758.0	-543.2	543.2
L'bourg	139.0	36.8	-102.2	69.5	18.5	18.4	-51.1	51.1
N'lands	1951.9	775.3	-1176.6	976.0	389.8	387.6	-588.3	588.3
Austria	1101.0	734.2	-366.8	550.5	356.0	367.1	-183.4	183.4
Portugal	520.9	593.8	72.9	260.5	280.5	296.9	36.4	-36.4
Finland	707.2	555.5	-151.7	353.6	276.0	277.7	-75.9	75.9
Sweden	1278.6	725.7	-553.0	639.3	364.5	362.8	-276.5	276.5
UK	5740.2	3837.5	-1902.7	2870.1	1935.2	1918.7	-951.4	951.4
Cz. Rep.	292.2	857.5	565.3	146.1	428.8	428.8	282.7	-282.7
Estonia	33.8	100.9	67.1	16.9	50.5	50.5	33.6	-33.6
Hungary	274.9	1268.2	993.3	137.4	634.1	634.1	496.7	-496.7
Lithuania	53.6	367.1	313.5	26.8	183.6	183.6	156.8	-156.8
Latvia	47.9	139.0	91.1	24.0	69.5	69.5	45.5	-45.5
Poland	907.6	2851.3	1943.7	453.8	1425.7	1425.7	971.8	-971.8
Slovakia	132.4	365.9	233.5	66.2	183.0	183.0	116.8	-116.8
Slovenia	122.3	142.2	19.9	61.1	71.1	71.1	10.0	-10.0
Bulgaria	107.6	767.9	660.3	53.8	384.0	384.0	330.2	-330.2
Romania	381.9	2627.8	2245.9	191.0	1313.9	1313.9	1122.9	-1122.9
EU-25	42705.4	42705.4	0.0	21352.7	21352.7	21352.7	0.0	0.0

4 Summary and outlook

From a financial point of view, it is in the clear interest of the group of NMS to take part in the modulation mechanism as soon as possible. According to the indicators agricultural area and employment as well as national GDP per capita, they should get about 42% of the rural

development budget. Taking part in the modulation mechanism would increase their share from 18% to 19% in the case of 5% modulation and from 8% to 23% in the case of 50% modulation - thus coming closer to the "right distribution". Modulation of direct payments and redistribution of saved amounts in the second pillar will flow into those countries where GDP p.c. is below EU-average and rural development is a "real" need to help countries, which are still on the transition path towards stable market-oriented economies. While the rural development budget for the NMS would increase under inclusion into obligatory modulation, situation for members of the EU-15 would worsen or remain unchanged.

The minimum limit of 80% (90%) and the right to retain the first fifth of the modulated money in the respective member state have an immense influence on the budgetary effects resulting from modulation. Several countries of the EU-15 would receive less than 50% of the money they have to transfer to the second pillar of the EU budget, if the above mentioned regulations are not applied. Most of the NMS, in contrast, would gain. The share of the rural development budget, which is allocated to the NMS under 50% modulation, would then not only amount to 23% but to 32%. Thus, a more consequent redistribution of modulated money in favour of the NMS is prevented by imposing a lower bound for the receipt of modulated money.

Measured in aggregated terms, i.e. in the sum of direct payment and rural development budget, the NMS would get 0.2 bln. € (5% modulation) and 1.9 bln. € (50% modulation) more, if they were included in obligatory modulation than in case of an exemption from modulation, respectively. In case of 50% modulation without a minimum limit of 80% (90%) and without the right to retain the first fifth of the modulated money in the respective member state NMS would even gain 3.9 bln. €. These amounts, in turn, would be losses for the EU-15.

Under the current CAP Germany, the UK, the Netherlands, and Italy are the biggest net payers in the EU. All NMS are net recipients with Poland and Romania benefiting by far the most. In case of the EU-15 Greece, Spain, France, and Ireland are the biggest gainers. In case of 50% modulation in the EU-15 and an exemption of the NMS from the modulation obligation the net position of Germany, the Netherlands, and the UK is even worse than under 5% modulation. The strongest losses, however, occur in France.

If the NMS are included in the modulation mechanism, the net position in all EU-15 countries worsens, while that of the most NMS would improve. Thereby the loss for the EU-15 and the benefit for the NMS would be stronger, if a modulation rate of 50% is applied.

If a minimum limit of 80% (90%) and the guarantee to retain the first fifth of the modulated money in the respective member state is not applied in the course of distributing savings from modulation, the net position worsens in those countries, which have benefited from these regulations before (e.g. Germany, France, and the UK). In contrast, those countries, which have received more than 80% of the money they modulate, benefit from an elimination of the two above mentioned regulations. Thereby, the situation worsens in all members of the EU-15 and in the Czech Republic, Hungary, and Slovakia, if the NMS were included into obligatory modulation. Denmark and France would even become net payers, while Poland and Romania would gain significant amounts of money.

However, apart from transferring financial means from the first to the second pillar there are other options of redesigning the direct payment system of the CAP. Under an approach of co-financing direct payments of the first pillar the EU budget provides only half of the money it provides under the current CAP. The second half has to be co-funded nationally by member states. Under this approach all net payers are disencumbered to some extent. The net position of Germany, for example, would improve by 2.4 bln. €. All net recipients, in contrast, have to bear a larger part of the costs for direct payments in the EU. Thus, all NMS, especially Romania and Poland, as well as Greece, Spain, France, and Ireland lose.

The effects of the reduction of direct payments compared to the current CAP correspond largely to the effects of co-financing direct payments. Again, Germany benefits most and moderate benefits can be denoted for the UK, the Netherlands, and Italy. All NMS, especially Poland and Romania, as well as Greece, Spain, France, and Ireland would suffer. Differences between the budgetary effects of reducing direct payments and the budgetary effects of co-financing direct payments can only be traced back to the different level of direct payments the obligatory modulation is applied on.

According to the financial effects of different approaches of redesigning the CAP payment system, which have been presented in this paper, it is quite easy to assess, which member state will take up which position in the upcoming negotiations after the next revision of the CAP in 2009. It can be expected that governments of the EU-15 members will stand up for a further exemption of the NMS from modulation and for a perpetuation of a minimum bound with regard to the distribution of modulation savings. Most of the NMS, especially Poland and Romania, should claim exactly the opposite. However, since neither the Czech Republic nor Hungary and Slovakia benefit from an inclusion into modulation and from the elimination of a minimum receipt of modulation savings, the group of NMS does most probably not negotiate with one voice. This, in turn, could weaken the position of the NMS.

Whether member states will vote for a higher modulation rate than the one applied under the current CAP will depend much on the political decision of either carrying on supporting first pillar measures or changing the structure of the CAP and switching to a higher support of rural development and/or agri-environmental projects. This in turn could also depend on how direct payments of the CAP will be judged by international trading partners in the near future. In general, a decision in favour of a higher modulation rate and, thus, lower direct payments for farmers under the first pillar would imply that politicians consider the political and economic foundation of the payments as not given any more. From a financial point of view there are almost as many supporters (e.g. Poland, Romania, Spain) as opponents (e.g. Germany, France, UK) of a higher modulation rate.

A system of national co-funding of direct payments under the first pillar can be expected to be on agenda within the upcoming negotiations if net paying EU members decide to reduce their budget deficit by changing their financial position towards the agricultural budget of the EU. Countries that could make such a proposal are first of all Germany and the UK. As in case of a higher modulation rate a reduction of direct payments will only be on agenda if politicians consider the political and economic foundation of the payments as not given any more. If this is the case, potential supporters of this approach could be again Germany, the UK, and other net payers.

5 References

AGRA EUROPE (2006): CAP monitor, London.