Teagasc submission made in response to the Department of Agriculture, Food and the Marine CAP Public Consultation Process

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Executive Summary

This submission has two principal parts. The first part outlines Teagasc's responses to some elements of the DAFM Consultative Paper's questionnaire. The Teagasc position in relation to the definition of permanent grassland and areas of natural constraint, the operation of the Greening Scheme and the Young Farmers Scheme is presented.

The second part of the submission describes the findings of an economic analysis of a number of scenarios relating to the Basic Payment Scheme, Voluntary Coupled Support Scheme and Redistributive Scheme. Five scenarios are analysed, each with the same basic convergence model (the so-called internal convergence model) but with differing levels of the Pillar I direct payments budget allocated to coupled support and redistributive payments. The details of the five CAP reform policy implementation scenarios analysed are as follows:

- MIN: assumes the minimum level of redistribution with no Voluntary Coupled Support Scheme (VCSS) and no Redistributive Payment Scheme (RPS)
- MID: half of the allowable VCSS fund is used and paid on both suckler cows and ewes
- MAX: all of the allowable VCSS fund is used and paid on both suckler cows and ewes
- MAX Cows: all of the allowable VCSS fund is used but paid only on suckler cows
- REDIST: assumes no VCSS payments but the full allowable RPS fund is used and an additional payment is made on the first 32 hectares.

In general, greater numbers of farmers gain under the MID and MAX scenarios relative to the MIN scenario. However, for most farms the income changes (gains and losses) are small, i.e. less than 10 percent, of those experiencing more substantial income changes, the effect tends to be negative rather than positive. Similarly with farm output, approximately 25 percent of aggregate farm output is generated by farms that would lose 10 percent of their income or more under the MIN scenario, with the proportion increasing to 30 percent of output under the MAX scenario. This suggests that those farms that gain from the coupling of direct payments to production tend to account for a smaller proportion of output than those that lose.

The results show that, as expected, Cattle Rearing and Sheep farms benefit from coupling and would experience higher incomes under MAX relative to MID or MIN. Average Cattle Rearing farm income increases by €750 going from MIN to MAX, but the average income decreases by €1,000 on Tillage farms, by €750 on Dairy farms and by €200 on Cattle Other farms. However, an income gain of €750 represents a larger proportion of income on Cattle Rearing farms than on Dairy farms. While coupled payments increase the profitability of suckler cow production, the effect is found to be marginal. For all farmers the net benefit of the coupled payment is less than the gross amount of the VCSS coupled payment. On Cattle Rearing farms that are currently loss making the receipt of the coupled payment is often insufficient to make them profitable.

Over 50 percent of farms would experience an increase in their income under the REDIST scenario relative to their current position and up to one-third of farmers would see their income increase by more than 10 percent. However, those farms that gain the most tend to

account for a relatively small proportion of output. The one-third of farms that would experience a more than 10 percent increase in their income account for 11 percent of national output, while those losing 10 percent of their income or more account for almost 40 percent of total farm output. The negative impact of the REDIST scenario on farm output is even more pronounced in certain sectors. Less than 1 percent of Tillage farms would experience an income increase of 10 percent or more under the REDIST scenario, while 38 percent of Tillage farms would see their income falling by 10 percent or more. Furthermore, 61 percent of crop output is generated on farms losing 10 percent of their income or more.

Glossary

ANCS	Areas of Natural Constraint Scheme
BPS	Basic Payment Scheme
CAP	Common Agricultural Policy
CSO	Central Statistics Office
DAFM	Department of Agriculture, Food and the Marine
EFA	Ecological Focus Areas
EU	European Union
GPS	Green Payment Scheme
MFF	Multiannual Financial Framework
NFS	National Farm Survey
RPS	Redistributive Payment Scheme
SFS	Small Farmers' Scheme
SPS	Single Payment System
SFP	Single Farm Payment
VCSS	Voluntary Coupled Support Scheme
YFS	Young Farmers' Scheme

1 Introduction

The CAP reform agreement of June 2013, and specifically the agreement on the Direct Payments Regulation, presents EU Member States with choices as to how to implement the new direct payments regulation. Within the regulation there are three mandatory payment schemes - Basic Payment Scheme (BPS), Greening Payment Scheme (GPS) and the Young Farmers' Scheme (YFS) that Member States must implement and four optional payment schemes - Voluntary Coupled Support Scheme (VCSS), Redistributive Payment Scheme (RPS), Areas of Natural Constraint Scheme (ANCS), and Small Farmers' Scheme (SFS) that Member States can choose whether or not to implement.

Within each of the mandatory and optional schemes there are further choices in terms of how these schemes are implemented by Member States. For example, under the optional VCSS, Member States have a choice over how much of the national direct payment ceiling should be allocated to this scheme (up to a maximum of 8%) and what agricultural activities the payment is to be coupled to.

In July 2013 the Department of Agriculture, Food and the Marine (DAFM) launched a CAP reform public consultation process. As part of this process the Department published a summary of the CAP reform agreed politically in June 2013 (DAFM, 2013a), a guide to the financial ceilings under the direct payments regulation (DAFM, 2013b) and a consultative paper on the CAP reform outcome (2013c). This last document includes a questionnaire that those responding to the DAFM call for submissions are asked to use in framing their contribution. In the DAFM consultative paper's questionnaire there is a total of 44 questions relating to the Direct Payments regulation. Many of these questions are beyond the remit of Teagasc as a public sector body to answer. However there are questions posed within the DAFM consultative paper which Teagasc as the Irish Agriculture and Food Development Authority is well placed to provide input on.

This submission has two principal parts – the first part relates to Teagasc's responses to elements of the DAFM consultative paper questionnaire that are not explicitly redistributive (Section 3) and the second part is based on economic analysis of the more explicitly redistributive elements of the CAP reform implementation options associated with two optional elements of the CAP reform agreement - the Voluntary Coupled Support Scheme (VCSS) and the Redistributive Payment Scheme (RPS). It is important to note, however, that even where the issues addressed are of a technical nature, e.g. "the Definition of Permanent Grassland and Pasture", policy choices with regard to these issues will have an impact on the distribution of direct income support payments amongst Irish farmers.

There are specific questions within the questionnaire that Teagasc does not address in its submission. These questions and the different sections of this submission within which the numbered questions in the DAFM questionnaire are addressed are set out in Table 1.

Table 1: DAFM Consultative Paper Questionnaire Questions addressed in Submission

	Question No.	*Not Addressed*	*Section 3*	*Section 4*
Definition of Permanent Grassland	1, 2, 3		X	
Active Farmer	4	X		
Flexibility between Pillars	5, 6	X		
Allocation of Entitlements under the Basic Payment Scheme	7, 8, 9	X		
Convergence	10 - 15			X
National Reserve	16	X		
National Reserve	17		X	
Transfer of Entitlements	18	X		
Redistributive Payment	19, 20, 21			X
Greening	22, 23, 24		X	
Permanent Grassland	25		X	
Ecological Focus Areas	26, 27, 28		X	
Young Famers' Scheme	29, 30, 31, 32		X	
Coupled Support	33, 34, 35, 36			X
Small Farmers' Scheme	37	X		
Small Farmers' Scheme	38, 39, 40		X	
Areas of Natural Constraint	41, 42	X		
Areas of Natural Constraint	43, 44		X	

2 Background

The CAP reform agreement on the Direct Payments regulation allows for a total of 7 schemes, 3 of which are mandatory and 4 of which are optional. With each of the mandatory and optional schemes there are choices to be made by Member States regarding implementation. In this section we briefly review the schemes and the shares of the national financial ceiling that can be associated with each scheme.

The mandatory elements of the Direct Payments regulation relate to the Basic Payment Scheme (BPS), the Greening Payment Scheme (GPS) and the Young Farmers' Scheme (YFS). Under the reformed CAP Member States can choose to implement a convergence model under which levels of income support per hectare allocated under the BPS fully converge on a national or regional average level by 2019 or they can choose to implement an internal convergence model under which levels of direct income support under the BPS converge on but do no reach a common rate by 2019. Under this latter model, where an initial unit value of entitlement is less than 90% (or 100%) of the national average, this unit value is increased by at least 1/3 of the difference between the initial unit value's level and 90% of the average level (or 100% of the average level) by 2019. All entitlement unit values must reach at least 60% of the national average entitlement value under the BPS by 2019. The increases in the BPS payment per hectare

received by farmers under the internal convergence model are "funded" by decreases in the BPS payments received by farmers with initial BPS unit values that are greater than average. The magnitude of the proportionate decreases in unit value imposed on farmers with above average initial unit values is that which in aggregate is sufficient to fund the aggregation of the individual farm level gains in BPS payments under internal convergence.

The share of the national direct payments financial ceiling that is allocated to the BPS depends on the share of the national direct payments financial ceiling allocated to the other mandatory and optional schemes. The share allocated to the BPS is the balancing item in a fixed budgetary ceiling. If the share allocated to another scheme increases the share allocated to the BPS must decrease. If all optional schemes are allocated the maximum allowed share of the national ceiling, the GPS receives its minimum 30% of the ceiling and the YFS its maximum allowed share of the national ceiling (2%) the proportion of the direct payments ceiling allocated under the BPS can be as low as 25%. Alternatively, if no optional schemes are implemented the share of the national direct payments financial ceiling allocated under the BPS can be as high as 68%.

Member States must also allocate at least 30% of their direct payments budget to the GPS. The allocation of this budget can be on a flat area basis (meaning that each eligible hectare by 2019 would attract the same level of "greening" payment) or the allocation can be on a basis proportional to BPS receipts under the implementation of the internal convergence model. In the latter case farm level receipts under both the BPS and GPS are determined by the internal convergence model.

Each Member State must have a Young Farmers Scheme (YFS), however the budget allocation to this scheme is not mandated within the agreement; rather a maximum allocation is set out (2%). The extent to which a Member State would need to allocate the maximum share of the budget allowed to the YFS will depend on the implementation choices allowed for under the agreement (see the discussion in section 3).

There are 4 optional schemes under the agreement on the direct payments regulation these are the voluntary coupled support scheme (VCSS), the redistributive payments scheme (RPS), the areas of natural constraint scheme (ANCS) and the small farmers scheme (SFS). For these schemes there are maximum amounts of the Pillar I direct payments budget that can be allocated, however Member States retain the discretion over the magnitude of the budget allocated (within the maximums) and over important implementation details of the schemes. The maximum, and where applicable the minimum, direct payments ceiling shares of each of the mandatory and optional direct payment schemes are presented in Table 2.

Table 2 National Direct Payment Financial Ceiling Shares: Maximums & Minimums

		National Financial Ceiling Share
Basic Payment Scheme (BPS)	Mandatory	Variable
Greening Payment Scheme (GPS)	Mandatory	Minimum 30%
Young Farmers Scheme (YFS)	Mandatory	Maximum 2%
Voluntary Coupled Support Scheme (VCSS)	Optional	Maximum 8%
Redistributive Payment Scheme (RPS)	Optional	Maximum 30%
Areas of Natural Constraint Scheme (ANCS)	Optional	Maximum 5%
Small Farmers' Scheme (SFS)	Optional	n.a.

3 Technical issues

In this section issues and questions in the DAFM consultative paper that were judged to be of a more technical nature are addressed. As noted earlier these issues often have direct incomes support distributional implications. Subsections on each of the blocks of questions identified in Table 1 are used to address the issues raised in the DAFM consultative paper (DAFM, 2013c).

3.1 Definition of Permanent Pasture and Grassland (Q1, Q2 and Q3)

Q1 Should land where 'grasses and other herbaceous forage' are not predominant be considered as permanent grassland and consequently be eligible land for the purposes of direct payments?

Q2 If land where 'grasses and other herbaceous forage' are not predominant is considered as permanent grassland, should Ireland apply a reduction coefficient so that the declared number of hectares converts into a reduced number of eligible hectares?

Q3 Should Ireland apply a reduction coefficient to permanent grassland which is located in areas of natural constraints due to difficult climate conditions especially due to altitude, poor soil quality, steepness and water supply?

The areas which could be deemed eligible for the purposes of direct payment but where "grasses and other herbaceous forage" do not predominate in an Irish context are taken to refer to generally upland areas where heather predominates but could also include limestone pavement in karstic regions such as the Burren. In both types of landscape grazing is an integral part of landscape and habitat maintenance and where grazing is shown to be currently taking place they are eligible for direct payments under the SPS. The full inclusion of such areas as eligible for direct payments purposes would be consistent with the current implementation of the CAP and its definition of eligible area.

Estimating the magnitude of a reduction coefficient to be applied to such areas on the basis of agronomic or environmental attributes would be a large exercise. While the implementation of such an adjustment would prevent large windfall gains from accruing

to land holders with large amounts of currently ineligible land, such concerns are likely to be addressed in a less administratively burdensome manner via the implementation of the internal convergence model that will limit the increase in entitlement values under the BPS to 60% of the average BPS payment level per hectare..

There seems little basis for applying a reduction coefficient to permanent grassland located in areas with natural constraints. Under the internal convergence model the level of direct income support remains largely determined by historical levels of support under the SPS. Many farms in areas of natural constraint, due to the physical characteristics of their holding, were unable to farm at intensity levels during the Fischler reform reference period that would have led them to be allocated high levels of SPS entitlement per hectare. Given that the capacity to generate market based income from agricultural activity in such areas is likely to be lower than in areas without natural constraints it would not appear to make any sense to reduce the entitlement of farmers in such areas to direct payment income support. The application of a reduction coefficient to permanent grassland located in such areas would, other things equal, further disadvantage such farms in terms of decoupled direct income support per hectare.

3.2 National Reserve (Q17)

Q17 Should Ireland apply additional criteria for 'young farmers' and for 'farmers who commence their agricultural activity' as regards appropriate skills and/or educational requirements?

The national reserve is to be created by the allocation of up to 3% of ceiling available to the BPS in 2015, in subsequent years the reserve is replenished by unused entitlements and potentially by the application of a clawback on entitlement transfers (see Q18). Member States may add further criteria to the eligibility criteria set out in the agreement. The additional criteria that should apply in determining eligibility for payments funded from the national reserve should be equivalent to those that are currently applied to determine eligibility for preferential tax treatment of farm transfers. These additional eligibility criteria should be harmonised with the criteria for eligibility for payments under the aegis of the mandatory Young Farmers' Scheme (see section 3.7).

3.3 Transfer of Entitlements (Q18)

Q18 Should Ireland apply claw-back to entitlements transferred without land? If so, to which one or more types of transfer should claw-back be applied?

In principle the application of a clawback on entitlement transfers (without land) is a sensible means of ensuring that the national reserve has sufficient funds over the course of the period 2014-2020. The rate at which any clawback is applied should however not be such that the funds raised are in excess of those likely to be needed to address the issues for which the national reserve is designed to deal with.

3.4 Greening (Q22, Q23 and Q24)

Q22 Should the greening payment be made on a flat-rate basis or as a fixed percentage of a farmer's Basic Scheme payment?

Q23 Should Ireland restrict the option of farmers using 'equivalent practices' to meet the greening measure requirements?

Q24 Should Ireland use National Certification schemes enabling farmers to meet their greening measure requirements?

Proportional greening, whereby individual greening payments received by farmers are in proportion to the subsidies received under the BPS will see those farmers in receipt of the largest BPS payments receiving the largest "greening" payment. In so far as such farmers are those likely to incur higher costs to comply with the greening criteria a proportional approach to greening would seem to be warranted on the basis of the additional variable costs incurred.

However, the provision by farmers of environmental goods and services as well as the costs of complying with greening criteria are likely to vary from farm to farm. To the extent that large extensive farms supply valued environmental goods and services the low level of greening payment that these farms would receive under the proportional greening model may adversely affect their willingness to provide such environmental goods and services on an ongoing basis. Whether applied on a proportional or a flat rate basis, the Greening Payment Scheme (GPS) is an untargeted scheme. in effect. Untargeted schemes are unlikely to succeed in changing the level of environmental goods and services supplied by Irish agriculture or correctly compensate farmers for additional compliance costs associated with the Greening criteria.

Despite the fact that (under proportional greening) tillage farmers on average will be amongst the Irish farmers with the largest greening payment levels per hectare, they are also the farmers that will have to incur the greatest greening compliance costs in Irish agriculture. An appendix to this submission provides more detailed information (based on the 2011 Teagasc NFS) on the number of farms with a tillage enterprise that are likely to be negatively affected by the crop diversity and the ecological focus area provisions of the new CAP greening payment criteria.

Regarding the use of equivalent practices (Q23) and national certification measures (Q24), for most Irish farms satisfaction of the greening criteria will not lead to large additional costs of compliance (except in the case of some tillage farmers, see the Appendix to this submission). There would be additional administrative costs associated with allowing farmers to meet greening criteria through these routes. However where farms are green by definition under the agreement (e.g. organic) and such a designation is associated with a national certification scheme, such measures should continue to enable farmers to meet greening criteria.

3.5 Permanent Grassland (Q25)

Q25 Should the obligation for the maintenance of permanent grassland be applied at national, regional, sub-regional or individual farmer level in Ireland?

Member States must ensure that the ratio of permanent grassland to total agricultural area (established in 2012) does not decline by more than 5% when measured at one of national, regional, sub-regional or individual farm levels. Member States have the option to choose at which level of spatial aggregation the ratio is established. Given that at a national level the 5% is unlikely to be exceeded but that at an individual farm level there may be instances where a farm responding to market opportunities would exceed the 5% threshold, it may make sense to apply the limit at a level above that of the individual farmer. How any penalties arising from exceeding the 5% threshold would be allocated is also an issue that should be considered. Should farms, which under a regional or national level implementation of the permanent grassland, did not exceed the 5% threshold of reductions permanent grassland on their farms, suffer negative consequences (in terms of direct payments under the GPS) if the actions of other farmers led to the national or regional 5% threshold? Any additional administrative and/or monitoring burdens associated with the implementation of the Permanent grassland threshold at scales other than the individual farm scale should also be considered.

3.6 Ecological Focus Areas (Q26, Q27 and Q28)

Q26 Which of the following areas should be considered as an eligible area in Ireland?

- *Land laying fallow;*
- *Terraces;*
- *Landscape features (hedgerows etc), including such features situated adjacent to the arable land;*
- *Buffer strips including buffer strips covered by permanent grassland*
- *Areas of Agro-forestry that receive support under Article 44 of Regulation (EU) No 1698/2009;*
- *Strips of land along forest edges;*
- *Areas of short rotation coppice with no use of mineral fertilizer and/or plant protection products;*
- *Afforested areas in accordance with the provisions of Article 25(2)(b)(ii) – SPS eligible afforestation.*
- *Areas of catch crops or green cover established by the planting and germination of seeds;*
- *Areas of nitrogen fixing crops such as protein crops.*

Q27 Should Ireland provide for collective arrangements to meet the EFA obligations?

Q28 Should Ireland provide for the regional arrangements to partially meet the EFA obligations?

In general, Irish farmland contains a higher amount of common farmland habitats than many equivalent types of EU farming systems, although less is known about tillage than grassland systems. It would be beneficial (both for the cost-effectiveness and environmental sustainability of the farming enterprise) for these existing farmland areas to be considered as EFA, rather than imposing a requirement to create new EFA that may be of lower ecological quality. Here, we provide specific comments on each of the specific areas that are listed in the DAFM Consultative Paper:

- Land laying fallow- this land should be eligible for consideration as EFA, provided that it is managed for farmland wildlife
- Terraces: these are not relevant to Irish situation.
- Landscape features (hedgerows etc), including such features situated adjacent to the arable land: Such areas should be eligible for inclusion as EFA, the current restrictions on the width of such features (e.g. hedgerows) under the SPS should not apply if these features are EFA (provided these features are managed for farmland wildlife).
- Buffer strips including buffer strips covered by permanent grassland: These should also be eligible for inclusion in EGA provided that they are managed for biodiversity and/or water quality.
- Areas of Agro-forestry that receive support under Article 44 of Regulation (EU) No 1698/2009: These areas should be eligible as EFA provided that they do not replace existing farmland habitat of conservation value.
- Strips of land along forest edges: Yes these should be eligible as EFA.
- Areas of short rotation coppice with no use of mineral fertilizer and/or plant protection products: These areas should be eligible as EGA since they can promote wildlife and function as a buffer strip when adjacent to watercourses. However, they should not replace existing farmland habitat of conservation value.
- Afforested areas in accordance with the provisions of Article 25(2)(b)(ii) – SPS eligible afforestation: These areas should not be eligible for inclusion in EFA.
- Areas of catch crops or green cover established by the planting and germination of seeds: These areas should be eligible for inclusion as EFA if they are not intended for use as grazing land but are rather intended to deliver on specified environmental objectives, and provided that they do not replace existing farmland habitat of conservation value.
- Areas of nitrogen fixing crops such as protein crops. In Ireland, protein crops are dominated by peas and beans. The total area planted in 2010 was approximately 4,500 ha (circa 0.1 percent of total agricultural area). Teagasc recommends that nitrogen is not added to these crops. Thus, Teagasc could recommend inclusion of nitrogen-fixing protein crops as they address the specific environmental objective of a land use type that reduces greenhouse gas emissions.

Other areas that could also be considered as potential EFA would be

- Margins along permanent field boundaries that are not defined as landscape features
- Species-rich grasslands
- Other wildlife habitat areas that are not defined as permanent grassland and pasture, including scrub, woodland, bog and wet rushy meadows that currently area ineligible for support under the SPS.

Should Ireland provide for collective arrangements to meet EFA obligations (Q27)? Collective arrangements involve groups of local farmers co-operating toward the management of a landscape-scale environmental issue. In terms of improving the

effectiveness of policy measures, this is likely to enhance effectiveness to a considerable extent. Examples include catchment-scale approaches to manage water quality and aquatic biodiversity, and multi-farm approaches to manage farmland habitats and rare species with local distributions. For this reason, Teagasc suggest that collective agreements should be encouraged and included in Agri-Environment Schemes (under Pillar II). In the case of the specific conditions of EFA implementation in Ireland (which will be mostly related to larger tillage farms), they should be considered as an option, but in practice they may be of very limited practical relevance in Ireland.

Should Ireland provide for regional arrangements to partially meet the EFA obligations (Q28)? Such arrangements should be allowed since this would allow existing features of ecological benefit to contribute to the EFA obligations and lessen the need for creation of new EFA. In general, Irish farmland has a relatively high proportion of ecological features (compared to EU averages on comparable systems). Provision for regional arrangements would be economically beneficial for a farming enterprise, and also help to conserve existing ecological features that may be of higher ecological value than newly established EFA.

3.7 Young Farmers' Scheme (Q30, Q31 and Q32)

> Q30 Should Ireland apply additional criteria for the Young Farmers Scheme as regards appropriate skills and/or educational requirements?
>
> Q31 What is the maximum number of hectares between 25 and 90 to which the Young Farmers payment should be applied?
>
> Q32 Which of the four methods for calculating the payment should be applied in Ireland?[1]

The recently published Census of Agriculture 2010 reveals that the age profile of Irish farming is getting older. To encourage the rejuvenation of agriculture in Ireland (and the wider EU) the June 2013 Agreement requires all Member States to have a Young Farmers' Scheme (YFS). There are a number of options open to Member States in terms of how they implement the YFS and over the maximum area over which the YFS payment can be claimed. The different implementation options are likely to imply different levels of expenditure on the YFS in an Irish context. It is possible that one or more of the four YFS payment options and/or the use of a maximum area of 25 hectares on which to claim the YFS payment (as opposed to the maximum allowed 90 hectares) could lead to a level of expenditure less than the 2% of the national direct payments ceiling maximum.

Option A will link the value of the YFS payment to the historical value of SPS entitlements. It is not clear why it is necessary to differentially incentivize generational change on the basis of historically held SPS entitlements.

[1] Details of the four different implementation options under the YFS can be found on pages 8 and 9 of the DAFM Consultative Paper (DAFM, 2013c).

Option D, whereby the YFS is an annual lump sum payment based on 25% of the national average payment per hectare (based on the total national ceiling) multiplied by a fixed number of hectares. The fixed number of hectares allocated to all participating farmers is the same and is calculated as the total number of eligible hectares of those eligible for the scheme in the first year divided by the number of farmers applying for the scheme in the first year. The one of nature of the fixed number of hectares calculation may create incentives for young farmers to artificially increase the size of their holding in the first year of the YFS operation. On this basis options B or C would appear to be preferable to options A or D.

A choice to allocate the maximum budget possible to the YFS, either as a function of which of the four YFS options implemented or the maximum claim level, has consequences for the size of the financial ceiling available to fund the BPS. Due to unavailability of data on potential farm successors and their farm areas it has not been possible to analyse in detail the distributional impact of the mandatory YFS – however given the information to hand on the age distribution of Irish farmers most will be ineligible for this payment.

The criteria (including additional educational and training criteria) that will determine eligibility for the YFS should be the same as those that will apply for the preferential eligibility of young farmers to entitlements from the National Reserve (see section 3.2).

3.8 Small Farmers' Scheme (Q37, Q 38, Q 39 and Q40)

Q 38 If so, should farmers with payment below €1250 be automatically included in the scheme (with option to opt out)?

Q 39 Which of the four methods for the calculation of the payment (a, b, c or d) should be applied?

Q 40 If one of options c. or d. is selected, should payments below €500 be rounded up to €500?[2]

The Small Farmers' Scheme (SFS) is an optional scheme. If applied in Ireland it would reduce the administrative burden on farmers with very low levels of direct payment entitlements. It may however have consequences for agricultural land mobility and impede restructuring of agricultural holdings since farmers receiving the small farmers' scheme payment would be required to have land (entitlements) on which the SFS is established. If implemented farmers with total payments less than or equal to the €1,250 threshold should be automatically included in the scheme with an option to opt out if they choose it. Option C is preferred on the basis of simplicity in that eligible farmers would receive the same payments on the same basis as all other farmers but without the administrative burdens or the necessity to meet the greening criteria that apply to the farmers that are ineligible for the SFS.

[2] Details of the four implementation options under the optional SFS can be found on page 10 of the DAFM Consultative Paper (DAFM, 2013c).

3.9 Areas of Natural Constraint Scheme (Q41, Q 42, Q 43 and Q 44)

> Q43 Should the payment be allocated to areas of natural constraints or be restricted to specific subdivisions within such areas?
>
> Q44 If applying the measure, should Ireland set a maximum number of hectares per holding to which the payment is applied and, if so, what should that maximum be?

Due to lack of data it has not been possible to analyse the distributional implications of implementing the optional Areas of Natural Constraint (ANC) Scheme.

This Pillar I measure, if implemented, would be in addition to payments made under a Pillar II *Rural Development Aid for Areas of Natural Constraint*. The decision to implement an ANC scheme under Pillar I should be made in conjunction with the decision on the priorities for Ireland's Rural Development (Pillar II) programme and the level of funding available for areas of natural constraint under Pillar II. Due to the voluntary nature of the Pillar I ANC scheme the decision to implement the Pillar I ANC scheme will necessarily reduce the size of the budgetary ceiling available to fund the BPS for which all farmers are eligible. The discussion of Q3 in Section 3.1 pointed the reduced ability of farms in areas of natural constraint to carry high levels of stock and the consequence of this for SPS entitlement levels. In so far as the application of the *internal convergence model* leads to significant increases in levels of entitlements per hectare in areas of natural constraint, the need for additional optional schemes that advantage farms in such areas is reduced.

4 Analysis of CAP Reform Implementation Options

In this section the impact on the distribution of direct payment income supports, family farm income and agricultural output of a defined set of CAP reform implementation options are analysed using two datasets. The first dataset used comprises of individual and anonymised farm records for 2010 from the Single Payment System database augmented with linked anonymous farm level data from the Animal Identification and Movement System (AIMS) database and the Sheep and Goat census database. The second dataset used is the Teagasc National Farm Survey (NFS). The Teagasc NFS is an annual representative survey of Irish farmers use to collect and report official statistics on agricultural output, costs and farm.

The two datasets and the analysis conducted with each are complementary. The first dataset allows us to derive the per hectare and per unit of agricultural activity subsidies associated with each of the CAP reform implementation scenarios analysed and allows for the analysis of the implications of different CAP reform implementation options on the distribution of direct income support subsidies across the 132,752 farmers within the SPS system. The Teagasc 2010 NFS sample is a stratified random sample of the Irish agricultural farm population and its sampling frame is designed to be representative of 98% of Irish agricultural production. However, because the Teagasc NFS sampling frame is narrower than the full population of Irish farms that are eligible for direct income supports under the CAP it cannot be used to derive the per hectare and per unit of agricultural activity payment levels associated with different CAP reform implementation options. The key advantage offered by the Teagasc NFS that is exploited

in the analysis presented in this submission is the capacity to provide microeconomic information on agricultural output and family farm income levels. While the SPS database contains information on standardised output levels for each farm, the absence of cost of production information (such as that contained in the Teagasc NFS) means that it cannot provide information on the income and potential output impacts of a CAP reform policy implementation choice.

The remainder of this section is structured as follows in Section 4.1 we define the 5 CAP reform implementation scenarios analysed. This is followed in Section 4.2 by a brief description and the results of the analysis undertaken using the SPS dataset. In Section 4.3 the analysis undertaken using the Teagasc NFS dataset and the results obtained are presented. Section 4.4 summarises the research findings and links the analysis presented in Sections 4.2 and 4.3 to the questions contained within the DAFM Consultative paper questionnaire.

4.1 CAP Reform implementation scenarios analysed

As outlined in the DAFM Consultative paper there are a wide range of implementation choices facing Ireland (and other Member States) relating to the Direct Payments regulation. Teagasc has not attempted to analyse all of the possible CAP reform implementation options. The discussion in Section 3 addresses some of the questions raised in the DAFM consultative paper and in this Section of the submission we report the results of the analysis of 5 CAP reform implementation scenarios that examine the impact of policy choices relating to the optional *voluntary coupled support scheme* (VCSS) and the *redistributive payment scheme* (RPS).

In all of the scenarios analysed the internal convergence model is used to determine farm level entitlement levels under the *Basic Payment Scheme* (BPS) and the implementation of the *Greening Payment Scheme* (GPS) is proportional to the BPS. This means that a farmer's GPS payment per hectare is proportional to their BPS payment level per hectare with the proportionality factor applied to all farms equal to the ratio of the budgetary ceiling allocated to the GPS (fixed at 30% of the national payment ceiling) and the budgetary ceiling available to the BPS. This ratio will vary across the different CAP reform implementation scenarios because the budgetary ceiling available to the BPS is a function of the budget allocated to the optional VCSS and RPS.

In all of the scenarios analysed the *internal convergence model* uses a minimum payment level per hectare for 2019 equal to 60% of the average BPS payment level per hectare. In all of the scenarios farmers with initial BPS unit values of between 90% and 100% of the average BPS payment level see no change in their BPS payment level under the internal convergence process. Farmers with less than 90% see their BPS payment level increase over the period 2015 to 2019, while farmers with initial BPS payment levels per hectare in excess of the average level see their BPS payments per hectare decline over the period 2015 to 2019.

In all of the scenario analysis presented below we look at the income support distribution, family farm income impacts and potential agricultural output impacts using

the financial ceilings for 2019 that are detailed in DAFM (2013b). This means that the deduction of up to 3% of the BPS ceiling in 2015 to fund the National Reserve does not complicate our analytic outcomes.

The five scenarios analysed are outlined in Table 3. The first scenario analysed is called MIN. In this scenario no optional scheme is implemented (the budgetary allocation to the VCSS and RPS is set to zero). Under this scenario the share of the national direct payment ceiling that is allocated via the Basic Payment Scheme (BPS) is maximised. With proportional greening and an assumption that the share of the national ceiling allocated to the Young Farmers' Scheme (YFS) is zero, 100% of the national direct payment ceiling is allocated using the *internal convergence model*.

Three of the scenarios (MID, MAX and MAX Cows Only) look at different implementations of the voluntary coupled support scheme (VCSS). The maximum share of the direct payments ceiling that can be allocated to the VCSS in Ireland is 8%. In the MID scenario 4% of the direct payments financial ceiling in 2019 is allocated to the VCSS (the mid point in the range 0%-8%). In the MAX scenario we allocate 8% of the national direct payments ceiling to the VCSS. In both the MID and MAX scenarios eligibility for the VCSS payment and the value of the per farm payment are determined by the number of suckler cows and breeding ewes farmed in 2010. In the MAX Cows Only scenario the share of the budget ceiling allocated to the scheme is again set at the maximum allowable level (8%) but per farm payments is linked exclusively to the number of suckler cows farmed in 2010.

The final CAP reform implementation scenario examined looks at the impact of the Redistributive Payment Scheme (RPS). Under the RPS Member States can allocate up to 30% of the national budgetary ceiling to a flat per hectare payment that, in Ireland, would be paid on the first 32 hectares of a farm's eligible agricultural area. In the scenario analysed we set the allocation of the budget to the RPS at its maximum level (30%). Table 3 sets out the budgetary allocations associated with each of the 5 scenarios analysed.

Table 3 CAP Reform Implementation Scenario Budgetary Ceiling Shares by Scheme

	BPS Budget Share (%)	*GPS Budget Share (%)*	*VCSS Budget Share (%)*	*RPS Budget Share (%)*
MIN	70	30	0	0
MID	66	30	4	0
MAX	62	30	8	0
MAX Cows Only	62	30	8	0
Redistributive Payment Only	40	30	0	30

For each of the 5 scenarios analysed the SPS database is used to derive the average BPS payment level using the eligible area associated with the 132,752 farms in the database in 2010, the total receipts on each of these farms under the SPS, and the direct payment ceiling available to the BPS in 2019. The average payment level under the BPS is highest

in the MIN scenario and lowest in the Redistributive Payment scenario – reflecting the change in the budgetary ceiling for the BPS under the different scenarios. These average BPS payment levels per hectare and the associated 60% minimum payment level under the BPS as well as the 90% threshold used in the application of the internal convergence model are reported in Table 4.

Table 4: CAP Reform Implementation Scenario Subsidy Rates

	MIN Scenario	*MID Scenario*	*MAX Scenario*	*MAX Cows Only Scenario*	*Redistributive Payment Scenario*
Average BPS (€/ha)	180	169	159	159	103
Minimum BPS (€/ha)	108	102	95	95	62
90% Threshold (€/ha)	162	153	143	143	92
VCSS (€/cow)	n.a.	33	65	84	n.a.
VCSS (€/ewe)	n.a.	5	10	n.a.	n.a.
RPS (€/ha)	n.a.	n.a.	n.a.	n.a.	119
Proportional Greening Factor	0.42857	0.4918	0.52632	0.52632	0.75

The SPS database (which includes data on eligible agricultural area per farm in 2010 and suckler cow numbers and breeding ewe numbers per farm in 2010) is also used to calculate the subsidy rates associated with the implementation of the MID, MAX, MAX Cows Only and Redistributive Payment Only scenarios.

For the scenarios that analysed the impact of the implementation of the VCSS (MID, MAX and MAX Cows Only) the number of suckler cows and breeding ewes on the 132,752 farms within the database are first converted into livestock (LU) equivalents. The budgetary ceiling associated with each scenario was then divided by the total number of LU eligible at a national level for the subsidy to give a subsidy rate per LU for each scenario. Given the LU and animal number equivalences used (1 suckler cow equalling 1 LU and 1 breeding ewe equalling 0.15 of a LU), the per LU subsidy rates are reconverted into per animal unit subsidies.

To calculate the RPS subsidy rate per hectare under the Redistributive Payment Only scenario, the number of hectares on each farm within the SPS database up to an including 32 ha was calculated and the sum of these areas across all 132,752 farms within the database gives the total area eligible for a RPS payment. The RPS payment level associated with the Redistributive Payment Only scenario of €119 per eligible hectare is derived by dividing the total budgetary ceiling available under a 30% allocation by the total area eligible for the RPS payment.

The subsidy rates for each of the 5 scenarios are reported in Table 4. Table 4 also reports the coefficients used to determine the magnitude of each farm's "greening" payment under *proportional greening*. This coefficient is equal to the ratio of the budgetary ceiling available to the GPS and that available to the BPS.

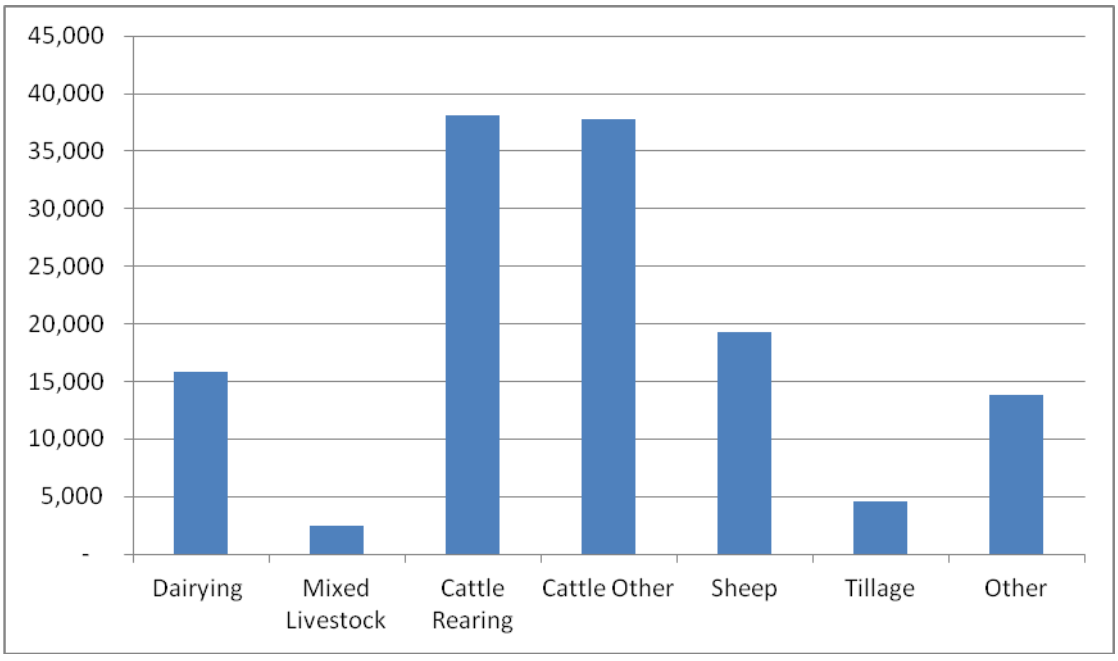
4.2 CAP Reform implementation scenario analysis using the SPS database

In this Section analysis using the SPS database developed and its use in analysing the distributional implications of different CAP reform implementation options is described. The impact of the five CAP reform implementation options outlined in Section 4.1 on distribution of direct income support subsidies within Irish agriculture is described. The five CAP reform implementation options are compared with one another on the basis of which option delivers the highest total direct income subsidy on a per farm basis for all of the farms within the database, with the results presented by farm type.

Section 4.2.1 Methodology

Each of the 132,752 farms within the SPS database is first allocated to one of seven farm types using the European Farm Typology (CEC, 2009), information contained within the SPS database (as augmented by the AIMS and Sheep and Goat Census databases) and standard output coefficients used by the CSO and the Teagasc National Farm Survey. Figure 1 shows the allocation of the SPS farm population across the 7 farms types (Dairy, Mixed Livestock, Cattle Rearing, Cattle Other, Sheep, Tillage and Other). What is clear from Figure 1 is the dominance (in terms of number of farms) of the two cattle farm types (Cattle Rearing and Cattle Other), which together account for over 57% of farms.

Figure 1 SPS Farm Population by Type of Farm



For each farm within the SPS database its initial unit value under the BPS in 2019 for each of the 5 scenarios is then determined. To do this each farms SPS payment per eligible hectare declared is multiplied by each farm's eligible area declared in 2010 to give each farms total SPS receipt. The sum of these individual farm level receipts in 2010 gives us the global budget spent by the SPS system in 2010. The ratio of the 2019 budgetary ceiling for the BPS in 2019 under each of the scenarios analysed determines the factor by which individual farmer SPS entitlement values per hectare are reduced by

in order to determine their BPS initial unit value. This reduction factor accounts for the allocation of budgetary ceilings to the mandatory GPS, to the optional VCSS and RPS and also accounts for the roughly 3% reduction in Ireland's Pillar I budgetary ceiling for direct payments that will occur between 2010 and 2019. Table 5 provides the adjustment factors used across the 5 scenarios to determine each farm's BPS Initial unit value level.

Table 5 Adjustment coefficients used to determine BPS Initial Unit Values

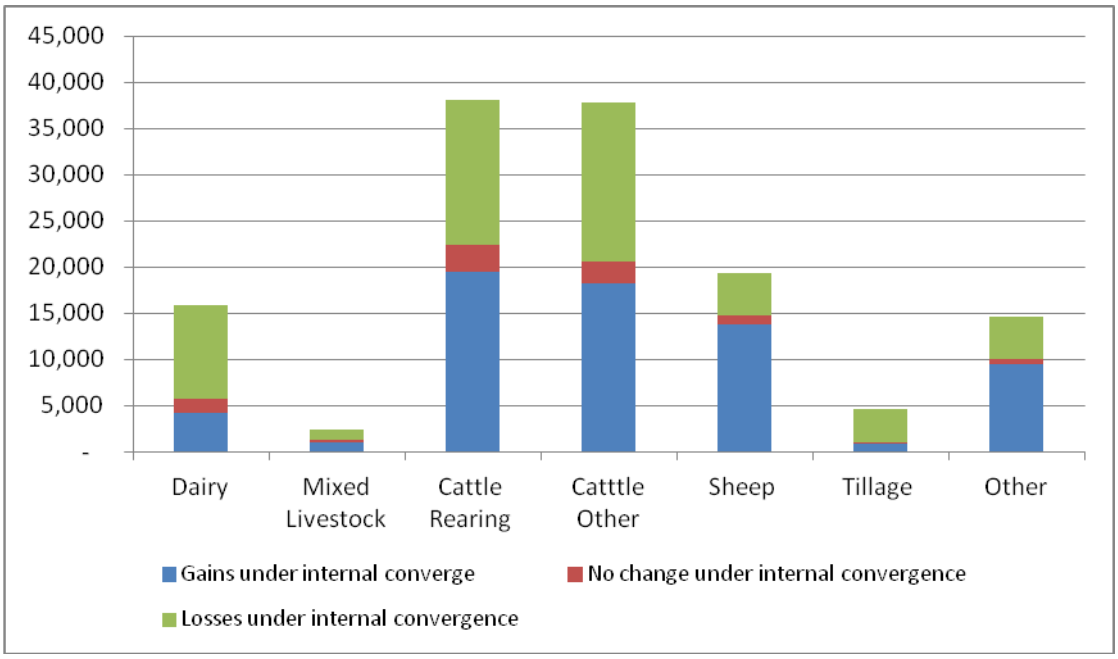
	MIN Scenario	*MID Scenario*	*MAX Scenario*	*MAX Cows Only Scenario*	*Redistributive Payment Only Scenario*
Adjustment coefficient	0.6775	0.5904	0.5517	0.5517	0.3872

Given a BPS initial unit value for each farm and under each scenario, all farms within the SPS database are allocated to one of the three farm categories defined under the *internal convergence model*. These three categories are i) those farms with a BPS initial unit value less than 90% of the average BPS initial unit value, ii) those farms with BPS initial unit values in excess of the average BPS initial unit value, and iii) those farms with BPS initial unit values greater than or equal to 90% of the average but less than or equal to 100% of the average BPS unit value.

The first category of farms are those farms that see their BPS payment per hectare increase under the *internal convergence model*, the second category for farms are those farms that see their BPS payment per hectare decline while the final category of farms are those farms that see no change in the level of BPS payment per hectare under the *internal convergence model*. Which category a farm falls into is not affected by which scenario is analysed but by the level of SPS per hectare received in 2010.

Figure 2 illustrates the distribution of farms across the three internal convergence categories (gaining, losing and no change) by farm type. What is obvious from Figure 2 is that the proportion of each farm type that falls in each internal convergence category is very different. Most dairy farmers and tillage farmers will see reductions in BPS per hectare under the *internal convergence* process while most sheep farmers will see gains in BPS per hectare. On cattle rearing farms a small majority of farms gain under convergence (51%). On cattle other farms the number of farms gaining from convergence (48%) is larger than those losing under convergence (45%).

Figure 2 Farms Categorised by impact of internal convergence on BPS Payment levels



Section 4.2.2 Results using SPS database

Having categorised each farm on the basis of its BPS initial unit value each farm's total subsidy entitlement in 2019 was calculated for each CAP reform implementation scenario on the basis of the farm's eligible area, the number of suckler cows on the farm and the number of breeding ewes on the farm in 2010.

The magnitude in millions of euro that farms in the category of farms that gain additional per hectare BPS payment levels under the internal convergence model is presented in Table 6 for each of the scenarios analysed. Those farms with BPS initial unit values in excess of the average will see their BPS payment levels fall under internal convergence. The magnitude of the reduction in BPS payment per hectare is calibrated to ensure that the funds raised exactly matches the funds required to increase the BPS levels of those farms with BPS initial unit values less than 90% of the average level.

Each farm with an initial payment level under the BPS in excess of the average level will see the *difference* between their initial level and the average level of payment under the BPS proportionately reduced. This proportionate reduction in the difference between initial and average BPS unit values experienced by farms with BPS initial unit values in excess of the average level, also reported in Table 6, is the same across all scenarios analysed. Under the MIN model, the average level of BPS payment per hectare is €180, a farmer with an initial BPS payment level of €280 would by 2019 see their payment reduced by approximately €39.24 euro (or approximately 14%), while a farm with an initial payment level one euro greater than the average level under the BPS would see an absolute reduction in their payment level of approximately €0.39 which is close to a 0% reduction in overall BPS payment per hectare.

Table 6 BPS transfers from losers to gainers under the internal convergence model

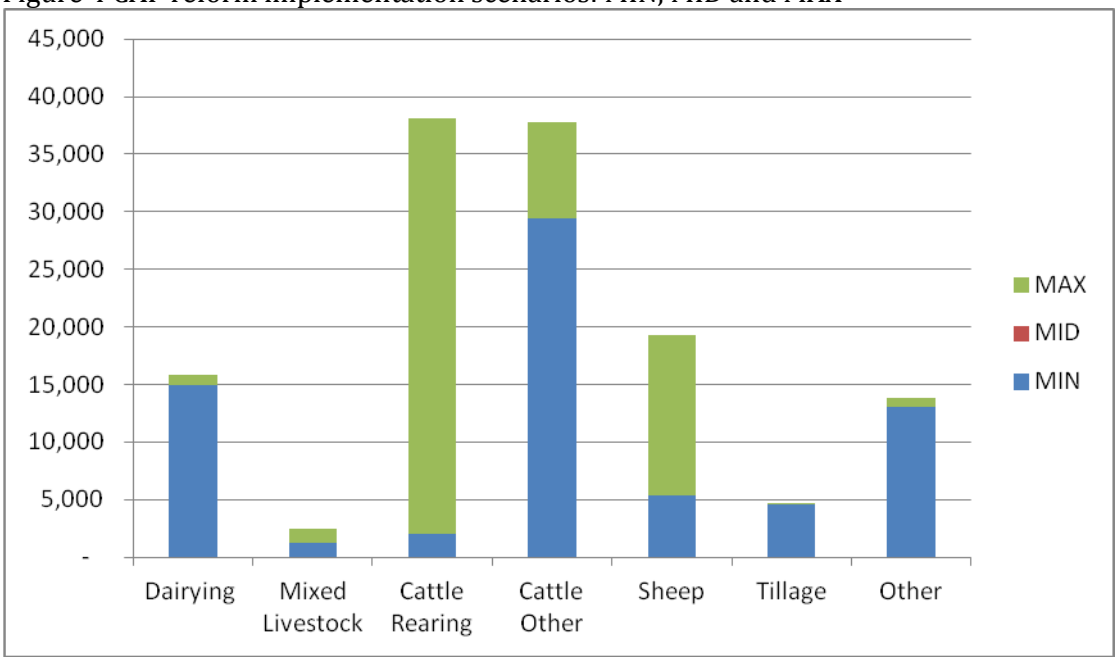
	MIN Scenario	*MID Scenario*	*MAX Scenario*	*MAX Cows Only Scenario*	*Redistributive Payment Scenario*
Increase in BPS receipts of gainers (€m)	78.9	74.4	69.9	69.9	45.1
Proportionate reduction factor	0.3924	0.3924	0.3924	0.3924	0.3924

Each farm's "greening" payment per hectare is then calculated for each scenario using the proportional greening coefficient reported in Table 4. Each farm's receipts under the VCSS and RPS under each of the 5 scenarios are calculated using their levels of the supported agricultural activity or eligible area in 2010 and the subsidy rates reported in Table 4.

For each farm within the SPS database the total subsidy receipt in 2019 is calculated as the sum of the receipts under the BPS, the GPS, the VCSS and the RPS. Farms that lose under the process of internal convergence (that determines levels of support under the BPS and GPS) may see those losses mitigated by gains under the VCSS and RPS. Given the receipts of each farm under each of the CAP reform implementation scenarios it is possible to rank the scenarios on the basis of which CAP reform implementation option delivers the highest total subsidy receipt, referred to here as the "preferred scenario".

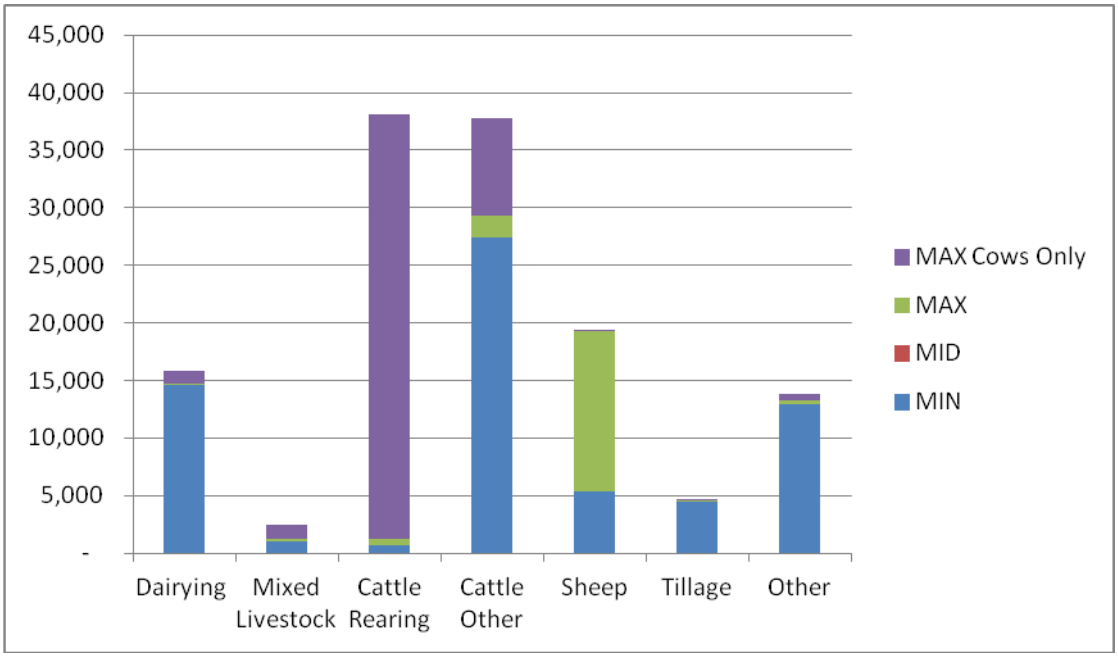
In Figure 4 the MIN, MID and MAX scenarios are compared with one another in terms of numbers of farms (by farm type) that prefer one of these three scenarios over the others. What is clear from Figure 4 is that no farm prefers the MID scenario. If a farm prefers MID to MIN this occurs because the gain from the coupled payment outweighs the loss from the reduced BPS payment received. In all instances where MID is preferred to MIN, MAX is preferred to MID. The preference for MAX over MIN and for MIN over MAX is very different from farm type to farm type. Dairy and Tillage farmers overwhelmingly "prefer" the MIN implementation scenario where no payments are coupled to beef cows and ewes. This outcome arises because the reductions in the BPS payments levels incurred by these farms to "fund" the establishment of the VCSS are not fully offset by gains under the VCSS. The opposite is generally the case for most Cattle Rearing and Sheep farms where the MAX option is generally preferred. On some Cattle Rearing and Sheep farms with very high levels of SPS entitlement per hectare the gains from the coupled payment scheme (VCSS) are insufficient to completely offset the losses in BPS payment level required to fund the establishment of the VCSS. On Cattle Other farms (farms that generally fatten purchased cattle for slaughter) the majority of farms would "prefer" the MIN scenario over the MAX since on such farms the losses in BPS per hectare required to fund the establishment of the VCSS are greater than the magnitude of the gains per hectare from the VCSS.

Figure 4 CAP reform implementation scenarios: MIN, MID and MAX



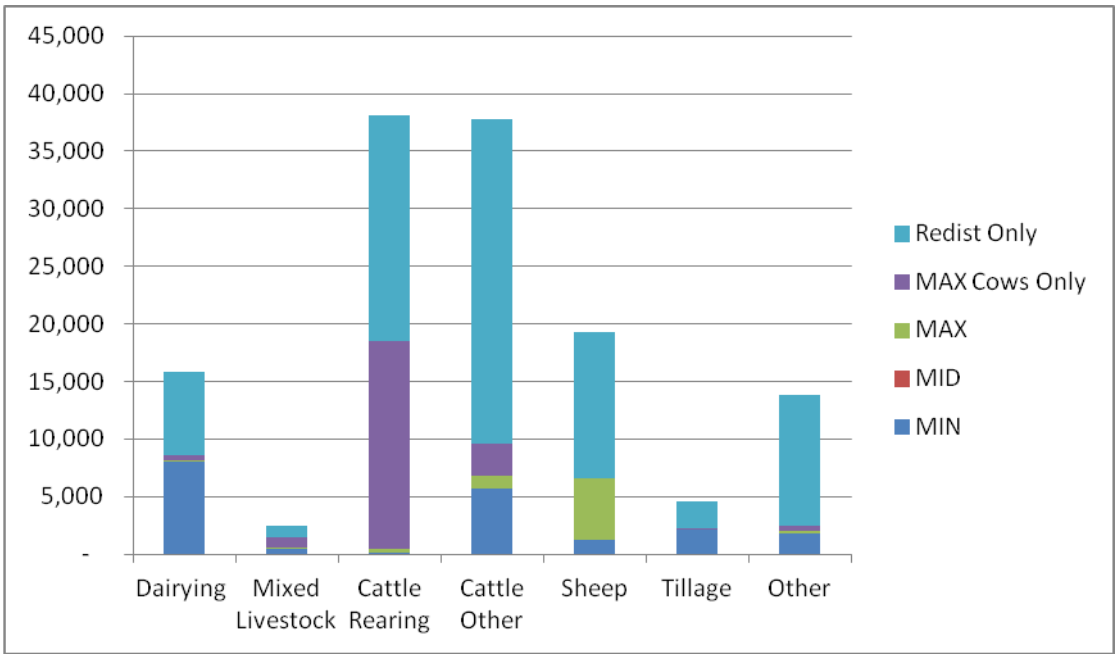
Under the MID and MAX scenarios the eligibility for the coupled payment is based on numbers of suckler cows and breeding ewes held in 2010. If the eligibility criteria for the coupled payment are narrowed to suckler cows only, as in the MAX Cows Only scenario, the preferred scenario changes. Under the MAX Cows Only scenario the per cow subsidy increases over the MAX subsidy rate and as a result those Cattle Rearing farms that preferred the MAX scenario almost uniformly switch to preferring the MAX Cows Only implementation scenario. Sheep farmers unsurprisingly still prefer a CAP reform implementation option which continued to link the coupled payment to their principal agricultural activity (MAX).

Figure 5 CAP reform implementation scenario: MIN, MID, MAX & MAX Cows Only



The final scenario analysed is the Redistributive Payment Only scenario. Under this scenario 30% of the national financial ceiling for direct payments is allocated to the RPS and this ceiling is used to fund a flat rate payment of €119 per hectare that is payable on the first 32 hectares of all farms. The 32 hectare maximum claim limit means that the RPS preferentially allocates subsidy entitlement to farms of average and below average size. The preferences of farms when all 5 scenarios are examined are reported in Figure 6. Across all farm types many farms with either entitlement values that are less than the national average and/or farms of average to less than the average size prefer the Redistributive Payment Only scenario. The preference for farms of 32 ha or less for the redistributive payment is intuitive, they get the Redistributive Payment on all of the area they farm whereas farms with greater than average size only receive the Redistributive Payment on the first 32 hectares farmed. However, even for farms of greater than 32 hectares the Redistributive Payment Only implementation option may sometimes be preferred. This outcome occurs where such farms have very low BPS initial unit values. Under the Redistributive Payment only scenario their payment per hectare increases all the way to the national average on the first 32 hectares farmed. The gains from the transition to a flat area payment on the first 32 hectares may be sufficient to outweigh the losses incurred on areas in excess of 32 hectares that receive a lower level of BPS payment as a result of the implementation of the voluntary redistributive payment.

Figure 6 Reform implementation scenarios: MIN, MID, MAX, MAX Cows Only & Redistributive Payment Only



4.3 CAP Reform implementation scenario analysis using the Teagasc NFS database

In Section 4.1 the information required to simulate the static impact of the 5 scenarios using data on farms within the Teagasc NFS was presented. In this Section the impact of the five scenarios are reported.

NFS data from 2010 are used in this analysis. In 2010 the Teagasc NFS surveyed a representative sample of 1,060 farms representing a farm population of almost 105,000 farms. Very small farms, those with a standard farm output of less than €4,000[3] are excluded. There are over 30,000 farms that are included in the DAFM SPS.

Although the Teagasc NFS excludes a cohort of the farm population, it does offer advantages over the DAFM SPS database. The NFS produces a full financial record for all farms and thus it is possible to ascertain the importance of the Pillar I income support subsidies to overall family farm income, the profitability of production on the farm as well as the level of output generated by the farm. Using the Teagasc NFS data, the impact of the various CAP reform implementation scenarios on overall farm income can be simulated and information on the level of output generated by farms that are losing or gaining under the different CAP reform implementation options can be analysed.

However, it should be noted that the results from the NFS analysis are likely to underestimate the number of farmers gaining under the convergence models as the majority of farms that are excluded from the NFS sampling frame are most likely to be gainers. It is also important to note that the Teagasc NFS represents almost 100 percent of farm output, this means that results relating to the potential impact of a given policy choice on agricultural output are representative for the sector as a whole.

4.3.1 Methodology

The income analysis conducted using the NFS is a static analysis. In other words, while the value of the Pillar I subsidies received under the different payment schemes within the CAP reform implementation scenarios on each farm changes scenario to scenario, all other components of farm income (i.e. output produced, inputs used and markets prices paid and received) are assumed to remain unchanged. Hence the analysis does not allow for any market effects that may occur as a result of the various policy scenarios nor does it account for any changes in production plans that farmers may decide to undertake as a result of the changing CAP reform implementation scenarios analysed.

If farmers view decoupled payments as being *de facto* coupled to production, then it follows that a loss in decoupled support would be expected to have negative consequences for production levels. In order to estimate the amount of output that may be "at risk" due to a reduction in farm income, the proportion of output that is generated by farmers that are gaining or losing under the various farm payment models is presented. Output measures are arrived at by aggregating the total value of output of various products on all farms. For example, the value of beef output on specialist cattle and also on non-specialist farms is estimated. Further, it is important to distinguish the difference between farm output and sector level output measures. In this analysis output at all stages of the farm production chain is considered. For example in the case of beef, total output includes the value of output generated by farms producing and selling calves and the value generated by farms buying calves and selling mature

[3] A €4,000 standard output equates to approximately 3 dairy cows, 3 hectare of crops or 7 suckler cows

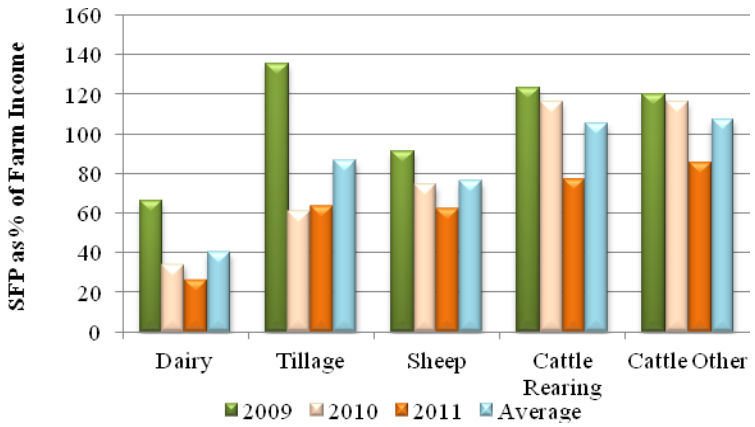
animals for slaughter. Hence the farm output measure here does not equate to a sector level measure which would only include the value of animals at slaughter.

4.3.2 Results of Analysis Using the Teagasc National Farm Survey

The income outcomes reported will depend on an individual farm's starting position in terms of its level of SPS entitlement per hectare (that determines whether it gains or loses BPS payment per hectare under the internal convergence model) and the overall importance of Pillar I direct income subsidies in the farm's overall family farm income.

The impact of various CAP reform implementation scenarios on farm income will, to a large extent, depend on the importance of the Single Farm Payment (SFP) to overall farm income. As can be seen in Figure 7, the importance of the SFP to income varies substantially across farm systems. In general Dairy farms tend to have a lower reliance on the SFP as a source of income compared to the other farm systems, while the Cattle farm systems (Cattle Rearing and Cattle Other) tend to be the most reliant on the SFP. The reliance of family farm income on Pillar I subsidies varies year on year depending on the market return to production. As it was necessary to select one year on which to base the analysis of the SFP model, the year 2010 was selected. Out of the three years 2009, 2010 and 2011, 2010 would appear to be the most typical for the majority of farmers. In 2010 the SFP accounted for 34 percent of income on Dairy farms as compared to 116 percent of income on the two cattle systems. Thus, a 10 percent reduction in Pillar I subsidies received by Dairy farms would reduce family farm income (other things being equal) by 3.4 percent but the same reduction would lead to an 11.6 percent decline in family farm income on Cattle farms.

Figure 7: The Importance of the Single Farm Payment to Farm Income in 2010 by Farm System

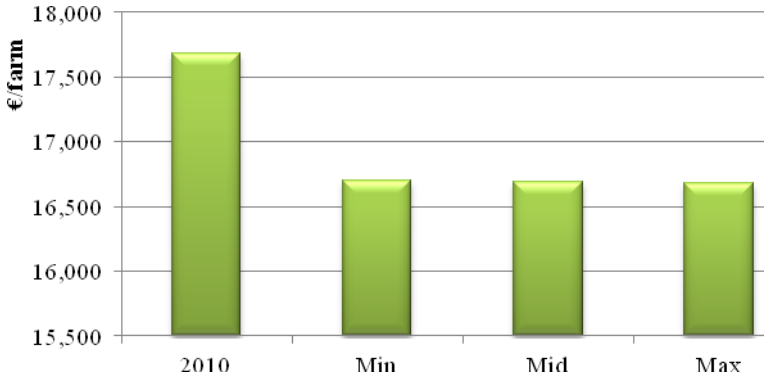


Source: Teagasc National Farm Survey 2010

Figure 9 shows the average family farm income (FFI) across all farms in the Teagasc NFS in 2010 along with the simulated average income under each of the CAP reform implementation scenarios. Across all sizes and systems of the 105,000 farms in the NFS in 2010, the average family farm income was €17, 685. As can be seen, relative to the 2010 average FFI falls under all scenarios. Income is approximately 6 percent lower in the MIN scenario relative to 2010. This reduction in income relative to 2010 is due to two factors. The first is the approximately 3% reduction in the size of the Pillar I direct

payments financial ceiling between 2010 and 2019. This reduction is a result of the February 2013 agreement in the European Council on the 2014-2020 MFF. The second reason that family farm income using Teagasc NFS data is found to be lower under the MIN scenario is due to the nature sampling frame of the Teagasc NFS. The sampling frame used excludes many farms of small size that would gain under the internal convergence process (see the introduction to this Section). There is very little change to average FFI between the MIN, MID and MAX scenarios.

Figure 8: Average Family Farm Income for All Farms in 2010 and under the Various SFP models

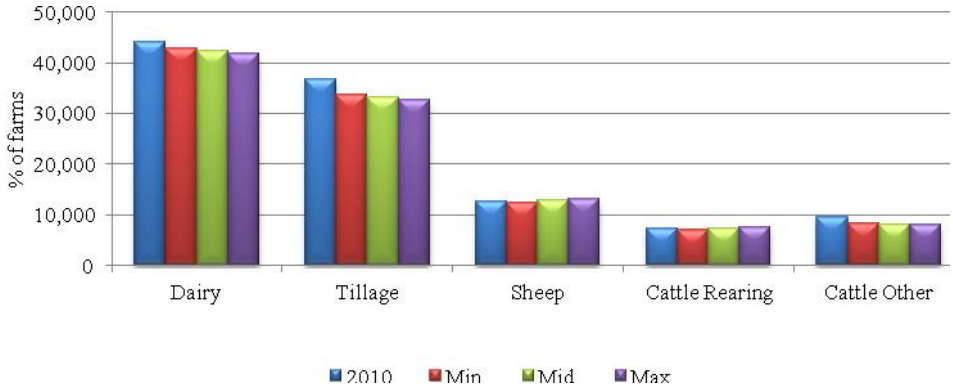


Source: Teagasc National Farm Survey 2010

The impact of CAP reform implementation options on Dairy and Tillage farms are similar. Relative to 2010, average income on Dairy and Tillage farms declines under the MIN scenario, and declines further under the MID and the MAX scenarios. The outcome in terms of relative income levels under the different CAP reform implementation scenarios is reverses on Sheep and Cattle Rearing farms. The 2010 income level can be maintained under the MIN scenario on Sheep and Cattle Rearing farms, in other words the gains in BPS payments per hectare for these two farm systems from applications of the internal convergence model are on average sufficient to offset the negative impact of the reduction in the total size of the budget experience between 2010 and 2019. Average farm income when compared to 2010 increases marginally under the MIN and MID scenarios. Average farm income falls on Cattle Other farms under the MIN scenario relative to 2010. There is very little change to average income between the MID and MIN scenarios but income declines slightly more under the MAX scenario on Cattle Other farms.

It should be noted that the data displayed in Figure 9 are system averages and conceal the considerable variation that exists within each of the farm systems. The variable impact of the different CAP reform implementation scenarios within farm systems is discussed in more detail in the ensuing sections of the report. Likewise, the value of output that is generated by losing and gaining farms system by system is presented and discussed.

Figure 9: Average Family Farm Income by System in 2010 and under CAP reform implementation scenarios



4.3.2.1 Dairy Farms and dairy output

Figure 10 presents the percentage of dairy farms that gain or lose under each of the CAP reform implementation scenarios relative to the FFI position in 2010. The extent of their gains/losses is also displayed. Figure 11 charts the proportion of milk output on farms that are gaining or losing under each of the scenarios. It should be noted that output is measured in value terms and in the case of dairy, it represents the value of milk sales.

Figure 10: Percentage of Dairy Farms by Gain/Loss in Income Category

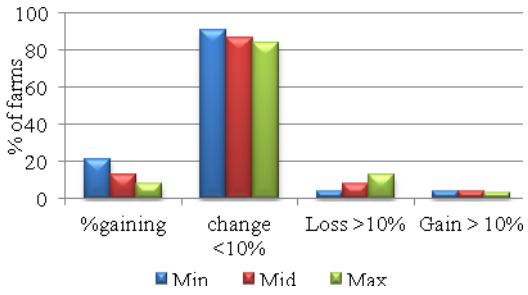
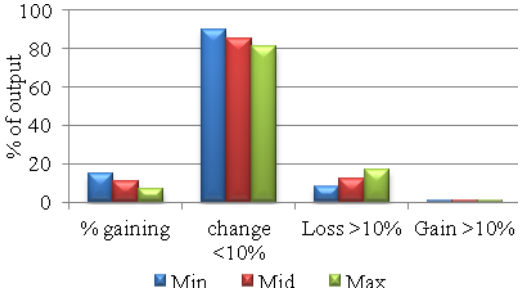


Figure 11: Percentage of Milk Gross Output by Gain/Loss in Income Category



In general the vast majority of dairy farms are worse off under all of the CAP reform implementation scenarios than they were in 2010. The percentage of farms gaining from the reform agreed in June 2013 falls from 20 to 8 percent as the CAP reform implementation scenarios introduce optional schemes and increase the budget allocation to these schemes. While most dairy farms are worse off as a result of the reform. The majority of dairy farms experience an income change of less than 10 percent, positive or negative, under the three scenarios. Of those dairy farms that experience an income change greater than 10 percent, for the majority the impact is negative. Up to 13 percent of dairy farms would experience income losses of greater than 10 percent of income under the MAX scenario, while only 3 percent of Dairy farms would gain by 10 percent or more under the MAX scenario.[4]

[4] While the dependence of dairy farm incomes on direct income support subsidies is lower than most other systems the role of such payments in dealing with the increasingly volatile market based incomes is an important issue. This income risk mitigating aspect of the reforms was an

Figure 11 presents the proportion of milk output on farms that are gaining or losing under the Min, MID and MAX scenarios. Only a very small proportion of output is produced by farms that gain under these scenarios, while the majority of output is on farms that would experience income changes of less than 10 percent. Of those dairy farms experiencing changes in income of greater than 10 percent almost 20 percent of milk output is produced on farms that would experience a 10 percent reduction in their income or more as a result of the MAX scenario.

4.3.2.2 Tillage Farms and crop output

Figures 12 and 13 present the FFI and crop output share results for Tillage farms and crop output. Output is again measured in value (rather than volume) terms and includes the value of crops grown on non-specialist Tillage farms.

Figure 12: Percentage of Tillage Farms by Gain/Loss in Income Category

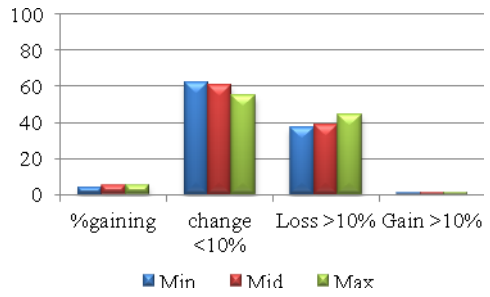
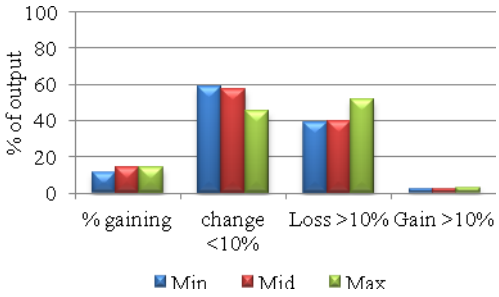


Figure 13: Percentage of Crop Gross Output by Gain/Loss in Income Category



Similar to the results for dairy farms, only a very small proportion of Tillage farms gain under the three CAP reform implementation scenarios MIN, MID and MAX relative to the 2010 position. However, unlike the dairy sector, a considerable proportion of Tillage farms would experience negative income effects of 10 percent or greater under these three CAP reform implementation scenarios. Under the MAX scenario over 40 percent of Tillage farms would see their income fall by 10 percent or more relative to their position in 2010. The negative impacts are even more pronounced when output is considered. Up to 55 percent of crop output is on farms losing 10 percent or more of their income under the MAX scenario. This result suggests that Tillage farms that experience pronounced negative income effects account for more output than those experiencing only small changes in income. Tillage farms are also more likely to incur greening compliance costs than other Irish farm types which are largely grassland based. Greening compliance costs will further exacerbate the negative income impact of the reforms under all of the reform implementation options considered (see this submissions appendix for more detail on the number of farms likely to be affected by the EFA and crop diversity provisions associated with "greening").

important motivation for the original reforms proposed by the European Commission (European Commission, 2010, 2011)

4.3.2.3 Sheep Farms and sheep output

The results for sheep farms are presented in Figures 14 and 15. Again sheep output is the value of sheep produced and includes that output valued produced by non-specialist Sheep farms.

Figure 14: Percentage of Sheep Farms by Gain/Loss in Income Category

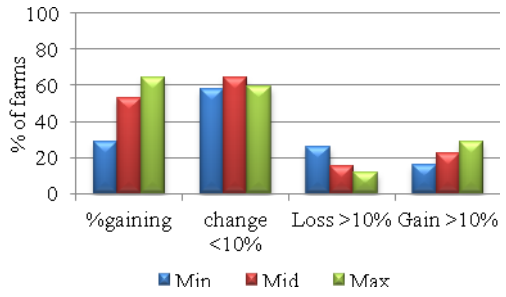
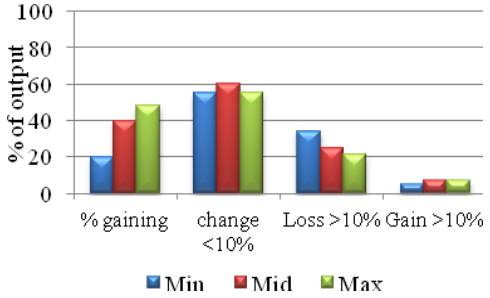


Figure 15: Percentage of Sheep Gross Output by Gain/Loss in Income Category



Unlike Dairy and Tillage, the majority of Sheep farms gain in terms of FFI under the two coupling CAP reform implementation scenarios (MID and MAX) relative to the 2010 position. Almost two-thirds of Sheep farms would see increases income under the MAX scenario relative to 2010. However, the vast majority of these farms would experience income changes of 10 percent or less under all three scenarios when compared with the income levels experienced in 2010. The proportion of Sheep farms experiencing income losses of 10 percent or more is greater under the MIN scenario than the proportion of Sheep farms gaining 10 percent or more under this CAP reform implementation scenario. It is of note that the numbers of Sheep farms losing income relative to 2010 decline under the two coupling scenarios and that under MAX the number experiencing gains of 10 percent or more exceed the numbers losing that amount.

In relation to sheep output, Figure 15 illustrates that the majority of output is on farms experiencing relatively small income changes. Interestingly, under the MID and MAX CAP reform implementation scenarios, there is more output on farms experiencing greater than 10 percent negative income effects than on the farms experiencing positive income impacts of a similar magnitude. This is despite the fact that there are a greater number of farms that experience positive income effects from the reform scenario analysed. This suggests that farms losing direct income support as a result of the internal convergence process and implementation of the VCSS account for a greater proportion of output than those gaining.

4.3.2.4 Cattle Farms and beef output

Figures 16 and 17 present the percentage of Cattle Rearing and Cattle Other farms that gain or lose under each of the CAP reform implementation scenarios relative to the starting position in 2010.

Figure 16: Percentage of Cattle Rearing Farms by Gain/Loss in Income Category

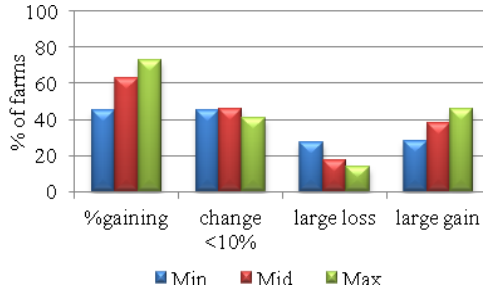
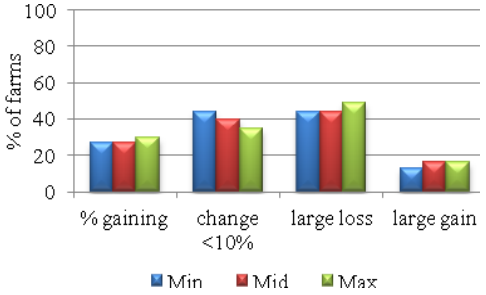


Figure 17: Percentage of Cattle Other by Gain/Loss in Income Category

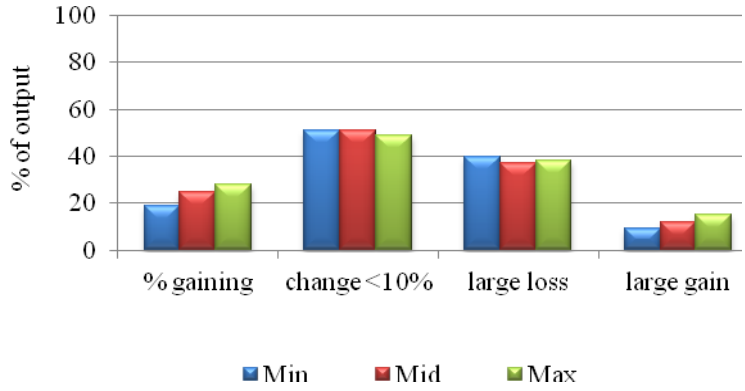


It is interesting to note that the pattern is different for the two Cattle systems. The coupling scenarios analysed in MID and MAX clearly benefit the Cattle Rearing system with almost 50 percent of farms experiencing income increases of 10 percent or more under the MAX scenario. Although it should be noted that almost 15 percent of Cattle farms still lose 10 percent of their income or more under the MAX scenario. The results for the Cattle Other system are markedly different. While the total numbers of Cattle Other farms benefitting increase marginally as the payments are coupled to production, there is no reduction in the number of farms losing 10 percent of their income or more, the results show that there is a slight increase in the number of Cattle Other farms losing 10% or more of their income (as compared to 2010) under MAX where almost 50 percent of Cattle Other farms lose 10 percent or more of income. Considerably fewer Cattle Other farms make an income gain of greater than 10 percent under the MIN, MID or MAX scenarios. In general as one would expect, the coupling scenarios (Mid and MAX) favour the Cattle Rearing farms but penalise the Cattle Other farms.

Figure 18 presents the proportion of beef output generated by farms that are gaining or losing under the various CAP reform implementation scenarios. It is important to note that this output figure combines the output generated by the Cattle Rearing and Cattle Other farms and also includes the value of beef produced on Dairy, Tillage and Sheep farms.

In general there is a greater proportion of beef output produced on farms that are losing 10 percent or more of their income than there is on farms experiencing an income gain. While the proportion of output on farms losing considerably decreases under the MID (as compared to the MIN) scenario, this proportion increases under the MAX scenario. In other words, the benefits accruing to Suckler producers under the MID and MAX scenario do not substantially improve the output position and do not sufficiently compensate for the negative implications of coupling for the direct payment receipts from the reduced BPS payment ceiling that affects non-suckler beef producers.

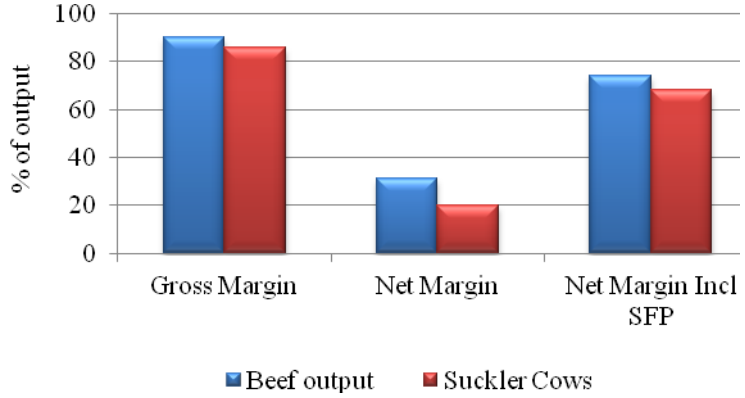
Figure 18: Percentage of Beef Gross Output by Gain/Loss in Income Category



It is somewhat surprising that even under a coupled scenario like MAX, where approximately €65 per cow is paid on every suckler cow, that the impact on income and production is so seemingly negligible. It is of interest to examine in more detail the impact of coupled payments on the overall profitability of beef with a view to examining what impact the implementation of a voluntary coupled support scheme (VCSS) targeted at the beef sector could have in increasing the profitability of beef production.

Figure 19 presents data from the 2010 Teagasc National Farm Survey on the profitability of beef production in general and specifically suckler production using various profitability measures. The average gross and net margin per livestock unit of beef production is estimated for each farm for 2010 and the proportion of total beef output and suckler cow production that is profitable using these measures is presented in Figure 19.

Figure 19: Percentage of Beef Output and Suckler Production Profitable in 2010

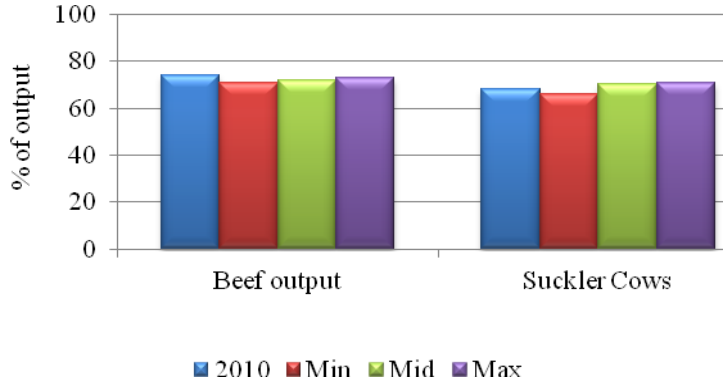


In 2010 almost 90 percent of beef output and 85 percent of suckler cows was on farms that made a positive average gross margin per livestock unit. However, when the overhead costs of production are accounted for (these include depreciation on buildings, machinery, interest payments on loans and so forth) the profitability of beef production deteriorates. Only 30 percent of beef output and 20 percent of suckler cow output is profitable when measured on a net margin basis. However, there is ample evidence that Irish beef farmers use their decoupled payments to subsidise loss making production and/or to cover the overhead costs associated with production that is profitable in a

gross margin sense. Therefore, it may be more appropriate to consider the profitability of beef using a coupled measure.

Figure 19 also shows the proportion of beef and suckler production that is profitable when the value of the decoupled payment is added to the net margin calculation, in other words when a "coupled net margin" per livestock unit figure is used. [5] Figure 19 shows that even when the value of the decoupled payment is assumed to be coupled to production, only three quarters of beef output and two-thirds of suckler output is profitable. A key question to be addressed in assessing the usefulness or otherwise of reintroducing a coupled payment for suckler cow production via the implementation of the optional VCSS is how that payment might impact on this profitability measure. Figure 20 presents the proportion of total beef output and suckler production that is profitable in a coupled sense under the MIN, MID and MAX CAP reform implementation scenarios.

Figure 20: Percentage of Beef Output and Suckler Production Profitable in 2010 and under the Various Scenarios

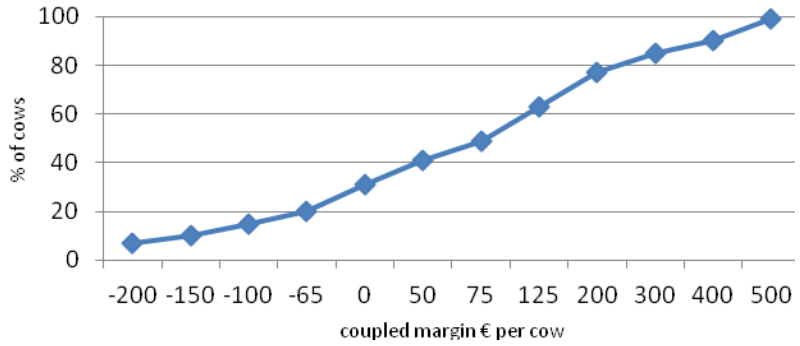


As can be seen the proportion of beef output that is profitable in a coupled net margin sense declines under the MIN scenario relative to 2010 and increases marginally under the MID and MAX scenarios relative to MIN. The overall impact of the higher coupling rate under the MAX scenario is to increase the proportion of beef output that is profitable by 2 percent over and above a scenario where there is no coupling, i.e. MIN. The relatively small impact of coupling on the overall profitability of beef output is due to the fact that a large portion of output does not directly benefit from the coupled payment, i.e. finishing beef and dairy beef. As expected, the impact on profit is more pronounced when suckler production is examined in isolation. The proportion of suckler cows that are profitable in a "coupled net margin" sense increases from 66 percent in the MIN scenario to 71 percent in the MAX scenario. In other words the €65 per head coupled payment under the MAX scenario serves to make another 5 percent of Irish suckler cows profitable. It should be noted that the payment also increases the profitability of production all along the profit distribution, here only the impact on breaking even is considered. Nonetheless the impact of the coupled payment on reducing the amount of loss-making suckler cow production is marginal.

[5] Where farms have a number of farm enterprises the value of the SFP to be coupled to the beef enterprise was estimated using the proportional importance of beef output to overall farm output.

To gain an understanding of why coupled payments have such a minor impact on profitability, it is necessary to examine the current profitability of suckler cow production in more detail. Figure 21 shows the profit distribution of suckler cow production in Ireland using the "coupled net margin" measure. The average net margin per livestock unit is calculated for each farm and the value of the SFP was added to the net margin measure. Farms were then plotted on the basis of profitability and the number of suckler cows in each profit range was estimated, the resulting profit distribution is presented in Figure 21.

Figure 21: Profit Distribution of Suckler Cow Production in Ireland in 2010



As can be seen from Figure 21 almost 30 percent of suckler cows were stocked at a loss in 2010, even when the value of the decoupled payment was considered part of the net margin, and up to 50% of cows made a coupled margin of €75 or less. Notably, 20 percent of suckler cows produced a coupled net loss of €65 or more in 2010. In other words even if these cows received a top-up payment of €65 each, as proposed under MAX scenario, this subsidy rate would still be insufficient to make this one fifth of the Irish suckler cow herd profitable.

A further compounding factor that makes the profit impact of coupling relatively small is the fact that the coupled payment is not "free money" since in the context of a fixed overall direct payments ceiling any increase in the budget allocation to a VCSS targeted at suckler production necessarily reduces the BPS payment level received by all farmers (including suckling farmers). For suckler farmers a coupled payment of €65 per cow delivers a net benefit of less than €40 per cow. This is because the Basic Payment of all farmers, including suckler farmers, is reduced to fund the coupled payment. Our results show that up 10 percent of suckler cows are on farms that would benefit more from the MIN scenario than from either the MID or MAX scenarios where a coupled payment for suckler cows is introduced.

The impact of limiting eligibility to the VCSS to sucker cows only was also considered in the MAX Cows Only CAP reform implementation scenario. Under this scenario a coupled payment of €83 per suckler cow would be available. Figures 21 and 22 shows the impact of the MAX Cows Only scenario on Cattle Rearing farm income and total beef output.

Figure 21: Percentage of Cattle Rearing Farms by Gain/Loss in Income Category

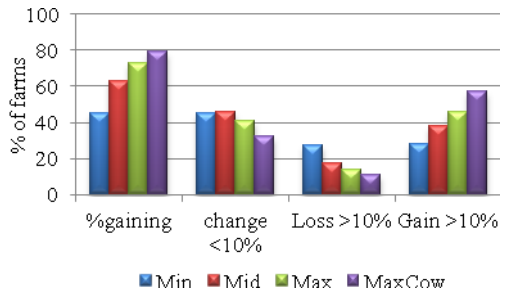
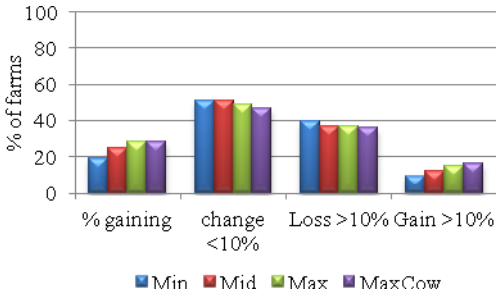


Figure 22: Percentage of Beef Output by Gain/Loss in Income Category



As can be seen from Figures 21 and 22 the proportion of Cattle Rearing farms experiencing income gains increases when the rate of coupling to the suckler cow is maximised, i.e. under MAX Cows Only. Almost 60 percent of Cattle Rearing farms experience an income gain of 10 percent gain or more. However, the proportion of beef output on farms experiencing income gains does not increase under this scenario as compared with the other CAP reform implementation scenarios analysed. This result suggests that those benefitting most from the higher coupled payment account for smaller portions of output. In other words, the higher coupled per cow payment increases income on Cattle Rearing farms in general and increases the number of farms gaining considerably. However, relative to the MAX scenario, the MAX Cow Only scenario does not reduce the amount of output on farms losing considerably.

4.3.2.5 All Farms and all Output

In summary, Figures 23 and 24 present the impact of the various scenarios on the income of all farms and on all farm gross output.

Figure 23: Percentage of All Farms by Gain/Loss in Income Category

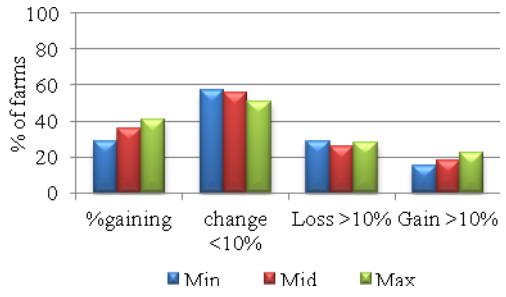
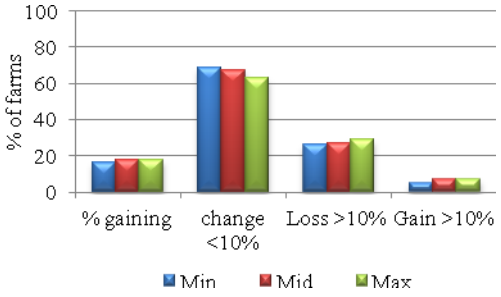


Figure 24: Percentage of All Output by Gain/Loss in Income Category



In general, greater numbers of farmers gain under the MID and MAX scenarios relative to the MIN scenario. While most farmers experience relatively small income changes, i.e. less than 10 percent, of those experiencing more substantial income changes, the effect tends to be negative rather than positive. In other words, the coupling scenarios, MID and MAX, increase the incomes of a greater proportion of the farming population than the MIN scenario. But the increase in income to those gaining tends to be smaller than the losses being incurred by the losers. The situation is similar but more pronounced

when output is considered. The proportion of output gaining under the MIN MID and MAX scenarios is much lower than the proportion of farms gaining. For example under the MAX scenario 40 percent of farms would experience an increase in their income relative to the 2010 position, but they account for less than 20 percent of output. This suggests that the farms that gain under the MID and MAX scenarios typically produce less output those that lose under these CAP reform implementation scenarios. While the majority of output is on farms experiencing relatively small changes in income, there is a far greater volume of output on farms that are losing substantial portions of income than on those farms that are gaining, with farmers that benefit tending to be less productive (i.e. have a lower output value) than those that are losing.

4.3.2.6 The Impact of a Redistributive Scenario

Analysis was also conducted to examine the impact of the introduction of a redistributive payment on farm income and output. The Redistributive Payment Only scenario (referred to here as REDIST) considers the impact of redistributive payment of €118.87 per hectare on the first 32 hectares, the introduction of this payment however implies that average BPS payment level towards which BPS converge under the internal convergence model reduces to €102.64 (this compares with and average BPS payment level of €180 per hectare under the MIN scenario). The REDIST scenario assumes that there are no coupled payments. As expected smaller farms, especially those with a lower than average initial basic payment, benefit under the REDIST scenario.

Figure 25: Percentage of All Farms by Gain/Loss in Income Category

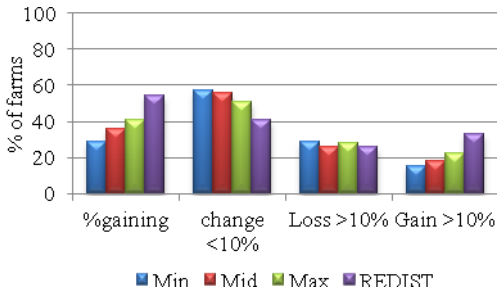
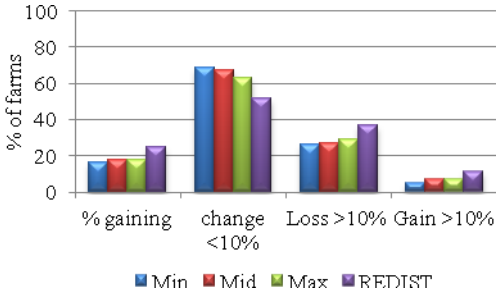


Figure 26: Percentage of All Output by Gain/Loss in Income Category



Over 50 percent of farms would experience an increase in their income under the REDIST scenario relative to their current position and up to one-third of farmers would see their income increase by 10 percent or more. However, as is clear from Figure 26, the farms gaining most from the REDIST scenario account for a relatively small proportion of output. The one-third of farms that would experience a 10 percent increase in their income or more under the REDIST scenario account for 11 percent of output. On the other hand, approximately a quarter of farms would see their income fall by 10 percent or more and these farms that lose more than 10% income (by comparison with 2010) account for almost 40 percent of farm gross output. The REDIST scenario favours the majority of farms in terms of income gains but the farms that lose under this scenario tend to account for more of Irish agriculture's output.

The negative impact of the Redistributive Payment Only (REDIST) scenario on farm output is even more pronounced in certain sectors. Farm systems that are dominated by larger than average farms with larger than average initial basic payments are likely to lose out most from the implementation of the Redistributive Payment Only scenario. The tillage sector in particular, would be particularly negatively impacted by a redistributive payment. Less than 1 percent of Tillage farms would experience an income increase of 10 percent or more under the REDIST scenario while 38 percent of Tillage farms would see their income falling by 10 percent or more. Furthermore, 61 percent of crop output is generated on farms losing 10 percent of their income or more under the REDIST scenario compared to 39 percent under the MIN scenario.

Farm systems with smaller than average farm size tend to benefit from a redistributive payment. For example, 55 percent of Cattle Rearing farms and 36 percent of Cattle Other farms would experience an income gain of 10 percent or more under this scenario. However, these farms tend to be smaller and produce less output, as only 18 percent of beef output is generated by farms gaining by this amount.

4.4 CAP Reform implementation scenario analysis: Conclusions

Section 4 reported the findings of research conducted on the impact of 5 CAP reform implementation scenarios on the distribution of direct income support, on family farm incomes and agricultural output. Table 1 of this submission identified 7 questions relating to the Voluntary Coupled Support Scheme and the Redistributive Payment Scheme that the analysis in this Section has sought to address in an indirect fashion. Teagasc cannot recommend a share of the national direct payments ceiling that *should* be allocated to either the VCSS or RPS or recommend that activities *should* be supported. The analysis reported above provides objective evidence on the impact of different CAP reform implementation options on the distribution of direct income support amongst Irish farmers, on family farm income and on the agricultural output of Irish agriculture. The nature of this CAP reform, wherein any decision to implement a targeted scheme such as the VCSS or the RPS necessarily implies reduced levels of income support for the general farm population, makes it difficult, where income maximization is the policy objective, to recommend one policy implementation choice over another. To make such a recommendation would require the specification of a social welfare function that aggregates the gains and losses of "winning" and "losing" Irish farmers under the different possible policy implementation scenarios.

In so far as current receipts of decoupled direct income support payments from the SPS and the schemes provided for under the new CAP support production, the results presented here point to a trade off between legitimate but competing policy objectives that i) seek to maximize the income of the maximum number of farms and ii) seek to minimize the negative income impact of CAP reform on Irish agricultural output. Policy implementation choices that target coupled direct payments or area based payments on agricultural activities engaged in by large numbers of smaller scale farmers and less intensive farmers could adversely impact the profitability of production on a smaller number of larger more intensive farms.

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Appendix: Greening Measures on Tillage Farms

All three standard greening measures (permanent pasture, crop diversification, EFA) have the potential to affect the net margin on tillage farms more severely than other systems of production. This appendix provides an outline of (i) the number of farms that are likely to be affected by the three greening measures using data from the Teagasc National Farm Survey (NFS) and (ii) how the three greening measures may negatively affect economic returns on tillage farms.

Number of farms likely to be affected by the three Greening measures

The vast majority of all farms in Ireland have some grassland and therefore will be affected by the first measure. The second two measures are targeted towards farms with arable area. Table A1 outlines the number of farms that are likely to be affected by these measures.

Table A1: Number of Farms to be affected by Greening

	Farm Numbers
Number of farms that have no arable area	86,253
Number of farms that have some arable area	19,281
0 - 10 hectares of arable area	9,648
10 - 30 hectares of arable area (currently only 1 crop)	***3,629***
10 - 30 hectares of arable area (currently 2 crops or more)	2,724
30 hectares or more of arable area (currently less than 3 crops)	***882***
30 hectares or more of arable area (currently 3 crops or more)	2,398
EFA: 15 hectares or more of arable area	**7,085**

Source: Teagasc, National Farm Survey, 2011

Approximately 19,000 farms have some arable area but over half of these have less than 10 hectares and therefore are not impacted by the crop diversification measures. Just over 6,000 farms have between 10 and 30 hectares of arable area but about 2,700 of those already have two crops and so would not be further impacted by the crop diversification requirements. Just over 3,000 farms have 30 hectares of arable land or more but the vast majority of them already have 3 crops. Whilst this data indicates that the number of farms potentially affected by the crop diversification measure is low, the opportunity costs on these farms are potentially large.

If a farmer has more than 15ha of arable land then they must set aside 5% as Ecological Focus Areas (EFA), but this 5% can include forests, hedges and short rotation coppice. This element of the greening criteria affects about 7,000 farms. For this group of farms the opportunity costs are associated with forgone income on this land.

How greening measures may potentially affect economic returns on tillage farms

The potential opportunity costs associated with each of the Greening measures is summarized below:

Permanent Grassland: The main cost associated with this measure is the opportunity cost of not converting grassland into arable land, especially for crops such as potatoes where there are obvious yield and quality (and hence price) advantages of including grassland in the rotation.

Crop Diversification: In the first instance the cost incurred is the income foregone for the main crop, esp. in case of monoculture (especially malting barley), which is the main cost associated with this Greening Measure (there are approximately 4,500 farms

affected). In addition, there are potential short term costs to putting the new (more diversified) crop mix in place, such as requirements for new equipment, skills and different marketing outlets. Additional costs, which may not be thought of in the first instance, but which may be associated with crop diversification include increased workload and costs associated with fragmentation (where a grower has to make extra journeys due to the extra crops).

Ecological Focus Areas: The main cost associated with this measure (for approximately 7,000 farms affected) is the opportunity cost of income forgone on the land designated as EFA that would otherwise have been used to grow a marketable crop.