

## Introduction

1. The purpose of this discussion paper is to provide a background to the recent Common Agricultural Policy (CAP) reform package as well as looking at the potential economic impacts of these reforms on not just Scottish agriculture but also in terms of implications for the environment and the wider rural economy.

## The History of the CAP:

2. Agriculture is one of the most heavily supported industries in both the European Union and throughout the developed world. Although agriculture accounts for just 1.7% of the EU's gross domestic product and 4.2% of its workforce it takes up half of the EU's total annual budget. This amounted to €44.3bn in agricultural aid for 2003.
3. The rationale for the allocation of such a large part of the EU Budget must be viewed in its historical context. The 1957 Treaty of Rome, which formed the basis of the CAP was only 12 years after the end of the Second World War and politicians were keen to achieve self-sufficiency in food products and ensure famine and food shortages were consigned to history. Along with the need to become self sufficient several other reasons were offered to support the case for a CAP:
  - Many agricultural commodities have low demand price elasticities. Agricultural supply is particularly sensitive to shocks, especially in the form of inclement weather conditions. These characteristics imply that agricultural markets are unstable, giving rise to producer and consumer risk, uncertainty and instability of farm incomes.
  - Economic theory suggests that in advanced economies farm incomes will tend to rise more slowly than in other parts due to the low income elasticity of demand for agricultural goods in aggregate. i.e. as our incomes increase our consumption of agricultural products will not increase in proportion.
  - Employment is created both directly and indirectly by agriculture. In 1957 when the treaty of Rome was signed there were 17.5 million farmers employed directly by the 6 founding states, compared to less than 7 million today in a union of 15 members.

## Operation of the CAP:

4. The CAP developed during the late 1950's and early 1960's and was based largely upon the idea of providing agricultural subsidies through intervention in the markets. For each commodity covered, an intervention price is set that acts as a floor. If the market price falls below the intervention price level then the EU buys up any product offered for sale at the intervention price level. In Diagram 1 (Annex A) the intervention price is set at  $PI$  which is higher than the domestic market clearing price of  $PD$ . As the price that farmers receive for their produce had been guaranteed supply is  $OI^1$  while demand is  $OI$ . To ensure the price stays at the intervention price the European Agricultural Guarantee and Guidance Fund (EAGGF) buys up the excess  $OI^1 - OI$ , artificially increasing the demand curve

from AD to AD1. Given this intervention output and prices are higher than the market clearing values of OD, PD.

5. Running in parallel to this, there is protection offered to EU producers by imposing duties on imports which act as a barrier to imported goods. In Diagram 1 (Annex A) PW represents the world price and foreign producers could expect to face duties of at least  $PI - PW$ . This protection is now more tightly regulated due to the 1994 Uruguay Round agreement on agricultural trade liberalisation and the Doha trade round launched in 2001 has the ultimate aim of phasing them out altogether, although agreement on this principle has yet to be reached.
6. To enable EU goods to be sold on the world markets export subsidies are paid to farmers to cover the gap between the EU price and the world price. In Diagram 1 a subsidy of  $PI - PW$  would be paid on exports.

### **Economic Welfare of Agricultural Support:**

7. Using partial equilibrium analysis we can measure the impact of support on agriculture by treating the sector as independent to the rest of the economy. In Diagram 2 (Annex A) if the prevailing price was the world price  $P_w$  for agricultural products, domestic demand would be  $OD^1$  with domestic producers supplying  $OS^1$ . This would leave imports to make up the difference ( $OS^1 - OD^1$ ). Setting the domestic price above  $P_w$  at  $PD$  through export levys reduces domestic demand to  $OD^2$  and domestic supply increases to  $OS^2$  and imports decrease to ( $OD^2 - OS^2$ ).
8. Using partial equilibrium analysis we can see that there is a transfer of economic surplus from consumers to producers equivalent to the area PD,  $P_w$ , E, F. The government will raise a levy equivalent to F, G, H, I and introduce a dead-weight loss of EFG and HIJ to the economy relative to the market equilibrium position.
9. General equilibrium analysis removes the restriction of treating the agricultural sector in isolation. In particular it takes account of the effects of support on other sectors through changes in resource allocation. Support uses government resources that may have been used more effectively elsewhere – hence resulting in a mis-allocation of resources. In the 2002 financial year €2.766 bn was paid by EAGGF in arable and livestock direct payments premia to 146 thousand UK recipients<sup>1</sup>. However it would be wrong to assume that farmers are the sole beneficiaries of the support mechanisms, the OECD estimates that only 25% of the benefits of price support accrue to farmers – with the majority, 40% going to input supplier profits<sup>2</sup>.

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<sup>1</sup> Further information on EU expenditure can be found at:  
<http://europa.eu.int/comm/agriculture/publi/reports/21century/chap3.pdf>

<sup>2</sup> A copy of the OECD paper can be found at:  
<http://www.sourceoecd.com/data/cm/00009457/5103011E.pdf>

## The Evolution of the CAP

10. Increases in agricultural efficiency coupled with high domestic prices ensured that during the 1960's the European Union moved from being a net importer to a net exporter. The rapid increase in productivity continued in the 1970's due to dramatic improvements in yields. However, this began to outstrip domestic demand leading to unmanageable EU surpluses which were bought by the EU or exported, increasing the size of the budget. Between 1981 and 1991 agricultural spending increased from around 10bn ECU to 30bn ECU.
11. International unease with the levels of direct and indirect support that was being provided to the agricultural sector in developed countries brought pressure on the EU to change how the CAP operated during the Uruguay Round of the GATT (1986 – 1993). This round sought to reduce the levels of protectionism and distortion brought about by agricultural policies such as the CAP.
12. The Producer Support Estimate (PSE) is an OECD measure of the annual monetary support that is transferred to producers from consumers and taxpayers as a result of various agricultural policy measures. The PSE is made up of two types of support. The first of these is indirect or 'invisible' support, which is referred to as Market Price Support (MPS). MPS arises as a result of those policies that affect consumer and producer prices. It is thus support in the form of higher prices paid by consumers, and is calculated by the difference between domestic and world price levels. The second type of support is direct payments to agriculture, or Budgetary Payments. This refers to direct aid to producers, such as payments based on output, area of crop planted and input use<sup>3</sup>.
13. These budgetary and international factors along with the realisation that CAP was not efficiently sustaining farm incomes led to the MacSharry reforms of the CAP between 1993-1996 and extended by 'Agenda 2000' reforms. These reforms led to a reduction in support prices but were compensated for by an increase in direct payment regimes. MacSharry also introduced further constraints upon livestock production by introducing headage payments and quotas. For schemes such as the Beef Special Premium Scheme farmers had to have an entitlement to claim as well as the animal to claim upon. These were initially intended to be short-run measure to compensate farmers for the cuts in direct support however they were never phased out despite the impacts upon economic welfare.
14. The changes to the regime moved the burden of income support from the consumer (by reduced price support for the end product) towards the taxpayer (by making direct payments a central part of CAP support). The impact of all these reforms was to push up the CAP budget 24% between 1992-1996 along with farm incomes. The success of these reforms proved short lived, as world commodity prices deteriorated during the late 1990's and farm incomes began to fall, there was a corresponding increase in the intervention stocks for beef and dairy products. Recent OECD estimates show that the transfer efficiency of market price support between consumers / taxpayers and farmers means

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<sup>3</sup> Tables showing Scotland's PSE from 1990 can be found at:  
<http://www.scotland.gov.uk/about/ERADA/AgriPol/00017653/pse1012.pdf>

consumers and taxpayers have to pay £4 for each £1 gain in farm household income.

## **The Future of the CAP**

15. In June 2003 European Ministers reached an agreement on Reforming the Common Agricultural Policy (CAP) which marked a significant change in European agricultural policy<sup>4</sup>. It signalled a move away from subsidies 'coupled' directly to commodity production towards 'decoupled' support in the form of an annual Single Farm Payment (SFP). The SFP may be based on either the amount of subsidy received in the past or the amount of agricultural area farmed, or a combination of the two rather than what farmers produce.
16. The intention with this shift is to create a more market-orientated policy as farmers should be able to react to market signals (such as the price received for their goods) rather than produce to receive the appropriate level of subsidy. It has been recognised that farming contributes to more than simply the production of commodities and is instrumental in maintaining rural communities and the environment: the so called multifunctionality of agriculture. Consequently, the Agreement offered considerable flexibility in terms of the degree and nature of decoupling such that positive impacts from farming can be enhanced and negative impacts mitigated. The agreement was also designed to meet the EU's commitments under the Doha Development Round that envisaged:
  - Substantial improvements in market access.
  - Reductions of, with a view to phasing out, all forms of export subsidies.
  - Substantial reductions in trade-distorting domestic support.

## **Assessing the Impacts**

17. Attempts to assess quantitatively and precisely the impacts of the new agreement are hindered by several uncertainties. First, the flexibilities offer a wide range of options that could lead to no countries having the same combination of reform packages. Second, disentangling the effects of the Agreement from the future influence of other factors such as global market prices, exchange rates and trade rules is difficult. Third, given the radical nature of the policy change, there is little definitive prior evidence or formal modelling to judge how farmers (both in Scotland and elsewhere) will respond. Fourth, the variation across Scotland in terms of farming systems, environmental conditions and contribution to local economies means that regional variation in impacts is inevitable, but difficult to characterise accurately due to the first three points. Nevertheless, analytical insights can be offered by considering qualitatively the types of impacts likely to arise under different assumptions or scenarios.

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<sup>4</sup> [http://europa.eu.int/comm/agriculture/capreform/index\\_en.htm](http://europa.eu.int/comm/agriculture/capreform/index_en.htm)

## **Economic Efficiency Issues**

18. The current CAP involves significant bureaucracy. Subsidy schemes entail multiple form filling and farm inspections plus compliance with complex (sometimes cross-scheme) rules and artificial production constraints such as quotas. This is all costly in terms of the time and effort spent on non-productive activities, but also in terms of lost flexibility and lack of market responsiveness for the overall industry. Although farmers will still be subject to cross-compliance (CC) and required to maintain land in 'Good Agricultural and Environmental Condition' (GAEC), the removal of most of the existing bureaucratic restrictions will increase the 'freedom to farm' and generate economic efficiency gains as resources can now be allocated in a more productive way.
19. Coupled subsidies also have a tendency to slow, but not halt, the process of rationalisation. Efficient producers wishing to expand (or enter a sector) are hindered by the bureaucracy whilst inefficient producers, often on very low incomes, are effectively trapped by the need to keep farming in order to receive support payments. Decoupling releases the latter group from the need to keep farming yet ensures that they will continue to receive support payments. Indeed, since the support payment will be based on those received in the past whilst (apart from CC and GAEC) most of the costs of farming may no longer be incurred, the net income position of such farmers will improve. At the same time, efficient producers will have greater scope to expand and/or alter their farming systems - partly because other farmers factors of production (but not necessarily their land) will have withdrawn from active farming. If farmers choose to leave farming they will be able to sell on their entitlements enabling others to receive the SFP, providing there is eligible land to attach the entitlement to. Again, this will generate economic efficiency gains since there is acknowledged to be huge variation in the technical and allocative performance of farms.
20. It is important to note that the economic efficiency gains will entail resource adjustments. The overall size and composition of the agricultural sector, including its regional distribution, will change. The number of agriculturally active farmers will fall, as will the number of people employed solely in agriculture. Whilst it is unlikely that land will be abandoned, much of it may be managed less intensively.

## **Social and Environmental Issues**

21. Even in rural areas, agriculture is neither the dominant employer nor the dominant economic activity. Future Skills Scotland's report into the rural labour force found that only 4% of the rural labour force was employed in agriculture, compared to 16% in wholesale and retail and 18% in public administration, education and defence<sup>5</sup>. Nevertheless, it is highly visible and is acknowledged to contribute to broader economic activities and to cultural aspects of rural communities. Linkages to other economic activities include explicit market ties to the suppliers of goods and services (e.g. fertilisers and fencing) and downstream

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<sup>5</sup> A copy of the report can be found at:

[http://www.futureskillscotland.org.uk/uploadedreports/RURAL\\_SUMMARY\\_2003.pdf](http://www.futureskillscotland.org.uk/uploadedreports/RURAL_SUMMARY_2003.pdf)

processors (e.g. hauliers and abattoirs), plus less explicit non-market ties to tourism businesses (e.g. B&Bs and visitor centres). The decoupling of support thus has implications for the size of these related sectors, including their employment levels.

22. It should be noted that decoupled payments still represent a transfer of funds into rural areas. The difference is that recipients will now have greater discretion as to how they spend it. It may be that (at least a proportion of) this discretionary spend will continue to be local, generating alternative economic activities (and employment) in rural areas. Unlike the current agricultural linkages, the nature and strength (i.e. multiplier effect) of such alternative economic linkages is poorly understood.
23. Changes in the extent and nature of agriculture will also impact on the environment. This may be in terms of easily observed characteristics, such as landscapes, but also less visible aspects such as biodiversity and water quality. In some cases, decoupling may enhance the environment through, for example, reducing grazing pressure or the risk of water pollution. However, many valued environmental features require active land management, for example through mixed grazing of cattle and sheep and decoupling may lead to negative impacts. In some instances, extreme rationalisation of a sector into a few, very intensive production units could cause localised environmental problems.

### **Flexibilities Available to Scotland**

24. The economic efficiency gains arising from decoupling are likely to be significant. However, the necessary adjustment process will take some time and is likely to be characterised by market volatility as supply-chains adjust. Hence consideration should be given to the scope for facilitating the adjustment process such that short-term responses and market uncertainties do not compromise potential long-term gains. In addition, the possible negative social and environmental impacts arising from the adjustment process represent genuine concerns and some consideration should be given to whether and how they could be mitigated. The flexibilities available to Scotland under the Agreement offer three ways of addressing all of these issues.
25. *Recoupling*. This entails partial retention of one or more of the existing commodity schemes such that farmers are still obliged to farm in particular, if familiar, ways to receive (at least part of) their decoupled payment. One advantage of this approach is that everybody knows what to expect and it would probably maintain existing production structures and production volumes and their allied upstream and downstream industries.
26. *National Envelope*. This entails top-slicing decoupled payments and then obliging farmers to undertake certain activities in order to access the pooled funds. The required activities would focus on quality production and/or environmental enhancement. The main advantage of this approach is that it would allow some control to be exercised over the rate and direction of resource adjustments without freezing the current pattern of production with its acknowledged inefficiencies. It would be particularly suited to addressing concerns about short-

term market uncertainty compromising long-term viability of certain supply-chains. *NB at the time of writing the details on the operation of the National Envelope were not available; the use of the Envelope as a short-term transitional instrument may not be permitted by the Commission.*

27. *Modulation.* This entails top-slicing decoupled payments from Pillar 1 (production support funds) to Pillar 2 (rural development and environmental funds) and then allowing farmers access to the modulated funds in return for undertaking certain activities. Unlike expenditure under the National Envelope, the range of activities is already known and is laid-out in the Rural Development Regulation (RDR). As with the National Envelope, the main advantage of this approach is that it would allow some control to be exercised over the rate and direction of resource adjustments without freezing the current pattern of production. It would be particularly suited to addressing concerns about social and environmental impacts.
28. Relative to full decoupling, all three of the above flexibilities involve a degree of extra bureaucracy and a reduction in the size of decoupled payments to farmers. To put it another way, all three flexibilities will reduce the amount of public funds over which farmers have discretion to spend according to their own preferences. The judgement to be made is whether reducing this discretion is merited in terms of wider benefits that might arise in terms of economic, social and environmental outcomes. That is, concern for the position of individual farm businesses needs to be viewed in the wider, multifunctional context of viability of supply-chains, local economies and rural areas.
29. In the case of recoupling, most, if not all, of the economic efficiency gains offered by decoupling will be undermined through freezing the current pattern of production. This does little to help the plight of low efficiency producers nor the aspirations of efficient producers and, in the longer-term, the ability of Scottish agriculture to compete internationally.
30. By contrast, operating schemes under both a national envelope and/or national modulation offers the possibility of directing the adjustment process in a more positive manner. The two approaches differ only in as much that the specific types of schemes that can be funded under either are slightly different and, at least until 2006, national modulation attracts additional match funding from the UK Treasury.
31. A scheme funded by the National Envelope offers the possibility of smoothing the transition from coupled to decoupled payments. This should enhance economic efficiency gains, but in a managed way, in essence by seeking to manage commodity markets towards a more sustainable future. Such a scheme might also have environmental benefits, or alternatively a specific environmental scheme could be funded.
32. Schemes already available under the current RDR, and others available after 2007 when the RDR will be revised, have a more specific remit towards rural development, including environmental measures. This implies that they may address social and environmental concerns in rural areas, by promoting new

economic activities and/or rewarding different outputs from current activities rather than seeking to preserve agricultural activities per se.

## **Conclusion**

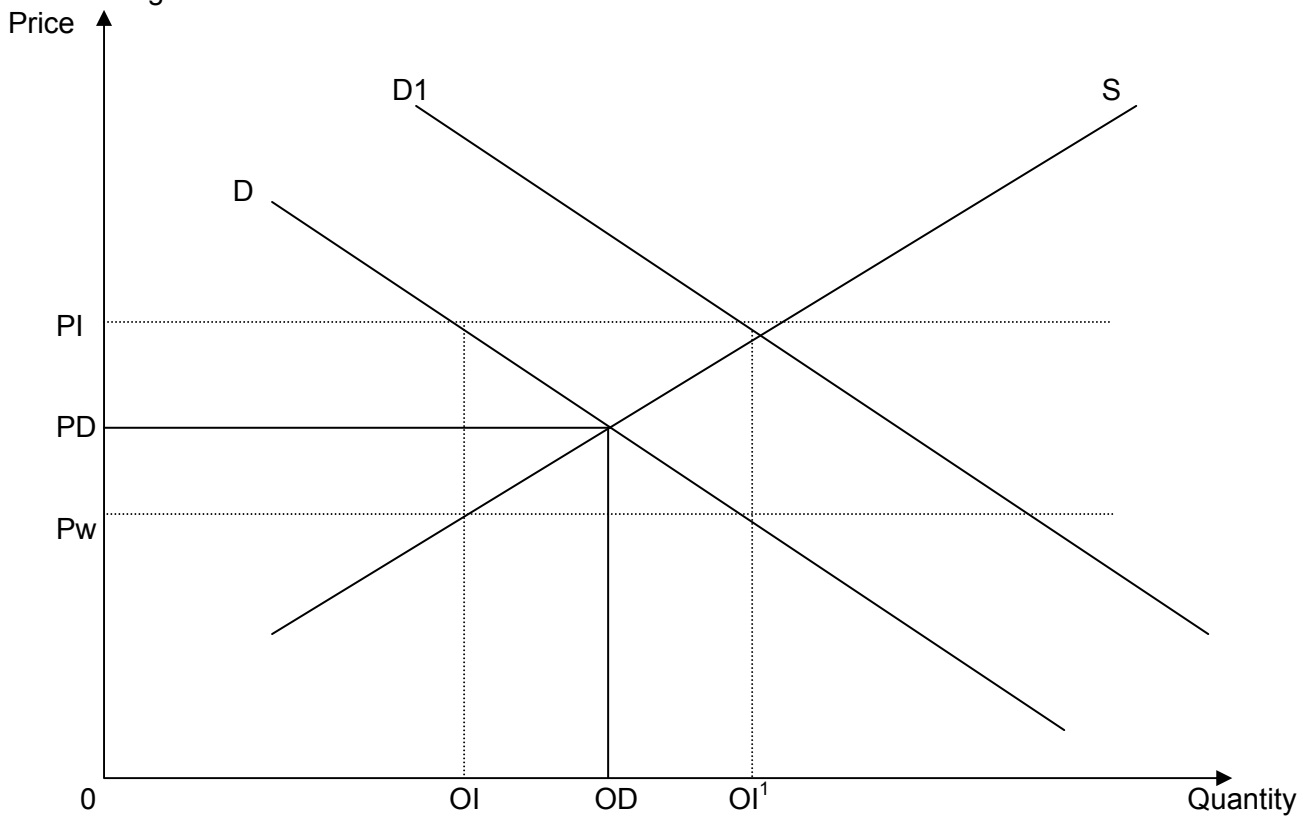
33. The reform package agreed in June 2003 can be seen as part of a process that will see the CAP evolve from a agricultural production based support regime to be one that is looking at a wider environmental and rural development issues. In the absence of definitive, quantitative analysis of potential impacts, decisions on how best to deploy the flexibilities available in Scotland should be guided by strategic objectives. These are laid out in various official documents, notably the Forward Strategy for Scottish Agriculture<sup>6</sup>. The list of issues is not exhaustive, nor has explicit consideration been given to particular commodities or parts of Scotland. Nevertheless, this paper seeks to inform the debate on the key issues facing agriculture rather than put forward possible solutions on how sustainable agriculture can be achieved.

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<sup>6</sup> Further details are available at:  
<http://www.scotland.gov.uk/library3/agri/fssa.pdf>

# Annex A

## Diagram 1



## Diagram 2

