# Implications for food production, land use and rural development of the European Union's Single Farm Payment: Indications from a survey of farmers' intentions in Germany, Portugal and the UK

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**Abstract**

The 2003 reform of the European Union's (EU) Common Agricultural Policy introduced a decoupled income support for farmers called the Single Farm Payment (SFP). Concerns were raised about possible future land use and production changes and their impact on rural communities. Here, such concerns are considered against the workings of the SFP in three EU Member States. Various quantitative studies that have determined the likely impact of the SFP within the EU and the study countries are reviewed. We present the results of a farm survey conducted in the study countries in which farmers' responses to a decoupling scenario similar to the SFP were sought. We found that little short-term change was proposed in the three, rather different, study countries with only 30% of the farmers stating that they would alter their mix of farm activities. Furthermore, less than 30% of all respondents in each country would idle any land under decoupling. Of those who would adopt a new activity, the most popular choices were forestry, woodland and non-food crops.

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## Introduction

In July 2002, the EU's Commissioner for Agriculture and Rural Development, Franz Fischler, proposed a significant change to the Common Agricultural Policy (CAP) (Commission, 2002).[1] Arable area payments, and headage payments for beef cattle, sheep and goats, which then accounted for 61% of CAP budget expenditure on price and income support (Commission, 2002), and compensation payments for milk producers already agreed in Agenda 2000, would be decoupled from production, thereby giving farmers greater freedom to farm. In introducing its formal proposals for reform in January 2003, the Commission said: 'By providing greater farming flexibility, decoupling will improve the income situation of many farmers in marginal areas' (Commission, 2003). Although details changed during negotiations in the Council of Ministers, this was the core of the package agreed by Council in Luxembourg in June 2003. The new Single Payment Scheme introduced 'an income support for farmers' (Council, 2003: Article 1), commonly known as the Single Farm Payment (SFP), which was extended in 2004 to embrace direct payments on cotton, tobacco, olive oil and hops, and that came into effect in 2005 in most Member States.

During debate in Council, and elsewhere, concern was expressed that if payments were to be decoupled then farmers would be free to abandon agricultural production, with potentially adverse environmental, land use and rural developmental consequences, and to switch production to, say, field vegetables, providing unwelcome subsidised competition for traditional producers not currently in receipt of the SFP.

The new support system challenges policy makers and analysts, because the unprecedented extent and nature of the change means that there is absolutely no prior EU experience from which the parameters usually deployed by economists in their models (price elasticities of supply, for example) can be reliably estimated.[2] The models that have been run, to date, have necessarily relied on 'guesstimates' of relevant adjustment parameters (see, for instance, Anton et al., 2005 and Renwick et al., 2003). Nevertheless, a conclusion of the EU-funded EPSON project was that farm incomes in the EU-15 will be only marginally affected by the introduction of the SFP (Shucksmith et al., 2005).

One way to obtain insight into the *likely* response of farmers is to undertake a carefully constructed survey of their future intentions. By chance, a major survey of farmers in Germany, Portugal and the United Kingdom (UK) was undertaken in the autumn and winter of 2001/2002, asking farmers how they might respond to various decoupling scenarios. These survey results are summarised in Tranter et al. (2004). This paper extracts and utilizes data from that survey, presents further analyses of it and focuses on survey farmers'

[1] This was known as the Mid-term Review, following an agreement in the previous CAP reform (Agenda 2000) that certain provisions would be reviewed part-way through the Agenda 2000 planning horizon (2000–2006).

[2] However, a sweeping change was made to agricultural policy in New Zealand in the mid-1980s and Australia, in 2000, abolished support arrangements for fluid milk overnight (Harris and Rae, 2006; Johnson, 2000).

responses to a decoupling scenario close to the SFP. Throughout, we concentrate on what the survey told us about likely effects on food production, land use and rural development.

This paper proceeds as follows. First, we identify concerns expressed about 'desertification', other land use changes and the impact on rural communities in the EU consequent upon decoupling. Second, we outline the SFP, addressing concerns identified in the previous section (touching on cross-compliance, modulation and the switch of funds to rural development, partial decoupling, etc.), and explain how the scheme is being applied in the three study countries (Germany, Portugal and the UK). Third, we review some quantitative studies that have attempted to determine the likely impact of the SFP for EU-15 and our three study countries. Then, we present the results from the 2001/2002 farm survey, noted above. Finally, we draw our conclusions.

## Food production, land use and rural development issues arising from decoupling

Three stages in the evolution of CAP support can be identified. In the archetypal CAP, pre-1992, support was linked to production, often the production of a processed product, such as butter, a beef carcass, or white sugar, that could be sold into intervention. In the MacSharry reforms of 1992, partial decoupling of support for cereal and beef producers was introduced. Although price support (and intervention) was not eliminated, the level of market price support was substantially reduced, and – in compensation for the implied loss of revenue – farmers received area and headage payments on the eligible crops sown, and animals kept. Thus, weight of output was no longer a determinant of the amount of CAP support received by the farmer. The Fischler reforms of 2003/2004, culminating in the Mid-term Review, took this one step further. Indeed, the Commission (2002) talked of 'completing the shift from product to producer support with the introduction of a decoupled system of payments per farm'.[3] The idea was that *all* direct payments (not simply those associated with the MacSharry reforms of 1992), previously paid on an area or headage basis, would be converted into the SFP. This would be an annual payment based on the amount of land kept in good agricultural and environmental condition, regardless of the level of crops grown or animals kept. The actual scheme, outlined below, is not quite as simple as this!

In discussing decoupling with stakeholders, it was found that there were two major issues with important food production, land use and rural development implications that arose: 'will land fall idle?' and 'will many farmers leave agriculture?' For some, the issue underpinning these questions is whether rural de-population might occur but it is not intended to address that question in this paper. Nevertheless, these concerns informed the questionnaire survey design implemented by Tranter et al. (2004) in 2001/2002 and are discussed in more detail below.

*Will land fall idle*? When farmers receive payments irrespective of how they use their land, marginal land might drop out of production. Such land idling may be concentrated in some regions, with negative implications for the countryside (see, for instance, National Trust, 2005). Whilst the extent of voluntary set-aside in the 1990s had not become a major issue (HGCA, 2005), under a regime of more-fully decoupled payments, as the SFP, there

[3] Nevertheless, a bond scheme, as proposed by Tangermann (1991) for example, would result in even greater decoupling by eliminating all future links with farming activity, and farmland. The survey of Tranter et al. (2004) was also designed to elicit farmers' reaction to this further stage in decoupling.

would be no upper limit to idling, and whole farms could potentially be closed down. There are various forms of extensive land use that might spread if land has no longer to be planted to the *grandes cultures* in order to receive payments. With decoupling of livestock payments, idling might also spread to areas of extensive goat, sheep and cattle operations, which were formerly carried out in order to receive livestock payments. To set against this, it could be argued that under the EU's Nitrates Directive, more land might be required for slurry-spreading in the spring as a cheaper alternative to other methods of disposal.

Jones (2005) discussed the issue of whether to produce or not and tended to agree with commentators such as Nix (2005) that more far reaching changes may be seen in 2006 and beyond. However, the Commission (2003) addressed this concern in its proposals of January 2003: 'In order to avoid land abandonment as a result of decoupling, ... farmers will have to meet stringent land management obligations as part of the new cross-compliance requirements'. Furthermore, 'Payments will only be made to farmers actively producing or maintaining land in good agronomic condition, maintaining the link to land'. In the end, this did not satisfy all Member States, and so an option was built-in allowing them to adopt partial decoupling.

A further problem is the risk that land might be diverted from arable crops at the intensive, rather than the extensive, margin, with farmers switching to other products. Indeed, Cunha (2004) argued that those in southern Europe producing permanent crops such as vines or fruit trees could be particularly disadvantaged by former arable crop farmers converting to these uses. Consequently, land 'under permanent crops, forests or used for non-agricultural activities' cannot be used to validate SFP claims; and SFP claims cannot be made on land used to grow fruit and vegetables, or potatoes other than for the manufacture of potato starch (Council, 2003). However, these restrictions are currently under review.

*Will many farmers leave agriculture*? Decoupling payments from land use will not, in most cases, reduce farm revenues, for it allows farmers to use their resources more economically and therefore leads, for a given level of payments, to higher farm incomes. From this perspective there will be not more, but instead less, pressure for farmers to leave the land. However, as land no longer has to be planted, and animals no longer have to be kept in order to receive payments, the amount of labour required may decline if land use and livestock production decrease as a result of decoupling.

The reduced throughput would, thus, impact on ancillary industries supplying the sector and transporting and processing its product, with ensuing job losses and possible rural de-population. Feed mills, slaughter houses and co-operatives supplying inputs/marketing outputs could be especially affected (Courtney et al., 2007). The on-going process of CAP reform will eliminate export subsidies in due course which will necessitate further reductions in market price support and lead to an additional drop in production levels.

At the same time, under the SFP, farmers may continue the recent trend to spend more of their time (and more of their residual income) away from their farm businesses, further impacting upon the social viability of rural communities and the financial health of the wider rural economy. However, in the UK, SFP is treated as revenue for income tax purposes only if the farm business satisfies the definition of farming for tax purposes (HM Revenue and Customs, 2005). Moreover, to maintain eligibility for the SFP, land has to be maintained in good agricultural and environmental condition, and the other cross-compliance conditions met, which will require some minimal level of labour input.

## The single payment scheme

In practice, the SFP is being implemented in quite different ways across the EU. The situation for Germany, Portugal and the UK is summarised in Table 1. Only in Wales and Scotland is the 'pure' SFP scheme being implemented.

The original idea was that a SFP entitlement would be established for each farm, based on that farm's receipt of direct payments in the base period 2000–2002. To determine the entitlement, the annual average payment would be divided by the average number of farmed hectares on which the claims were based. Thus, a farm might have a SFP entitlement on, say, 107 hectares, at a rate, say, of €162 per hectare, reflecting the fact that the farm's average receipt in the base period was €17,334 per annum over an average area of 107 hectares. For the farm to claim its full SFP in future years, it would have to farm (or maintain in good agricultural and environmental condition) 107 hectares. As noted above, certain land uses (forestry, permanent crops, and in most instances, fruit and vegetables) would render the land ineligible for the SFP. Furthermore, cross-compliance provisions apply across all the farmed area (not just the area on which a SFP is claimed).[4]

However, two main variants to this basic model are possible, as reflected in Table 1. First, rather than adopt full decoupling, Member States can retain some element of coupling, in an attempt to maintain farm production. Thus, for example, 25% of the old arable area payment can remain coupled to production. France in particular has made use of this option. The coupling provisions for the old livestock payments are complex, with Austria, Belgium, Denmark, Greece, France, The Netherlands, Portugal and Sweden adopting these provisions in various ways.

Second, rather than adopting the *historic* mode of making payments to a farm on the basis of that farm's historic entitlement, Member States can pool the SFP monies that would otherwise be paid in a particular region, and make payments on all eligible land on a flat-rate basis. This is the model to which Germany and England (but not Scotland, Wales and Northern Ireland) are moving; but for the moment they each have hybrid schemes involving a combination of the historic and flat-rate regionalised modes of payment. These country differences may well impact upon farmers' actual response to the decoupling of support implicit in the SFP, but this detail was not known to the respondents when they completed the survey (outlined below) in 2001/2002.

In passing, it should be noted that there is an EU provision to *modulate* the SFP. The first €5000 is exempt, but above €5000 a levy of 5% will ultimately apply, with the monies diverted to the rural development budget. In the UK, national modulation currently applies as well. Furthermore, from 2007 on, if budget funds are inadequate to meet all expected CAP expenditure, a new *Financial Discipline* can be triggered to reduce SFPs; and at the December 2005 meeting of the European Council, a decision was reached in principle to allow Member States to modulate payments at a rate up to 20%.

[4] The regulation specifies 18 EU directives, relating to the environment, public animal or plant health, and animal welfare, that must be respected; and authorises Member States to determine 'minimum requirements for good agricultural and environmental condition …, taking into account the specific characteristics of the area concerned …' (Council, 2003, Articles 3–9, and Annexes III and IV).

Table 1
Implementation of the SFP in Germany, Portugal and the UK

| Country | Full or partial decoupling? | Historic or regional (flat-rate) implementation? |
|---|---|---|
| Germany | Full decoupling, except for hops, tobacco (until 2009) and potato starch | – A flat-rate per hectare arable payment in each Länder<br>– A dynamic hybrid for livestock payments, comprising a flat-rate grassland payment and an historic element, switching (between 2010 and 2013) into a fully regionalised aid system |
| Portugal (excluding the Azores and Madeira) | Full decoupling for arable crops but not seeds; partial decoupling for some livestock premiums (e.g. for some bovine animals and sheep and goats) and olive oil and tobacco | Historic |
| United Kingdom | Full decoupling in all of the UK | |
| – England | | – A dynamic hybrid moving to flat-rate payments and fully regionalised by 2012 |
| – Wales | | – Historic |
| – Scotland | | – Historic |
| – N. Ireland | | – Static vertical hybrid |

*Source*: Agra Europe (2004); Horseman (2005); and European Commission (2007).

## Estimates of the likely impact on land use and food production of decoupling

The impact of the Fischler reforms on land use and agricultural production could be far reaching. Thus, it is not surprising that considerable effort has been expended on attempting to measure the effects. Indeed, Gohin (2006) reviews and assesses seven recent exercises. Brief details of some estimates for the EU-15, Germany, Portugal and the UK, of possible impacts are shown in Table 2. It is interesting that, although most published literature on the results from various economic forecasting models agrees in general about the likely direction of the impact of the reforms, there is less consensus on the level of the impacts in some sectors. This, in part, reflects model structure, but it is largely dictated by the supply response rate assumed by the modeller and, as Gohin (2006) points out, on how accurately the baseline position is modelled. On the whole, modellers have tended to assume that cereal and oilseed production was less 'tied' to the old arable area payments scheme (because farmers had the option to set-aside additional arable land) than was beef and sheep production, where livestock numbers had to be maintained to collect the headage payment in full.

The lack of consensus is, perhaps, most evident in the beef sector where the estimated number of animals in national or in the aggregate EU herd, is consistently less than present herd sizes. The range of estimates in respect of the reduction in numbers in the EU suckler herd is from as little as 3.2% (OECD, 2004) to 13.7% (European Commission, 2003). The Irish Agriculture and Food Authority (Teagasc, 2003) formulating estimates of numbers based on earlier data (the July 2002 proposals) and, therefore, perhaps not strictly comparable, postulated an even greater reduction in numbers of beef animals in the EU herd of 18%. In national terms, the scale of reduction in beef animal numbers ranges from 16.7% in the UK (Moss et al., 2005) to 29% in Germany (Offermann et al., 2004) and to as much as 36% in Portugal (Soares et al., 2004).

Table 2
Estimates of the impact of the 2003 CAP reforms on land use and agricultural production (% change on baseline)

| Geographical region | Date | Soft wheat area | Barley area | Oilseeds area | Beef (suckler) cow nos. | Beef production | Ewe nos. | Sheepmeat production | Source of estimate |
|---|---|---|---|---|---|---|---|---|---|
| EU-15 | 2008 | −7.5[a,c] | −7.5[a,c] | – | – | −7.5[c] | – | −7.5[c] | DEFRA (2003) |
| EU-15 | 2009–2010 | −2.6 | −0.9 | −2.9 | −13.7 | −2.7 | – | – | European Commission (2003) |
| EU-15 | 2007–2012 | −0.5 | −0.4 | −0.4 | −7.0 | −1.4 | −4.9 | −3.6 | Binfield et al. (2004) |
| EU-15 | 2008 | −2.2 | −2.5[b] | −2.8 | −3.2 | −0.6 | – | – | OECD (2004) |
| EU-15 | 2010 | −2.0 | −1.0 | – | −18.0 | −6.0 | −7.0 | −8.0 | Teagasc (2003) |
| Germany | 2012 | −9.0[a,c] | −9.0[a,c] | −7.0[c,d] | −29.0[c] | −15.0 | – | – | Offermann et al. (2004) |
| Portugal | 2010 | −7.5 | −7.0 | −100.0 | −36.0 | −12.0 | −1.8 | +6.7 | Soares et al. (2004) |
| UK | 2008 | −17.5[a,c] | −17.5[a,c] | – | – | −10.0[c] | – | −12.5[c] | DEFRA (2003) |
| UK | 2014 | −0.6 | −0.3 | −1.0 | −16.7 | −7.8 | −6.8 | −9.5 | Moss et al. (2005) |

*Notes*: –, not reported.
[a] All cereals.
[b] For barley, maize and rye together.
[c] Average of reported range of values.
[d] Oilseeds for human consumption only.

The range of estimates in respect of the consequent reduction in EU-15 production levels of beef is rather more conservative in nature. All projections are, however, for a reduction in aggregate production ranging from 0.6% (OECD, 2004) to 7.5% (DEFRA, 2003). In individual EU Member States, likely reductions in production are suggested at 15% in Germany (Offermann et al., 2004), 12% in Portugal (Soares et al., 2004) and 10% in the UK by 2008 (DEFRA, 2003). A more recent UK estimate produced using the FAPRI GOLD model suggests a more modest reduction of 7.8% (Moss et al., 2005).

The arable sector estimates reveal a consistent decline for both cereals and oilseeds. It is noted, however, that the projected changes in Germany and Portugal at around −9% (Germany, soft wheat and barley) and −7.5% (soft wheat) to −7.0% (barley), both Portugal, are higher than the EU across the board projections. DEFRA (2003) projections for the EU-15 for all cereals together are higher, at 7.5%. Moreover, in the UK, for all cereals, DEFRA (2003) suggest that the change in production will be a reduction in the range of −10% to −25%. The Moss et al. (2005) results, using the FAPRI GOLD model, are altogether more modest, for the UK at around −0.6% for soft wheat, −0.3% for barley and −1.0% for oilseeds, although these data assume a comparator date of 2014 rather than 2008.

As with cereals, it is also expected that a reduction in the area planted to oilseeds will be observed. Within the EU-15, the range of hectares planted extends from −0.4% (Binfield et al., 2004) to −2.9% (European Commission, 2003). In the UK, Moss et al. (2005) anticipate a change of −1.0% while in Germany the change is expected to be rather larger at about −7.0%. The Portuguese study, however, clearly states that, without production subsidy, it is expected that all oilseed crop production will end completely. Within Portugal, sunflower is considered to be very much a marginal crop and production in the past was largely a consequence of the presence of a production subsidy – in Portuguese it is known as Girassídio or Sunfloweridy. Without the subsidy, the crop shows negative returns and it is considered not worth the effort expended on its cultivation.

The sheep sector also shows projected declines in both numbers of ewes and, generally, meat production. In the UK, the projections suggest a decline in sheepmeat production of between 9.5% (Moss et al., 2005) and 12.5%, possibly as much as 15.0% (DEFRA, 2003). Moss et al. (2005) also suggest that the decline in sheepmeat production will be greater than the decline in the number of ewes kept, which implies counter-intuitively to the Portuguese estimates, that the slaughter-weight of individual animals is likely to decline.

## The postal survey of farmers

A postal survey was carried out in each study country during the winter of 2001/2002; full details are provided by Tranter et al. (2004). In the UK, farm incomes were then recovering slightly from their low point in 2000, but the sector had been very badly shaken by the outbreak of foot and mouth disease that had raged through 2001. Indeed, implementation of the survey was delayed because of the outbreak (and, earlier, because of the BSE crisis that had erupted in Germany in the autumn of 2000), and it was only embarked upon once the disease was contained. The postal survey, however, predated the launch of the Mid-term Review of the CAP in July 2002 (Commission, 2002).

The survey sample was around 4500 farmers in each study country. A four-page questionnaire[5] was used which included a stepwise approach to defining the new policy scenario and examining likely individual reactions. The questionnaire design and the procedure employed were as identical as possible in each country. The response rate was 40.2% for the UK, 36.8% for Germany and 33.4% for Portugal meaning at least 1400 'clean' responses for each country. These rates are particularly high for voluntary postal surveys of farmers. In addition, a series of on-farm interviews with 50 respondents in each country was carried out to act as a form of verification of the reliability of the postal answers and to 'tease out' reasons behind their answers to the postal survey questionnaire.

When respondents' characteristics were compared with the known overall national pattern of farm types, sizes and region, to check for sample bias before analysing the replies, it was found that the survey response might under-represent smaller farm businesses in both the UK and Portugal. However, an investigation into non-response bias, by testing the

[5] A copy of the questionnaire in English is available from the first-named author.

first third of responses received against the last third, found very few statistically significant[6] different features showing that this type of bias was not prevalent.

Tranter et al. (2004) reviewed examples of intentions surveys in agriculture worldwide and discussed problems in designing and carrying out such surveys and interpreting the evidence they provide. A crucial question not often asked is whether such surveys provide answers that actually mirror how farmers will really behave in the future. However, Thomson and Tansey (1982), Gasson et al. (1998) and Harvey (2000) did just this for the UK and found that most farmers actually did what they said they would, especially for relatively short-term decisions or actions. So, Tranter et al. (2004) concluded that, for a situation such as the introduction of a decoupled support system akin to the SFP, provided the questionnaire was designed properly, the sample was large and included a full range of farm types and sizes the results are liable to be reasonably accurate. But, it should be recognised that there might be a difference between asking farmers about how they might react to a *hypothetical* changed policy scenario and an *actual* change in policy. For example, would surveyed farmers have given the same set of answers following the publication of the Commission's plans in 2002?

The questionnaire began by asking for contextual details of the farm business, and demographic and attitudinal characteristics of the respondents. It then sketched a support scenario:

> Please imagine that crop payments will be detached from current land use. Thus, future payments will no longer depend on which crop you plant, the area planted or even whether land is planted at all. Instead, payments will be made at a flat-rate, on the basis of your average arable area claims during the previous three years. Our proposal will also affect the livestock sector similarly, with future payments being based on the average number of livestock units (cattle and sheep) for which the farm claimed payments in the previous three years.

This scenario corresponds, approximately, to the SFP subsequently adopted in the Fischler reforms although, as shown in Table 1, the method of implementation varies. Table 3 details the overall response by study country to four key questions relevant to the theme of this paper – would they alter their mix of farm activities; would they leave any of their land idle; would their intensity of production change; and would the amount of labour employed on their farm change. It shows, for example, that around 67–69% of the respondents said they would *not* alter their mix of farm activities if the proposed policy change were introduced. It is probably wise to interpret the responses as indications of the respondents'

[6] In order to test whether differences in replies to questions between the various sub-groups were likely to have occurred by chance or otherwise, the responses were tested for statistical significance. The replies were in three distinct forms. First, some replies, or variables, were in a continuous form, such as size of farm or age of farmer. These needed their differences in mean values to be compared using the Student *t*-test. Second, some replies were in the form of ordinal scales where, for example, agreement levels with statements were given scores. These were compared using the Mann–Whitney *U*-test. Third, some responses were in a 'discrete' or categorical form (i.e. they had a livestock farm or a crop farm). Here, differences in the proportional distribution of replies between such sub-groups were compared using the $\chi^2$-test. If there was no greater chance than 5% that such a large value of $t$ or Chi-square or $U$ statistic could have occurred by chance, the difference was stated to be statistically significant. The level of significance is shown as follows: where there is less than 5% probability that the observed difference would have occurred by chance the mark * will be recorded; where the probability is less than 1% the mark ** will be recorded; and *** where the probability is less than 0.1%.

Table 3
Response of survey respondents to four key questions about their behaviour under decoupling

| | Proportion of respondents (%) in | | |
|---|---|---|---|
| | UK | Germany | Portugal |
| Who responded | | | |
| *No* to the question: 'Would you alter your mix of farm activities?' (1) | 69.1 | 66.8 | 67.1 |
| *None* to the question: 'Would you leave any of your land idle?' (2) | 79.9 | 59.7 | 52.2 |
| *Remain unchanged* to the question: 'Would your intensity of production change?' (3) | 59.3 | 60.3 | 52.6 |
| *Remain unchanged* to the question: 'Would the amount of labour employed on your farm change?' (4) | 72.7 | 55.6 | 55.1 |
| *No* to (1) above, *none* to (2) above and *remain unchanged* to (3) and (4) above | 32.6 | 22.4 | 18.4 |

short-term intentions. It is interesting to see how close this proportion was for each of the three countries. The preponderant response to all four individual questions across the three survey countries was 'no change', with UK farmers indicating the least, and Portuguese farmers the most, intent to change.

There were some interesting differences. For example, in the UK, 73% of farmers with less than 100 ha farms said they would not alter their mix of farm activities, as opposed to 65% of farmers with 100 ha or more (***). Similarly, the older the respondent (51 and over, ***), and the earlier they left full-time education (up to and including 19, *), the more likely they were to say they would not alter their mix of activities.

Table 3 also shows (row five) the proportion of the respondents who said they would not alter their mix of farm activities or leave any of their land idle or change their intensity of production or their level of labour employed under the decoupling scenario. In effect, 32.6% of respondents in the UK, 22.4% in Germany and 18.4% in Portugal said: 'we would carry on as before making no changes at all to our farming systems'. These 'no change' respondents were not only numerous, they also formed much of the total area farmed by all respondents in each country: 25.6% in the UK, 12.4% in Germany and 29.1% in Portugal.

The above figures suggest there might be differences in farm size between farmers who said they would or would not change their systems under decoupling. Thus, this was investigated and it was found that in the UK and Germany those suggesting 'no change' had smaller farms on average than those who indicated that they would change whereas, in Portugal, the opposite trend was visible probably because of marked regional differences in size. However, only in the UK were these observed differences statistically significant (at the ** level).

Some would say those advocating 'no change' might be older than those planning change as they might be more set in their ways and be more ready to sit back and see what happens. Thus, the existence of such a difference was examined. Whilst in Germany no significant differences were found, these were significant in Portugal where the 'no change' group were younger (at the *** level) and in the UK where they were older (at the *** level). Why this was so is not clear but, for Portugal, it could be that the younger farmers are those who have relatively recently entered farming through the intensive fruit and vegetable route or who are tied-in to a grant-aided project, with restrictions on crop mix or

production structures changes. In addition, Alves et al. (2003) point out that older farmers in Portugal are concentrated in the extensive farming areas of the mountainous north.

Those who said they would alter their activity mix (some 32% of all respondents across all three countries), as a result of the introduction of decoupling, were then asked about the nature of their likely change. This was not only to obtain an assessment of the land use impact the suggested policy change would have on existing farm enterprises, but also to gauge the potential extent of farmers switching between enterprises, with decoupling now freeing them to move between sectors without fear of losing their direct payments.

Table 4 shows the nature of the respondents' proposed change in their *main* activity. It includes all respondents together, classified by main farm activity, including those who had answered they would not alter their mix of activities at all. The overall picture of a reduction in enterprises involving sheep and beef cattle, as a main activity, is most likely due to the breaking of the link between the amount of headage payments and livestock numbers. The predicted increases in dairying, and the results for cereals, probably reflect these farmers' belief that it will be necessary to expand the scale of their main activities in order to spread costs and become more competitive under any policy reform scenario. The general tendency for increases in other activities, such as permanent crops, pigs and poultry, horticulture and other vegetable and root crops under the category of general cropping, suggests that farmers perceived the possibility of an upturn in the relative profitability of these, less supported, sectors under the proposed policy change. However, it should be remembered that, under the actual Single Payment Scheme, farmers will not be able to switch to permanent crops and into horticulture without forfeiting their right to claim SFP on that land. The right-hand column reminds us that, as shown in Table 3, most respondents indicated that the suggested policy reform was unlikely to prompt them to make any immediate changes to their current mix of land use. This finding could well provide comfort to policy makers although it is interesting that pigs and poultry farmers, and those in horticulture, were the least likely to suggest they would not change at all.

The numbers across the columns of Table 4 do *not* sum to 100 because the changes shown in the first two columns are only for the *main* activity on the farm; the remainder represents predicted changes to secondary activities. As a result, it is the analysis of changes to these secondary activities, as well as the adoption of new activities which give the best guide to the amount of switching between enterprises that would result from the suggested policy change. The fact that over twice the number of cereal farmers said they

Table 4
Changes in main enterprise for respondents under decoupling by farm type, UK, Germany and Portugal together

| Main activity | Nature of change in activity (% of total) | | |
|---|---|---|---|
| | Increase | Decrease | No change |
| Dairying | 19.3 | 5.2 | 68.1 |
| Extensive sheep/cattle | 6.8 | 14.0 | 69.8 |
| Intensive sheep/cattle | 6.9 | 9.9 | 70.7 |
| Cereals | 10.2 | 10.0 | 64.4 |
| General cropping | 9.9 | 3.2 | 65.4 |
| Permanent crops | 10.4 | 3.8 | 67.9 |
| Pigs/poultry | 10.9 | 3.6 | 59.9 |
| Horticulture | 12.2 | 4.1 | 62.2 |

Table 5
Respondents indicating they would adopt a new activity under decoupling, the UK, Germany and Portugal together

| Activity to be adopted | Proportion of respondents (%) |
|---|---|
| Dairying | 7.1 |
| Extensive sheep/cattle | 9.0 |
| Intensive sheep/cattle | 9.5 |
| Cereals | 7.0 |
| General cropping | 8.2 |
| Permanent crops | 7.5 |
| Pigs/poultry | 7.5 |
| Horticulture | 9.2 |
| Forestry/woodland | 14.1 |
| Non-food crops | 12.8 |
| Other activities | 8.1 |

would increase, rather than decrease, activities such as permanent crops, horticulture and general cropping, might be thought to support fears that decoupling would have a destabilising effect on fruit and vegetable markets. However, the numbers of respondents predicting this change were relatively small, representing only around 7% of all the mainly cereal farmers in our sample.

Table 5 shows the proportion of respondents predicting the adoption of one or more new activities. It seems from these results that the proposed new adoption of activities in numbers is pretty evenly spread, apart from more for non-food crops and forestry and woodland. Again we should caution that under the SFP scheme actually adopted, a switch to horticulture, permanent crops or forestry might not be attractive. The outcome is slightly biased by the Portuguese results, as considerably more of their farmers anticipate a move into an alternative activity. There, as in the UK, but to a lesser extent, forestry was the most popular new choice.

As mentioned above, a fear associated with decoupling is the expectation that large areas would be left idle with the associated problems of landscape damage, unemployment, fire risk from an increase in scrub and the possible loss of biodiversity. Table 6 shows, as summarised in Table 3, that not only would at least 52% of farmers in each of the three countries leave no land idle at all (in the UK this figure is around 80%), but considerable numbers also would idle less than half their land. Within these overall figures, there were interesting statistically significant differences by farm and farmer type. For example, in the UK, relatively more of the respondents with 100 ha or over would idle

Table 6
Respondents' answers to the question of whether they would leave any of their land idle under decoupling

| Action | Proportion of respondents (%) | | |
|---|---|---|---|
| | UK | Germany | Portugal |
| None | 79.9 | 59.7 | 52.2 |
| Less than half | 15.4 | 28.7 | 24.4 |
| Around half | 3.1 | 4.7 | 5.6 |
| More than half | 0.7 | 2.5 | 8.5 |
| All | 1.0 | 4.4 | 9.3 |

land than those with less (***) whereas, in Portugal, relatively more of those with less than 50 ha farms would idle land than those with larger farms (*). In the UK, farmers who had 50% or more of their income from non-farm sources were more likely to leave some land idle than those who obtained the majority of their income from the farm (***). In Portugal, considerably fewer of the respondents who said a successor was definitely or very likely to have been identified would leave land idle, compared to those who had not identified one (***).

## Conclusions

The results from the postal survey of farmers in the UK, Germany and Portugal, suggest that any stakeholder misgivings about decoupling support for farmers were misfounded in terms of food production, land use and rural development issues. They suggest that there would likely be relatively little short-term change from the *status quo* if the proposed changed decoupled policy scenario had been introduced. Furthermore, it has been shown that a striking feature of the survey results is *how very similar* the responses were, whether they were from the UK, Germany or Portugal, three countries with widely different rural and farming situations both culturally, geographically and politically.

It is interesting to compare the survey results for a decoupled scenario without cross-compliance measures, with the results of some forecasts for the three study countries, after the introduction of the SFP (with cross-compliance) presented in Table 2. There, it can be seen that beef production in Germany, Portugal and the UK was forecast to fall by 15.0%, 12.0% and 10.0%, respectively; in our survey (Table 4), for main enterprises in the three countries together, 14.0% would decrease their extensive sheep/cattle enterprises and 9.9% would decrease their intensive sheep/cattle enterprises. To set against this, around 7% said they would increase their main sheep/cattle enterprises whether extensive/intensive. Summarising, survey results, whilst suggesting there would be a fall in beef production, indicate that this would not be quite as large as that forecasted by the modelling studies.

Turning to the equivalent comparison for cereals area, Table 2 shows forecasts for Germany, Portugal and the UK of a fall of 9.0%, 7.5% and 17.5%, respectively. However, the survey results for cereals in Table 4 show that whilst 10.0% of the respondents would decrease their cereals, 10.2% would increase this activity indicating that, in our survey, perhaps a more positive attitude towards cereal production in a decoupled world was shown than the econometric forecasts reviewed here.

Around 30% of the respondents in each study country said they would alter their mix of farm activities when support payments were decoupled from current land use and production. With the exception of forestry and woodland, the spread of potential new enterprises the farmers said they would undertake on the introduction of the proposed decoupled support scheme was very similar; this finding was markedly skewed by results from Portugal, where not only did proportionately more of their farmers opt for taking up a new activity, but forestry and woodland was the most popular choice. Given the options actually available under the Single Payment Scheme regarding the eligibility of land for SFPs, the responses might have differed.

There was, though, one issue of marked difference between the study countries highlighted above – that of the likelihood of land abandonment once decoupling took place. Whilst at least 50% in each country said they would leave no land idle, and considerable

numbers would idle less than half their land, in Portugal nearly 20% would idle all or more than half their land, a much larger proportion than in Germany and, in turn, this was much more than in the UK. In Portugal there was some evidence that the total area idled would be largely due to small extensive farms being abandoned in the northern mountain areas (Alves et al., 2003). Again, it may well be that the actual provisions in the Single Payment Scheme, particularly on cross-compliance, will lead farmers to abandon less of their land.

All in all then, the responses of farmers to the proposed decoupling of support, whilst at times somewhat difficult to interpret, have provided valuable evidence to suggest that there would be relatively few practical management problems in the short-term at the farm level as the SFP is introduced.

It will, of course, be some years before farmers adjust to the new support arrangements: it takes time to assess the changes, and their implications for the farm business; and it would be understandable if many farmers initially adopted a 'wait and see' stance, worried that if they did make early changes without fully understanding the ramifications, they might prejudice their eligibility for the SFP. However, whilst only a theoretical possibility at the time of our survey in 2001/2002, decoupling (in the form of the SFP) has now happened. Thus, revisiting the German, Portuguese and British farmers who responded to the survey, in 2008 or thereabouts, to see how they have acted, could be a useful check of the predictive ability of farmer intentions surveys of the sort reported here. It would also be a good way to review the different behaviours consequent on a real policy outcome (the SFP) compared with the hypothetical one of a very similar nature examined here.

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