

**Title: Does the CAP support cohesion objectives? An examination of the
distributional impact of agricultural support**

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Does the CAP support cohesion objectives? An examination of the distributional impact of agricultural support

Abstract: Using a dynamic multi-product partial equilibrium model, this paper first examines the potential impact of recent policy changes accruing from the mid term review (MTR) of the Common Agricultural Policy (CAP) in 2003, on the cattle and sheep sectors in Ireland. Second, it evaluates the potential impact of the implementation of a CAP, budget neutral, common EU flat area payment across all Member States. The European Commission has signalled that it will be evaluating current differences in the level of support between Member States as, for example, in the explanatory memorandum accompanying the Commission's Health Check proposals the Commission argues that it is "increasingly harder to justify the legitimacy of significant individual differences in the support level which are only based on past support" (CEC, 2008; p.18). This paper demonstrates how there are significant differences in the level of CAP payments per hectare across Member States, as generally farmers in more prosperous Western and Nordic countries receive a much higher level of payment per hectare than farmers in relatively poorer Central and Eastern European countries. In relation to Ireland, similar to most other EU-15 countries, farmers benefit from the current inequitable distribution of payments and the results indicate that any move towards equalising the level of payments per hectare will have a significant negative impact on agricultural production and net trade.

Introduction

The move from coupled payment policy instruments to payments that are decoupled from production in Ireland and in many other countries within the EU has made estimating the future production behaviour of farmers much more challenging. Prior to the move towards the decoupling of direct payments in 2003, income support was linked to production decisions and farmers in the EU, to a large extent, were shielded from fluctuations in the market and agricultural production remained relatively stable. Breaking the link between payments and production, however, is likely to make production more responsive to changes in market prices.

Policy changes such as the shift towards decoupled payments not only have significant effects on agriculture but also rural areas and society more generally (Moreddu et al., 2004; Kantelhardt, 2006; Boel, 2006). Farmers can be viewed as multifunctional providers of a range of commodity and non-commodity goods (Burrell, 2004) as in

addition to providing us with food and other raw materials necessary for our survival and maintaining economic activity in rural areas (Kelch and Normile, 2004), farming activity has environmental (Firbank, 2005; Cocklin et al., 2006), aesthetic (Vanslebrouck et al., 2005) and social functions (Gerowitt et al., 2003). Given the significant and wide-ranging effects of farming activity on the agricultural sector and on society more generally, and the budgetary resources devoted to agriculture within the EU, it is important that the effect of policy changes on agricultural activity be assessed.

Two grassland based sectors dominate Irish agriculture: beef production and milk production. Typically, each accounts for close on one third of overall agricultural output value in Ireland. The other main grassland enterprise is sheep production.¹ This paper, utilising a partial equilibrium model of the EU agricultural sector (AGMEMOD), examines the potential impact of recent changes to the CAP on the cattle and sheep sectors in Ireland. This analysis focuses on the beef and sheep sectors as it was felt that it would be beyond the scope of this paper to discuss the dairy sector which faces a fundamental policy change in the form of EU milk quota elimination. This complicates the analysis of the impact of CAP reform on the dairy sector and means that a concise discussion of the impact is not possible in this paper.²

Secondly, this paper analyses the effect of introducing a common EU wide flat rate payment across all Member States on the cattle and sheep sectors in Ireland. This is calculated as the sum of the currently agreed national budgetary envelopes divided by utilisable agricultural area in the EU-27. The European Council has called upon the European Commission “to undertake a full, wide ranging review covering all aspects of EU spending, including the Common Agricultural Policy (CAP)...to report in 2008/2009” (CEU, 2005; p. 32). One of the possible results from this review is the recommendation of a move towards a more equitable distribution of income support across Member States.

¹ The other major livestock enterprises are pig and poultry production which together account for about a further 10 per cent of agricultural output in value terms. The area devoted to tillage is relatively small at about 10 percent and it also represents about 10 percent of agricultural output in value terms.

² For more details on the potential impact of milk quota reform see http://www.tnet.teagasc.ie/fapri/downloads/pubs2007/outlook2007/_FAPRI-IE2007Aggregate_Baseline.pdf.

Under the current CAP there are large discrepancies between the payment entitlements per hectare between farmers and such differences in the level of support are particularly pronounced between farmers in the EU-15 (the 15 countries in the EU before the expansion in 2004) and farmers in the new Central and Eastern European Member State countries (CEEC). In the explanatory memorandum accompanying the Commission's Health Check proposals (CEC, 2008; p. 18) the Commission argues that it is "... increasingly harder to justify the legitimacy of significant individual differences in the support level which are only based on past support." Given that the CAP is very much an evolving policy, this paper, in the following section, evaluates the potential for further reforms at the end of the current financial perspective in 2013, with a specific focus on potential measures to address differences in the average levels of direct income support to farmers across countries within the EU. Next a description of the research strategy employed will be given before moving to a discussion of the results of our analysis. Finally, the paper will conclude with a discussion of the main findings and their implications for the agricultural sector.

Further reform

The Mid-Term Review of the CAP sets out the budgetary framework until 2013, but the European Commission has signaled that further reform is likely at the end of this period. The overall budgetary cost of the CAP is large, and although its share in the total EU budget has been decreasing, it still currently accounts for 40 percent of the EU budget. Despite its large budgetary cost, the CAP is a policy which only benefits a small, although sensitive, sector resulting in a significant burden on the EU economy. The European Commission is, however, looking to focus more on other issues such as climate change, global security, energy and the Lisbon Agenda and thus there is likely to be significant pressure to reduce the CAP budget at the end of the current financial perspective in 2013.

In addition to an overall reduction in the level of budgetary expenditure on CAP payments, there is also likely to be significant changes in the structure of these payments.

The European institutions have extended the list of objectives of the CAP outlined in the Treaty of Rome and, broadly speaking, stress the need for the preservation of rural public goods, food quality and a greater consideration of the distributional impact of current payments between persons and nations (Bureau and Mahé, 2008). The structure of CAP payments is expected to change in order to have a greater focus on these issues. In particular, further agri-environment and cross compliance measures may be introduced. Under the current EU Financial Perspective (2007-2013) there is a modest shift in budgetary resources devoted to the first pillar (mainly direct income support payments) towards the second pillar (rural development measures including agri-environmental measures). It is highly probable, given the recent emphasis and discussion surrounding rural development, that there will be a further shift of direct payments towards the second pillar of the CAP. In relation to trade, the CAP, as it is currently formulated, has a paradoxical relationship with EU competition policy. There is ever increasing pressure for the EU to remove what is seen by other agricultural exporters as highly protectionist and market-distorting agricultural policies (Ackrill, 2008). This pressure is likely to lead to large tariff cuts with the result that sectors of EU agriculture such as beef will be much more exposed to competition from outside the EU (see Binfield et al., 2008).

In relation to the distributional impact of the CAP, large disparities in payments across farms and Member States are a source of conflict within the EU. The policy of price support and production linked direct payments evident in the EU agricultural sector prior to the introduction of decoupled payments established a pattern of transfers that favoured larger and more intensive farms (Ackrill, 2008). The recent move towards decoupled payments continues to favour the largest and most affluent farmers as payments are based on previous payment receipts under the CAP as defined by the Agenda 2000 reforms. Furthermore, not only is a disproportionate amount of payments being received by the largest farmers there is also an inequitable distribution of payments between Member States.

With enlargement in 2004 the EU-15 effectively ring fenced their own budget receipts and set accession terms under which new Member States received a lower level of support. All things being equal, farmers in the new Member States (those who joined the EU in 2004) receive a lower payment per hectare than those in the EU-15. Gradually this disparity in payments is being phased out as new Member States received 25 percent of what the EU-15 received in 2004 and this is set to rise to an equivalent level of the EU-15 by 2013.

However, as demonstrated in the results section in this paper even by 2013 there will still be significant differences in the average level of direct income support per hectare of utilizable agricultural area across the EU Member States. These differences are most pronounced between the EU-15 and new Member States. This is because the amount of support for farmers is principally based on the levels of production of agricultural commodities that were mainly farmed in old Member State countries during the reference period for the decoupled payments. Furthermore, new Member State countries, for the most part, have lower yields and intensity of production than that generally found in the EU-15. As Bureau and Mahé (2008) report, the political legitimacy of these differences in payments is no longer justifiable as the current distribution of CAP payments across Member States do not contribute to the European Union's cohesion objectives since the generally more prosperous Western and Nordic countries get a higher proportion of payments than poorer new Central and Eastern European Member States.

Using Ireland as a case study, this paper, in addition, to examining the effect on the Irish cattle and sheep sector of the recent changes in the CAP, such as the decoupling of direct payments and the accession of new Member States, also examines the potential impact of adopting a budget neutral, EU wide flat area payment. Ireland currently benefits from the present distribution of payments in that its average per hectare payments is in excess of the EU average and consequently any move towards a budget neutral EU wide flat area payment is likely to pose significant challenges to the Irish agricultural sector.

Research Design

The modelling approach used in this analysis is the development of an econometric, dynamic, multi-product partial equilibrium model (the AGMEMOD model) in which a bottom-up approach is used. Based on a common country model template, country level models have been developed that reflect the specific situation of the agricultural sectors in individual EU Member States. In all country models, agricultural supply and use data as well as policy data for the years 1973-2005 have been collected for all countries with the exception of Cyprus, Malta and Luxembourg and the two newest members namely Romania and Bulgaria who joined in 2007. Problems with data availability meant that these countries have been excluded from the analysis.

For each commodity modelled, and in each country, agricultural production as well as supply, demand, trade, stocks and domestic prices are derived by econometrically estimated equations. In order to take account of the influence of other Member States on a given country market, when the national level market is not considered as the key market in the EU, the internal price is determined as a function of the chosen key price for the EU and the self sufficiency rate for this market and the self sufficiency rate for the key market. In addition, information from other global models (FAPRI, 2008) is used to reflect the influence of the commodity markets in the rest of the world on those of the EU. More precisely, projections of exogenous data relating to macroeconomic series such as exchange rates and GDP, and projections of world prices for agricultural commodities have been incorporated into this model. The national level models have then been combined into a composite EU model. Hence, the final dynamic, multi-market, multi-country composite model developed allows us to generate projections for each Member State, under the assumption of exogenous world prices (for a more detailed description of the structure of the AGMEMOD model the reader is referred to Chantreuil et al., 2005).

In order to analyse the impact of policy reform, data on all types of direct payments that are and were part of the CAP, were collected for each Member State. This was used to

create a database which in a coherent manner across all the Member States incorporated the total budgetary envelopes, the different types of the EU CAP direct support payments, and their allocation from the total budgetary envelopes. The degree to which decoupled payments are expected to impact production decisions is captured via explicit coefficients termed multipliers. Using these multipliers and policy data, a set of country specific variables were developed which calculated the impact of policy instruments on the supply and use of various agricultural commodities. In particular, in the case of Ireland reaction prices for beef and sheep meats were calculated. These variables were then included in the estimated equations in the model. For example, in the case of beef it is assumed that the supply inducing or incentive price faced by farmers is the real cattle price plus the beef reaction price. The reaction price varies according to the degree to which the decoupled payments are assumed to have a supply inducing effect.

Decoupled payments are in the World Trade Organisations (WTO) 'green box' of agriculture related subsidies and thus must adhere to the fundamental requirement that the policy has no, or at most minimal, trade-distorting effects. There is considerable uncertainty, however, as to whether these payments are indeed production neutral. The two most extreme viewpoints relating to the impact of decoupled payments are that firstly they will maintain the same supply inducing impact of previously coupled payments or secondly they will have a zero impact on production behaviour. For the purposes of this paper it is assumed that decoupled payments will have an impact in between these two values. More precisely, across all country models within the EU-15 multipliers are given a value of .5 which means decoupled payments are assumed to have 50 percent of the supply inducing impact of previously coupled payments. The true impact of decoupled payments may differ from this point and in any case the actual effect is likely to deviate across farm systems and regions. That said, it is felt that this serves as a reasonable approximation of the supply inducing impact of decoupled payments and enables projections of supply, demand and prices of various agricultural commodities as far as 2020.

Modelling limitations

Analysing the impact of agricultural policy changes at the farm or market levels using econometric models, such as the AGMEMOD model, provides important insights into the effects of policies. However, the projections produced in this paper are conditional in that they depend on data used on the future evolution of the wider economy (economic growth rates, inflation and currency exchange rates), on assumptions relating to the wider set of policies that affect agriculture (WTO, agricultural policy in non-EU countries). Large shocks to the wider macroeconomy and/or unforeseen changes in agricultural and other policies will affect agriculture and will ex post be “missed” by this analysis.

One further important point is that the accuracy of the results will depend on the degree to which our assumptions relating to the supply inducing impact of decoupled direct payments reflect the behaviour of Irish and EU farmers. Decoupling represents a relatively new policy shift for EU agriculture and there is considerable uncertainty regarding the extent to which these payments are treated by farmers as being ‘truly’ decoupled. It is likely that decoupled payments still maintain a supply inducing effect as in addition to profit-maximisation, farmers are likely to derive utility from a variety of other factors that can influence their activities (Kantelhardt, 2006). Decoupled payments can also influence farmers’ behaviour by increasing overall wealth, decreasing risk aversion or making credit more accessible (Hennessy, 1998; Young and Westcott, 2000; Adams et al., 2001; and Goodwin and Mishra, 2005; Bhaskar and Beghin, 2009). One recent study which examined this issue was by Howley et al. (2010) which found that decoupled payments appear to still have a positive impact on agricultural production, although this effect is less than would be observed if these payments were still fully coupled.

One further point is that changes in agricultural policy that have been agreed, such as the ending of the EU milk quota in 2015 if incorporated in our baseline policy assumptions would alter our baseline projections from those presented here. However, given that such

a policy change would also be incorporated in the alternative policy scenario analysed in this paper such a change is unlikely to significantly alter our analysis.

Results

In terms of model output, this paper firstly provides projections relating to the cattle and sheep sectors as far as 2020 assuming current policies remain in place. With decoupling of direct payments market signals will play a more important role in EU agriculture. This “baseline” scenario is concerned with analysing the effect of these recent changes. Under this scenario the decoupling decision made by Member States in 2005 cannot be changed. The current mix of historic, static and dynamic regional models and hybrid Single Payment models and simplified area payments system models (that apply in most of the new Member States) is assumed to continue for the complete projection period to 2020. The year 2005 was the last year in which all agricultural supply and use data were collected for all Member States and therefore, the model projections in 2020 are compared with this ‘base’ year. The CAP budget and national ceilings remain at the levels as set out in Council Regulation EC 1782/2003.

The second scenario analysed is the effect of introducing a common EU wide flat rate payment per hectare calculated as the sum of the currently agreed national budgetary envelopes divided by utilisable agricultural area in the EU-27. While such a policy will not change the level of overall support within the EU it should, however, result in significant changes at a Member State level. For example, in the case of Ireland such a scenario, if implemented, would result in the average per hectare decoupled direct payment falling from €311 per hectare under the Baseline to €247 per hectare.

Baseline scenario: Cattle

Under the Baseline scenario, despite projected increases in nominal cattle prices the Irish suckler cow herd is forecasted to decline by 25 percent between 2005 and 2020 (see table 1). This is a continuation of the trend evident post decoupling as the Irish suckler cow herd declined by 3 percent between 2005 and 2007. The projected contraction reflects

the decoupling of direct payments and the decline in the real returns to beef farming. This projected contraction contrasts with the evolution of the suckler herd in the years prior to the introduction of decoupled payments as the numbers of suckler cows rose steadily in response to the introduction of coupled direct payments. The Irish dairy cow herd is projected to decline by 13 percent over the projection period. This decrease is due to an increase in milk yields as the milk quota is fixed at 2008/2009 levels for the Baseline analysis. Due to the projected declines in the Irish suckler and dairy cow herds, total cattle ending numbers, cattle slaughter and the calf crop are projected to decline by 30, 21 and 19 percent respectively over the period 2005-2020. As a result of the fall in total cattle slaughter, Irish beef production is projected to decline by 28 percent over the projection period.

Baseline scenario: Sheep

Under the Baseline scenario the decoupling of the ewe premium results in the ending ewe numbers declining by 42 percent over the projection period, despite nominal lamb prices that are projected to increase strongly. The most recent data indicate that between 2005 and 2008 the Irish ewe flock has contracted by almost 22 percent in response to the introduction of decoupled payments. The significant decline in ewe numbers over the projection period (2005-2020) results in the number of lambs produced declining by 44 percent. With lower lamb numbers produced each year the projected volume of lamb and other sheep slaughtering is projected to decrease over the projection period, with slaughtering of sheep in 2020 46 percent lower than in 2005. The reduction in sheep numbers slaughtered results in a projected decline of 40 percent in sheep meat production between 2005 and 2020.

In this analysis, the supply inducing or incentive price faced by farmers is the market price for each agricultural commodity plus the associated reaction price. Therefore, production decreases for both cattle and sheep even though nominal prices increase in our baseline analysis as the move towards decoupling significantly reduces the incentive for farmers to expand production. In other words, even though nominal market prices rise

over the projection period, the payments element of the reaction price falls to the extent that the direction of the overall incentive price is downward.

Table 1: Baseline projections for Livestock Product markets

		2005	2010	2015	2020	Total % change
Beef						
Production	1,000 ton	545.9	468.8	426.4	393.2	-28.0
Beef cows ending stock	1,000 head	1150	1043	951	856	-25
Slaughtering weight	kg/animal	324.0	291.0	294.6	297.5	-8.2
Domestic Use	1,000 ton	89.9	100.0	110.3	116.8	29.9
Consumption/head	kg/head	21.8	22.6	23.4	23.5	7.9
Price	Euro/100kg	136.4	155.4	165.8	171.9	26.0
Sheep meat						
Production	1,000 ton	73.3	57.5	50.0	43.7	-40.3
Ewes ending stock	1,000 head	3208.6	2639.8	2219.4	1849.8	-42.3
Slaughtering weight	kg/animal	20.3	21.0	21.8	22.6	11.4
Domestic use	1,000 ton	18.3	22.0	23.1	24.3	32.9
Consumption/head	kg/head	4.4	5.0	4.9	4.9	10.4
Price	Euro/100kg	152.6	189.4	199.1	204.0	33.7

Source: AGMEMOD Model version 1

Tables 2 and 3 outline the average level of CAP payments per hectare for Member States. Table 2 shows little projected change in the average CAP payment per hectare among old Member State countries. For farmers in new Member States there is a projected significant increase in payments between 2006 and 2013 as the European Commission has agreed to increase CAP direct payments from 25 percent of what the EU-15 got in 2004 to their full entitlement by 2013. The average payment per hectare in the new Member States included in the analysis stood at €59 per hectare in 2006 and this is projected to increase to €183 per hectare by 2013. Therefore, a significant convergence between the levels of budgetary support in new Member States and EU-15 Member states is expected.

However, even by 2013, the majority of new Member States are still projected to have average payments per hectare below those in the EU-15. The average per hectare payment among the EU-15 in 2013 at €308 per hectare, given currently agreed policy and current agricultural area, is estimated to be almost double the average payment per hectare in the new Member States. Even among the EU-15 Member States there are

significant differences in the average payment per hectare. At one extreme are Spain and Portugal, where farmers on average are expected to receive €176 and €150 per hectare respectively in 2013, and at the other extreme are farmers in Greece, Netherlands and Belgium who in 2013 will receive estimated average per hectare payments of €488, €455 and €405 respectively. Due to large tracts of relatively arid landscapes and a relatively large proportion of their land being in agricultural use, Spain and Portugal have a low level of productivity per hectare. Greece, the Netherlands and Belgium have a much higher average per hectare payment due to greater concentration on production of CAP supported commodities during the reference period for the decoupled payments and the higher intensity of production per hectare of agricultural land farmed.

Table 2: Average CAP spending (€) per hectare in the EU-15

	2006	2007	2008	2009	2010 and subsequent years
Belgium	384	393	402	406	405
Denmark	376	375	377	378	378
Germany	332	335	337	339	339
Greece	553	543	532	529	488
Spain	179	179	176	176	176
France	279	282	277	273	272
Ireland	310	311	311	312	311
Italy	258	260	261	262	264
Netherlands ³	226	443	451	454	455
Austria	194	225	228	229	230
Portugal	132	150	150	150	150
Finland	246	246	247	248	247
Sweden	213	237	232	230	230
UK	251	253	255	256	256

³ The level of CAP direct payment expenditure per hectare in the Netherlands increased significantly between 2006 and 2007. The increase in support per hectare was due to the introduction of compensation payments for reductions in the intervention prices of certain dairy products. The large impact of these payments on the level of expenditure per hectare reflects the importance of dairy farming within Dutch agriculture

Table 3: Average CAP spending per hectare in New Member States

	2006	2007	2008	2009	2010	2011	2012	2013
Czech	83	105	131	156	179	203	227	251
Estonia	36	44	57	69	81	94	107	119
Latvia	24	33	41	47	54	61	68	76
Lithuania	41	55	69	83	96	109	122	135
Hungary	77	77	112	133	154	175	196	216
Poland	61	79	99	117	135	153	171	189
Slovenia	88	117	145	173	200	228	255	283
Slovakia	66	83	104	124	142	161	180	199

If the total budgetary envelope to be devoted to the CAP at the end of the current financial perspective in 2013 was divided by the total utilisable agricultural area (2005 Eurostat figures) within the EU, then the average payment per hectare across all Member States would be €247. Under the present system Ireland is estimated to have an average per hectare payment of €311 per hectare in 2013. Thus the EU wide flat area payment policy scenario implies a reduction of €64 (20%) in the average per hectare payment for Ireland. Table 4 compares the levels of production and net trade of both beef and sheep meat under the baseline analysis in 2020 with that projected if a CAP budget neutral EU wide flat rate payment of €247 per hectare was introduced. It is important to note that the value of all payments is in nominal terms so that with positive inflation over the projection period their real value and their supply inducing impact will decrease.

As illustrated in Table 4 the introduction of a CAP budget neutral EU wide flat area payment in 2013 is projected to have a significant impact on the cattle and sheep sectors. The lower payment per hectare results in beef production and net trade being projected to be 10 and 17 percent less than under the Baseline. Sheep meat production and net trade are also projected to be lower under the EU wide flat area payment scenario when compared to the Baseline. By 2020 sheep meat production is projected to be 11 percent less than under the Baseline while net trade is projected to contract by 15 percent.

Table 4: Beef and sheep meat scenario analysis - Results in 2020

	Baseline	EU flat rate	% Change
Beef	1,000 tonnes		
Production	394	354	-10
Net Trade	278	231	-17
Sheep meat	1,000 tonnes		
Production	44	39	- 11
Net Trade	20	17	-15

Source: AGMEMOD Model Version 1

Conclusion

Under the baseline, where current policies continue to 2020 significant changes in the Irish beef and sheep sectors are projected to occur. The decoupling of premiums in 2005 results in the number of suckler cows and ewes being projected to decrease by 18 and 42 percent respectively over the projection period. One potential factor behind the larger decrease in the number of ewes relative to suckler cows are differences in farming systems. Farming sheep is more labour intensive than farming suckler cows and sheep farmers may have more incentive to reduce output or even leave the sector in response to lower real market returns. In addition, there is already a well established long term trend of decline in the sheep sector, with ewe numbers falling significantly since the early 1990s as a result of the introduction of cross compliance obligations initiated to reduce sheep numbers in environmentally sensitive areas. Over the Baseline projection period, the decline in the number of suckler cows and ewes leads to a significant fall in the production of beef and sheep meat.

In Ireland the largest projected impact of the decoupling of direct payments is the reduction in livestock numbers. This should lead to an extensification of farming systems. It has also been suggested that with decoupling, the rational economic response for some farmers may be to abandon land, particularly in marginal rural areas (Osterburg and van Horn, 2006). It seems reasonable, however, to argue that this may not occur on a significant scale as farmers often maintain a certain level of agricultural activity, even when it is not optimal from a purely financial perspective (Hennessy and Thorne, 2005).

In any case, the requirement that farmers maintain their land in good agricultural and environmental condition and satisfy cross compliance criteria to qualify for decoupled direct income support payments will limit land abandonment.

The CAP is very much an evolving policy and the European Commission has signaled that further substantial reforms of the CAP may occur at the end of the current financial perspective in 2013. Reforms could include a reduction in the overall level of support, as well as a more pronounced shift of budgetary resources from the first pillar of the CAP (market support and direct payments) to the second pillar (rural development, including agri-environment). In addition, within the still ongoing Doha Round of the WTO, pressures from agricultural exporters outside the EU is likely to result in a reduction of tariffs which could have significant negative implications for certain sectors such as beef within the EU (Binfield et al., 2008).

One further likely shift in CAP policy post 2013 is a move towards a more equitable distribution of payments between Member States. At the end of the current financial perspective in 2013 there will still be significant disparities between the average per hectare payment to farmers in different Member States. Farmers in new Member State countries (with the exceptions of Slovenia and the Czech Republic) will receive a smaller average payment per hectare than farmers in more prosperous Western and Nordic countries. Given that the distribution of these payments does not support the EU's cohesion objectives or address income inequalities, it is possible that the EU Commission will seek to implement measures to address this imbalance.

To illustrate the impact of introducing a more equitable distribution of payments across Member States, this paper, using the Irish cattle and sheep sectors as a case study, examined the effect of a CAP budget neutral EU wide flat area payment of €247 per hectare. This payment level was calculated as the total level of CAP payments in 2013 divided by the total utilisable agricultural area within the EU in 2005. As expected the adoption of such a policy scenario has a substantial negative effect on the production of commodities such as beef and sheep meat in Ireland

Spain and Portugal and most of the new Central and Eastern European Member State countries will benefit from the implementation of an EU wide flat area payment of €247 per hectare given that their average payments per hectare are less than the EU average of €247. A general conclusion in terms of income distribution is that this policy scenario would result in a transfer from richer Western and Nordic countries to poorer Mediterranean, Eastern and Central European countries. In addition, average productivity per hectare is less in new accession countries than in the EU15. Therefore, at an aggregate level, even though the policy scenario examined here does not result in a change in the overall CAP budget, it seems reasonable to assume that total EU production should fall, to some degree, in response to the implementation of a CAP budget neutral common flat area payment across Member States.

Notes 1: AGMEMOD is funded under the European Commission 6th Framework and by contributions from the partners' institutes throughout the EU. The AGMEMOD Partnership model is an econometric, dynamic, multi-product partial equilibrium model and involves institutes in the EU15 group of Member States. In advance of the accession of the so-called "new" Member States in May 2004 the AG-MEMOD partnership was expanded in 2002 to include research institutes from 8 of the 10 new EU Member States.

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