

## **SESSION 4A**

# **THE IMPACT OF EUROPEAN ENLARGEMENT**

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**An introduction to the enlargement of the European Union: policy objectives and instruments in the fields of agriculture and rural development**

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**ABSTRACT**

Enlargement of the European Union to include ten new countries is poised to take place in May 2004. But the accession of ten new states poses a considerable challenge to the EU's Common Agricultural Policy. New budgetary limits were established in October 2002 and a ten year transitional phase in of CAP direct payments were agreed in December 2002. The June 2003 reform of the CAP partially broke the linkage between production and direct payments, addressing to some extent the concerns that accession would boost production in the acceding countries. Acceding countries must continue to put in place reforms to their domestic agricultural sectors to meet EU standards.

**INTRODUCTION**

The collapse of the Berlin wall in 1989 was a momentous event in the history of Europe. But this profound political change left a vacuum: the European Union (EU) would either have to act decisively and embrace the newly independent states of the former Soviet Union or wait and see if those countries would stabilise and create functioning democracies by themselves.

Politically there was an opportunity to establish a new order in terms of stability, justice and democracy as well as increasing the EU's influence on the world stage. Economically there was the potential to greatly expand the single market and boost economic growth (European Commission, 1999). Most importantly there was the opportunity to bring wider peace and security to Europe.

The EU grasped the opportunity, prompted particularly by the governments of Germany and the UK. In 1990 the EU introduced funds (PHARE and TACIS) to support transition and rural development in the newly independent central and eastern European states. Three years later at the Copenhagen Summit in June 1993, EU Heads of State agreed that countries in central and eastern Europe (CEECs) that so desired could become members of the EU (Table 1).

At the same time it stated that accession would only take place if a country were able to assume the obligations of membership by satisfying the economic and political conditions. The EU's capacity to absorb new members would also be an important consideration. This paper focuses on the challenge facing the EU's Common Agricultural Policy (CAP).

Table 1. Key dates towards enlargement

Year	Event
1989	The fall of the Berlin Wall
1990	EU starts its PHARE programme to support transition in CEECs
1991	EU and CEECs start signing Europe agreements
1993	EU agrees criteria for new members
1994	Hungary and Poland apply for membership
1995	Austria, Finland and Sweden join the EU
1995/6	Eight other CEECs apply to join the EU
1997	EU opens negotiations with six candidates
1998	Screening of agricultural legislation of six candidates
1999	EU opens negotiations to all 10 CEECs
2000	EU sets out position on institutional changes
2001	EU finalises negotiating positions with six CEECs
2002	EU makes its agricultural offer to CEECs
2003	Treaty of Accession signed in Athens
1 May 2004	First new members join

## OBJECTIVES AND PRINCIPLES OF ENLARGEMENT

As in all European enlargements (Table 2) the objective is to create a 'win-win' situation for existing members and new candidates. This enlargement will create a large economic area of up to 500 million consumers (compared to the current 370 million). Liberalised factor and goods markets, common rules of trade and production and, eventually a common currency will allow for a better allocation of resources and greater economies of scale. This in turn would provide higher growth and lower inflation for the area as a whole and improve the EU's competitive position in a world carved up between the US, EU and Japan.

However these benefits will not be instantaneous or evenly spread. For a long period after enlargement substantial adjustment pressure at the sectoral and regional level will be unavoidable. This could cause economic, social and political tensions.

Furthermore this enlargement differs from previous ones in that there are more acceding countries (ten compared to three at the most in previous enlargements) and these countries are lagging economically to a greater extent. In particular the heavy bias of their economies towards

agriculture and the low capita income of the rural population creates a massive challenge to the integration of agricultural policies.

So as to encourage the benefits and mitigate the costs of enlargement, the EU set three broad criteria for membership. Acceding countries must meet the following conditions:

1. Political criteria: stability of institutions guaranteeing democracy, the rule of law, human rights and respect for and protection of minorities
2. Economic criteria: the existence of a functioning market economy, as well as the ability to cope with competitive pressures and market forces within the Union
3. Capacity to take on the obligations of membership ('acquis'): restructuring the country's legal and administrative systems to put into effect the EU's policies so as to adhere to the aims of political, economic and monetary union

Table 2. Previous and current enlargements

Country	Request	Negotiations started	Entry
UK	10.05.67	30.06.70	01.01.73
Denmark	11.05.67	30.06.70	01.01.73
Ireland	11.05.67	30.06.70	01.01.73
Greece	12.06.75	29.01.76	01.01.81
Portugal	28.03.77	17.10.78	01.01.86
Spain	28.07.77	05.02.79	01.01.86
Turkey	12.04.87		
Austria	17.07.89	01.02.93	01.01.95
Cyprus	04.07.90	31.03.98	01.05.04
Sweden	01.07.91	01.02.93	01.01.95
Finland	18.03.92	01.02.93	01.01.95
Hungary	01.04.94	31.03.98	01.05.04
Poland	08.04.94	31.03.98	01.05.04
Romania	22.06.95	01.02.00	2007
Slovakia	27.06.95	01.02.00	01.05.04
Latvia	13.10.95	01.02.00	01.05.04
Estonia	28.11.95	31.03.98	01.05.04
Lithuania	11.12.95	01.02.00	01.05.04
Bulgaria	14.12.95	01.02.00	2007
Czech Rep	23.01.96	31.03.98	01.05.04
Slovenia	10.06.98	31.03.98	01.05.04
Malta	05.10.98	01.02.00	01.05.04

Each applicant country was judged independently on meeting the criteria with reports published regularly advising the applicants on their performance in raising standards to meet the criteria. Once the criteria were met, negotiations began.

The EU's stance in the agricultural negotiations (the 'agricultural chapter') was based on ensuring that its position

- was compatible with the concept of the application of the 'acquis' as it stands at the time of accession;

- was supportive of the efforts made by the acceding countries to restructure and modernise their agricultural economies; and
- respected the expenditure ceilings agreed at Berlin in 1999 and subsequently in Brussels in 2002 (European Commission, 2002).

## **THE AGRICULTURAL CHAPTER (CHAPTER 7)**

Agriculture is the largest of the negotiation chapters and can be split roughly into:

1. Direct payments – made up of EU Regulations that are directly applicable in each new Member State
2. Veterinary and phytosanitary rules – made up largely of EU Directives that must be transposed into national legislation. This is a substantial task.

These two policy areas make up the ‘acquis’, which must be implemented from the date of accession, subject to specific arrangements set out below (European Commission, 2003). Transitional arrangements were agreed but these are limited in time and scope. In the veterinary and phytosanitary sector, transitional periods were negotiated on the basis that there should be no increased risk to public, animal or plant health in the EU.

### **Direct payments**

Direct payments to farmers will start at 25% in 2004, 30% in 2005, 35% in 2006 and 40% in 2007 of the rate applying in the current EU (EU-15), increasing by further steps of 10% per year until they reach 100% of the EU-15 rate in 2013. These payments may be topped up as follows:

1. By 30% more than the rates specified above using national funding although there is provision to switch some rural development funds into top-ups up to 2006
2. By matching the rate of national direct payment schemes as at 2003, increased by 10%

In each case the result of the topping up cannot result in a level higher than the EU-15 payment.

### **Single Area Payment Scheme**

New Member States have the option of paying a decoupled area payment, equivalent to the reformed Single Farm Payment, rather than applying the standard IACS payments as currently applicable in the EU-15. Following the 26 June CAP reform, the Single Farm Payment (SFP) is to be introduced to the EU-15 between 2005 and 2007 with Member States given considerable flexibility over the extent of conversion from the current IACS schemes to the SFP.

The Single Farm Payment is limited by a financial envelope that is:

- Determined as the sum of EU funds that would be available in the new Member States for granting direct payments under the standard scheme
- Calculated according to the relevant EU rules and on the basis of quantitative parameters (base areas, reference yields – Table 3)
- Adjusted using the relevant percentages specified in the gradual introduction of payments (see above)

Table 3. Negotiated parameters for support payments (Inside Track, 2003)

Country	Base area (ha)	Reference yields (t/ha)	A/B sugar quota (t)
Cyprus	79,000	2.30	0
Czech Republic	2,253,600	4.20	454,862
Estonia	362,827	2.40	0
Hungary	3,487,792	4.73	401,684
Latvia	443,580	2.50	66,505
Lithuania	1,146,633	2.70	103,010
Malta	4,600	2.02	0
Poland	9,454,671	3.00	1,671,927
Slovakia	1,003,500	4.06	207,432
Slovenia	125,200	5.27	52,973

There are transitional country-specific situations which derogate from the general provisions above as to the level of payments and the state aids that apply.

### Phytosanitary measures

Veterinary and phytosanitary measures must be applied in the new Member States in compliance with the 'acquis'. While veterinary aspects are not relevant to this paper, transitional measures apply in the phytosanitary aspects as follows:

- Slovenia, Cyprus, Malta and Latvia have a 5 year transitional arrangement from the quality requirements for seeds
- Poland and Lithuania have transitional arrangements until 1 January 2006 regarding legislation on potato ring rot.
- Lithuania has a transitional arrangement until 31 December 2010 in relation to the payment of remuneration for plant variety rights
- The Czech Republic may continue to market animal feedingstuffs based on the yeast species *Candida utilis* cultivated on vegetable fibres until such time as a decision has been taken in accordance with Article 6 of the Directive or until two years after the date of accession, whichever is the earliest.
- Poland has a transition arrangement for the market placing of certain plant protection products until 31 December 2006.

### THE BUDGET

The Brussels Summit on 25 October approved a Franco-German compromise to freeze the agricultural budget (market support plus direct payments) between 2007 and 2013 at 2006 levels plus 1% indexation a year. The Germans wanted 0% and the French 2%: a compromise at 1% satisfied the German need to control the budget while reassuring the French that CAP support would continue.

The 1% indexation provides around €3,754 of 'new' money which just about covers the €3,549 draft budget requirement for paying direct payments to the ten new entrants. However it leaves a CAP funding gap from 2007 onwards, which has been addressed by new 'financial discipline' provisions in the June CAP reform agreement. This instrument is likely to reduce direct payments from 2007 onwards, assuming dairy and sugar reform require expenditure commitments in excess of the budgetary ceiling.

## **WHAT HAPPENS NOW?**

The European Commission will continue to ensure that the commitments made by new entrants are implemented prior to accession as agreed. To this end, the Commission will produce a comprehensive monitoring report six months before accession which will look at all the commitments made by each of the acceding countries.

The acceding countries, for their part, have to ensure that they reform their agricultural sectors in time to meet these commitments. The resignation of the Polish Agriculture Minister, Adam Tanski at the end of June, was cited as being caused by a lack of political support for his efforts in reforming Poland's large agricultural sector. In particular there are long delays in setting up the paying agencies (IACS) for the delivery of post accession direct payments and serious question marks over the management of state grain stores. However Tanski's replacement by Wojciech Olenjniczak signalled confidence from that Polish government that Poland will be able to meet the necessary deadlines in meeting EU standards in time for accession in May 2004.

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## Increasing the cost competitiveness of wheat production in Northern Europe

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### ABSTRACT

Changes in the Common Agricultural Policy will alter the way arable farmers in the European Union (EU) are financially supported as well as increase price competition. Competition will also be increased by the accession of new member states into the EU. This is resulting in North European farmers having to review their production methods for commodity crops. Where farmers aim to increase financial margins over and above decoupled payments, the unit cost of production of these crops will have to be reduced radically if product prices received over the last few years prevail. This may require both an increase in average yields/ha and a decrease in costs/ha. The main options are discussed using wheat as an example. It is concluded that input optimisation is unlikely to provide the changes in financial performance required but inputs will need to be managed in such a way as to enable the minimisation of labour and machinery costs. More radical solutions will often be needed. These could include pooling of labour and/or pooling or hiring of machinery and/or only cultivating the higher yielding parts of the farm in such a way as to facilitate the more efficient use of labour and machinery. Other uses, including agri-environmental schemes, should be sought for land that cannot produce crops competitively.

### INTRODUCTION

Arable farmers in the European Union (EU) have been more exposed to world prices over the last few years. This has been due to changes in the way they have been financially supported through the Common Agricultural Policy (CAP). A fundamental change from supporting prices to supporting area of production of commodity crops occurred in the mid-1990s. However, the high market product prices at that time masked the full impact of such changes until the late 1990s when world prices fell back to, perhaps, more realistic levels. Since then, product prices have driven rapid changes in arable production. There has been an increase in the size of units of production that has, in part, been responsible for a dilution of labour and machinery costs (Lang, 2003).

The increased exposure to world prices accelerated the trend towards rotations that may not be technically sustainable in the longer term. This has been particularly apparent on soils where only a small number of crop types can be grown competitively. A prime example is production on the clay soils of the UK. Spring sown crops are unreliable and there has been a concentration on growing autumn sown wheat and oilseed rape (*Brassica napus*). This has resulted in endemic herbicide resistance in black-grass (*Alopecurus myosuroides*), the major weed of such systems. Infestation levels and herbicide resistance have both been further enhanced by earlier drilling dates and by non-inversion tillage: these have been adopted on



many farms in order to reduce labour and machinery costs. The cost of chemical control of this weed is causing concern but alternative cropping systems to contain it by cultural means will, at current product prices, result in financially unsustainable returns.

There will be further changes in financial support for farmers in the EU from the 2005 harvest onwards in addition to more exposure to competition. The details of these changes are yet to be announced but farmers will receive an annual payment that is decoupled from production. This means, in principle, that arable farmers will have the choice to grow whatever area of crops (or set-aside or livestock) they choose without any impact on the level of financial support they receive. Theoretically, this will result in growing only the crops that make a financial margin in their own right. In addition, internal competition within the EU will increase with the accession of new member states. Ten eastern European countries will join on the first of May 2004 and Romania and Bulgaria on the first of January 2007. Some of these countries are major arable producers: for example Poland, Hungary and Romania jointly produce more than 50 million tonnes of cereals a year (FAO, 2003).

The gross margin budgets for the Morley farm, not taking into account financial support from the CAP, are an example of the issues that will face North European farmers when deciding their cropping options for harvest 2005 (Table 1). With current fixed costs/ha commonly exceeding £500/ha, cropping options that will provide an additional income over and above the decoupled payments seem to be limited to possibly the first wheat after a break, provided that yields can be increased and/or costs reduced. This is the basis of statements in the British farming press that many farmers may adopt a cropping sequence of a wheat crop followed by one year of set-aside. However, it is not a straightforward decision. The costs of set-aside management will have a major influence but the requirements are not available at the time of writing. In addition, it may not be possible, particularly on small and medium sized farms, to reduce fixed costs to the appropriate levels for such a cropping system.

Table 1. Gross margin budget for the Morley farm 2004, not including area payments

	Gross margin (£/ha)	Price (£/t)	Yield (t/ha)
First winter wheat	390	65	9.0
Second winter wheat	275	65	8.0
Winter malting barley	315	70	7.0
Spring malting barley	303	78	6.0
Winter oilseed rape	292	140	3.75
Winter beans ( <i>Vicia faba</i> )	207	75	4.25
Spring beans	187	85	4.0
Dried peas	188	80	4.5

Of course, much will also depend on produce prices, yields and also the margins that can be made by having all the land in set-aside or another venture, including agri-environmental schemes. As an example, where it is assumed that the costs of running the farm in set-aside

match the decoupled payments and the growing costs of wheat are around the current £720/ha (fixed costs of £520/ha and variable costs of £200/ha), yields will have to exceed 9.0 t/ha at £80/t or 12.0 t/ha at £60/t in order to make it worth growing wheat in comparison to set-aside. This compares to the current average yield in the UK of around 8.0 t/ha.

It may be that prices will rise as a result of decoupling. Logically, farmers may refuse to grow crops unless they are able to increase their net margins over and above those from decoupling. Price rises as a result of decoupling are not so likely for the commodity crops but may apply to crops grown for a local processor.

The major issues for a scenario where wheat is only grown opportunistically are the flexibility of hiring labour and machinery and knowing prices when the crop is sown. For instance, wheat was £55/t when the 2003 harvest crop was sown but much of it will be sold at £80/t; hence, forward contracts would be essential.

This paper attempts to establish the current competitiveness of UK and French wheat production when compared to the other major producers, including some of the countries likely to join the EU over the next few years. In addition, it considers some of the options that North European wheat producers will have to consider in order to increase their cost competitiveness in wheat production.

## **COST COMPETITIVENESS OF NORTH EUROPEAN WHEAT PRODUCTION**

Figure 1 provides information on the complete production costs (CPC) of wheat in some major exporting and accession countries. The data has been generated by ARVALIS – Institut du végétal (formerly ITCF) over the last seven years. The costs represent those of the best farmers in the countries rather than average performance.

The CPCs take into account all costs including the opportunity cost of capital involved in the business, excluding land that is assumed to be rented. To ensure comparability, it is also assumed that all machinery is new and that the labour costs include those provided by the family. It is accepted that this is not a perfect way of measuring costs of production but it does allow competitiveness to be compared. The two main criteria that have been shown to affect the CPCs are the exchange rate and the size of the holding. Australia has large farms that are able to exploit economies of scale.

The apparent competitiveness of Argentina is due to the low peso. Their farmers are still dealing in the US dollar and so it must be assumed that the data in Figure 1 is not representative of the real situation. East European countries have lower CPCs and the true figure may be even lower because they are generally relying on old equipment.

The costs of production are broadly similar in France and the US and Canada and they are also similar in France and the UK (Lang, 2001). However, much of the wheat grown in North America and other major production areas is more consistent in quality and has a higher protein content than that from North Europe. On the other hand, North European farmers have cheaper and easier access to export markets than many of their competitors in an expanded EU or in other continents.

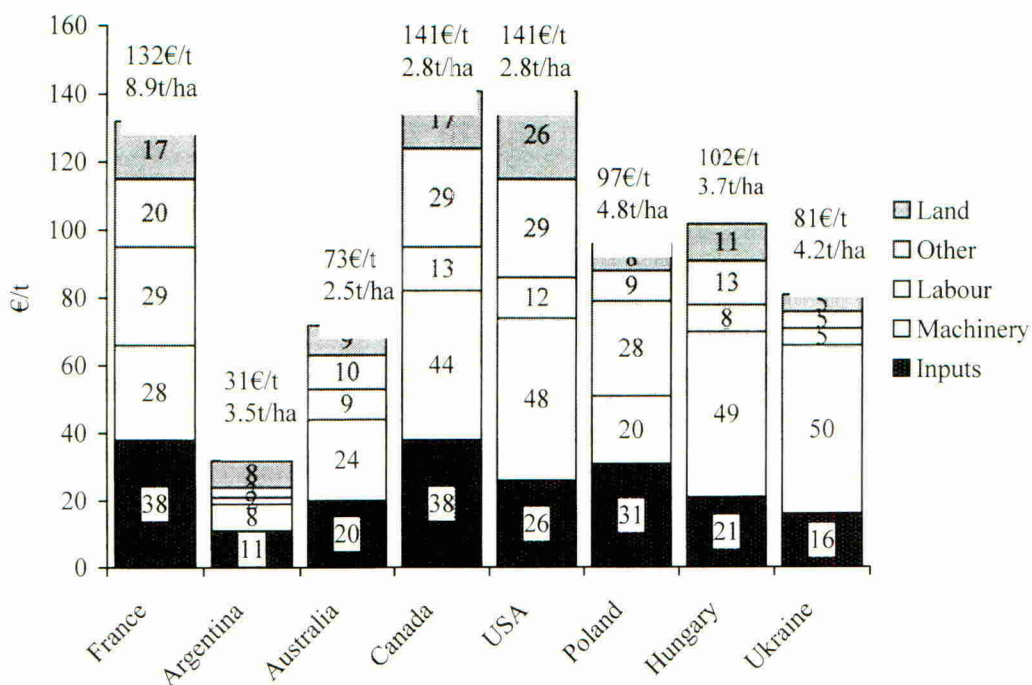


Figure 1. Complete ex-farm production costs (€/t) and yields (t/ha) of wheat (1 € = 3.31 Peso, 1.75 \$ Au, 1.59 \$ Ca, 1.13 \$ US, 4.38 zloty, 261 Ft, 6.05 UAH – exchange rates as on 7 August 2003)

## REDUCING THE COST OF PRODUCTION OF NORTH EUROPEAN WHEAT

Figure 1 demonstrates that the accession of new countries into the EU will only increase the price competition for North European producers, despite the latter's often cheaper and easier access to markets in other countries. The costs of transport will particularly limit competition in the domestic markets of North European farmers. However, France currently exports 50% of its wheat production to other countries and the UK 20 - 25% and it is export prices that provide the base of the domestic market. Hence, unless prices increase significantly above those received over the last few years, the competitiveness of North European farmers will have to increase in order to provide the opportunity to improve returns over and above those from decoupled payments.

There is a range of options that can be adopted by North European wheat farmers in order to reduce the cost of producing a tonne of wheat and increase financial margins over those from decoupled payments. The options include:

- Increase average yields/ha
- Decrease costs of production/ha
- Achieve financial support from agri-environmental schemes

### **Increase average yields/ha**

There is still a trend towards yield increases of most crops in North Europe with the exception of oilseed rape, where no increases in average yields have occurred over the last twenty years. The latter cannot be fully explained and also appears to be occurring in other parts of the world at a time when there is a steady increase in the yield of soya.

The yields of wheat in North Europe increased at a rapid rate between the mid-1970s and mid-1980s. This was due to the introduction and integration of new knowledge and technologies in plant breeding, plant nutrition and pesticides. Since then the rate of increase has slowed and is now largely explained by the increase of yield potential from new cultivars (Orson, 1996). Hence, a radical approach is required to provide a significant increase in average yields. This is provided by not cultivating the least productive areas of the farm. Records and/or yield maps can be used to select which fields or parts of fields are the most likely to more than break-even when compared to the decoupled payment. In many cases, this will mean not farming the headland areas of the crop that have the most soil compaction due to machinery turning and also suffer competition for water and sunlight from the field edge vegetation. For instance, British Sugar estimates that sugar beet yields/ha can be increased by 10% through not sowing headlands. Based on yields of field trials at Morley, this is also true for a range of other crops, including cereals and oilseed rape.

Those farms that cannot achieve sufficiently high yields on even a small proportion of their area will need to consider alternative uses for the land. The major alternative uses include environmental schemes provided by the taxpayers or environmental charities.

### **Decrease costs of production/ha**

#### Variable or input costs/ha

Trials indicate that there is little scope to reduce variable costs further unless the wheat price/falls well below the lowest received over the last few years. However, inputs still need to be optimised and applied using simple management guidelines so as to enable the minimisation of labour and machinery costs. This means that there is a need to plan ahead, starting with the selection of crops and cultivars and then by identifying those inputs that can be combined with others, those inputs that have critical timings and those inputs whose timings are more flexible.

#### Fixed costs/ha

The potential for a significant reduction in total costs is with the fixed costs. Figure 1 shows that labour and machinery costs alone account for over half the cost of producing a tonne of wheat.

Low prices in recent years have resulted in the increased adoption of non-inversion tillage. Decoupling payments do not increase the cropping options over and above area payments and so the challenge on many soil types is how to adopt such tillage methods without incurring the penalty of increased numbers of, and herbicide resistance in, grass weeds. A cropping sequence of a wheat crop followed by one year in set-aside may enable such an approach provided that seed return from the grass weeds is prevented in the set-aside. However, such an approach may not be an appropriate option on many soils because of the difficulty of

producing a suitable seedbed for wheat with non-inversion tillage after natural regeneration set-aside. In this case, a cover crop, such as mustard or phacelia, may be preferred to natural regeneration but the additional costs have to be set against the possible cost advantage of non-inversion tillage. However, it may be possible that the cover crop will attract some income from an agri-environmental scheme.

When compared to non-inversion tillage, ploughing is less likely to require a cover crop in such a cropping sequence, will reduce the cost of grass weed control and also may reduce the rate of development of herbicide resistance. In addition, it should be noted that systems of establishing wheat using the plough now exist that often cost little more per hectare than non-inversion tillage. However, there remains the advantage that non-inversion tillage reduces time spent establishing an area of wheat. This may be less beneficial in systems that have a high proportion of set-aside because under the current management rules, ploughing can commence after mid-July.

Particularly on the smaller farms, there is potential for pooling both labour and machinery to reduce their costs/ha. There are different degrees of pooling: for example, graduating from sharing the sugar beet harvester with a neighbour to sharing all equipment to creating an 'employer group' and finally, to sharing all the equipment, the land and the labour force. This level of co-operation is called 'assolement en commun' in France. It is not in the French rural traditions to pool equipment. However, this is becoming a more popular option in the regions where crop diversification is not possible and only commodity crops are grown, resulting in revenue being mainly dependent on the CAP. It is hard to say how common this co-operation system is because, at the moment, it has no legal status in French law.

With the 'assolement en commun', there are more organisational constraints but advantages in savings in time and fixed costs. For example, 12 years ago seven farmers (five farms) in North France decided to start working together. At that time, they had 16 tractors for their 470 ha: today, they have only three tractors (0.8 horsepower/ha). In a separate study by ARVALIS of seven groups of farms, 'assolement en commun' resulted in a decrease of machinery costs of 80 €/ha and an increase of net margins of 75 €/ha. A further development could be to use hired equipment to cultivate land only when the contract wheat price is sufficiently high to justify production. The annual variation in the demand for hired equipment may mean that this is not a viable option.

Small fields, unevenly shaped fields and cropped headlands can result in higher labour and machinery costs/ha. Hence, 'squaring off' the highest yielding parts of the body of the larger fields should not only increase average yields/ha but may also improve the efficiency of labour and machinery as well as increase average yields. Having areas the multiple in width to the crop sprayer will prevent unnecessary machinery input (Figure 2). However, much depends on the length of time it takes to move from field to field. If it takes a long time, then it may be more efficient to cultivate a higher proportion of the cropped fields and perhaps be more discriminating on which fields are to be cultivated. However, if moving from field to field is efficient, such as in block cropping (growing the same crop and possibly the same cultivars in a block of adjoining fields), then it may pay to concentrate the cropping in each field on the highest yielding sections. This approach will reduce the need for labour and machinery and so provide an opportunity for their pooling on small and medium sized farms.

It may not be worth cropping small fields but again, much will depend on the time taken to move between them. A range in size of cropped areas is required to support the biodiversity of farmland fauna and this may influence payments from agri-environmental schemes.

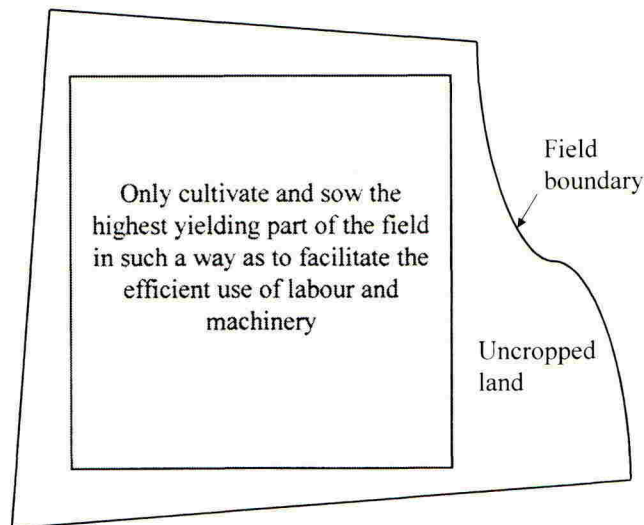


Figure 2. An example of how individual fields could be cultivated in order to increase average yields and facilitate efficient use of labour and machinery

### Agri-environmental schemes

There are a range of agri-environmental schemes being discussed that will potentially produce additional income from the uncropped areas in exchange for the creation or maintenance of habitats. Biodiversity needs diversity in landscape structure and so there may be some need to create different habitats rather than to maintain all the uncropped land in natural regeneration set-aside. Hence, when 'squaring off' fields is essential for the efficient use of labour and machinery, the positive management of an increased area of uncropped land may not only offset any environmental disadvantages of block cropping but may also enable the targeted increase of specific species according to local biodiversity plans.

### CONCLUSIONS

Decoupling brings new challenges and opportunities. Details of decoupling and its likely impact on market prices are not yet known. However, it seems that higher average yields/ha and/or lower fixed cost/ha are required both to provide an additional income over the decoupled payments and also to compete for markets if prices received over the last few years prevail.

The major costs of production are labour and machinery and there are opportunities to reduce them with each requiring careful analysis. Non-inversion tillage may produce some savings

but problems with grass weeds have been experienced in rotations dominated by winter wheat. This has been clearly demonstrated by ARVALIS on their long term trial site at Boigneville.

Pooled machinery and labour have been shown to improve the competitiveness of the French wheat grower. The same opportunities are present in the UK but the more common solution is for farmers to retire and to let their land or have it contract farmed by others. A more extreme solution is not to own machinery or to have hired labour and opportunistically crop the land using hired equipment when contract prices of crops are sufficient to provide an increased margin to the farm. The adoption of this approach may be inhibited by the cost of hiring equipment because demand could be very low in some years due to unattractive crop prices.

Another radical approach is to crop only the most productive parts of the farm in order both to increase average yield and to facilitate efficient labour and machinery use. This may also involve the pooling of labour and machinery. This approach has not been tested in practice and hence its potential advantages have not been confirmed. It is more likely to be adopted where there are unevenly shaped fields and where there is efficient movement of machinery between fields. Any negative environmental aspects of block cropping should be overcome by positive management of an increased area of uncropped land, which may provide the opportunity for payments from agri-environmental schemes. However, farmers are not enthusiastic to enter long term agreements for agri-environmental schemes when produce prices are unpredictable.

These conclusions assume that farmers will react to the challenges in a logical way, i.e. they will only grow crops that provide an increase in the net margin of the farm over and above that from decoupled payments. Most have not taken a similar opportunity under the current support arrangements and hence their reaction to decoupling may not be so radical as this paper suggests. This is in part because they may find it impossible to reduce fixed costs to the extent required for a high proportion of set-aside and that they enjoy farming and would like to maintain their land in production because decoupled payments are only guaranteed until 2013. However, before that date, farmers should be taking the opportunity to prepare their business, not just their wheat production, for a possibly harsher economic environment.

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## **A UK farmer's experience of farming in Hungary**

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### **ABSTRACT**

With the demise of the former Soviet Union, many western farmers looked at the opportunities that the farms in these countries offered and this paper relates the experiences of one group of farmers who actually took on some land in Hungary. The farms were in poor condition and the workforce was poorly motivated. Continental weather patterns also brought extremes of climate but this paper indicates what can be achieved and what still remains to be done.

### **INTRODUCTION**

From the 1989 collapse of the Berlin wall many farmers, particularly the arable farmers of eastern UK, started to visit the renowned farmlands of the former Soviet Bloc countries of Eastern Europe. It was obvious that they had huge potential and that the opportunity to get into farming in this region was available at a much-reduced price. The stumbling block for most Western visitors was the risk associated with such a venture and management, management, management.

In our family business we employed a highly capable young man to run the main farm and this man, Andrew Hunter won a Nuffield scholarship to examine agricultural practices around the globe. This experience, coupled with his previous trips into Eastern Europe, lead to his momentous decision to solve our management problem of farming in Eastern Europe. He would make the new farm his home.

From the moment Andrew took that decision, the rhetoric of farming in the East was to become a reality. We recognised that there remained considerable risk and to mitigate that risk and increase the scope of our ambition we found fellow investors and a consortium of 11, "The Magyar Farming Company" (MFC) was born in 1997.

### **WHY HUNGARY**

In the lead in years prior to creating MFC many former Soviet influenced countries were visited by many of the investors who were to create MFC. Hungary kept coming to the fore in these early forays into the East. Some of this was pure chance and coincidence but some was based on intrinsic merits we found in Hungary. The overall combination of many factors lead us in the direction of Hungary; the will of the people, the quality of the soil, the range of crops, and ultimately the proximity to the western world. This last factor is particularly important not just in a marketing sense but also in as much as it allows all the shareholders and especially Andrew relative ease in coming and going from Eastern Europe.



## **WHAT DID WE FIND ON ARRIVAL**

We could have ended up with a farm in any area of Hungary and we had no real pre-conditions as to the cropping and enterprises that we were seeking. In any event in January 1998 we purchased a farm near Gyor a town nearer to Vienna than Budapest. The farm was the remnant of a State farm, a company comprising some 3,500 acres in a mixture of land tenures from outright ownership to short term private lets. As foreigners are not allowed to own land in Hungary (indeed an Hungarian national may only own 300 hectares), the only way in which we could own land was to purchase an Hungarian company that did own land. (There was a short period after the demise of communism when companies were allowed to own agricultural land.)

The centrepiece, in agricultural terms, was a 1200 cow dairy unit built in the 1970s. This unit had a very run down parlour but the structures themselves were in good repair having been over-constructed in the first instance.

The dairy unit had in it 300 cows, leucosis positive, producing about 10 litres/day of high cell count milk well on the way to being yoghurt. The silage clamps had unsheeted poor quality forage. This feed was going to struggle to feed the cows through to August.

The arable crops were growing on compacted soils where they were planted. Little if any of the cultivation for the spring crops had been started. In the purchase we acquired 4 Forschritt combines and about 20 MTZ tractors. On our first morning of farming only two combines remained (these were the two with no wheels) and only about 6 MTZ tractors remained.

The company had had an asking price that we had ignored for we had imagined that there would be many debts that even the PriceWaterhouseCoopers due diligence procedure (they advised us against purchase) would not have uncovered. Sure enough our estimate of hidden debts emerged at much the figure we had anticipated! The staff to run this business numbered some 140. About 30 of these worked in the office. By and large they were demoralised before we arrived and I think it would be fair to say our arrival further depressed the majority.

An anecdote of an incident on our first day encapsulates much of the flavour of the situation. Along with the old MTZ tractors we had purchased an Articulated Raba Steiger. On the first morning after the take over and against the given orders of Andrew, a drunken employee took this giant tractor out of the yard and onto the road. Seconds later he collided with a busload of Yugoslavian schoolchildren on an exchange visit to the Gyor area. The bus overturned but happily there were no serious injuries. When we checked on our insurance status we discovered that the previous managers and directors had altered the insurance premiums from being on an annual basis to a quarterly basis. The business was three payments in arrears.

## **OUR INHERITED WORKFORCE**

It is difficult to describe the effect of communism on people but I think it is fair to say that the workforce we inherited was typical of any rural workforce a decade on from the initial

demise of a communist system. I have broken the workforce we started with into three categories.

1.The worker...This person would turn up on time but would be unlikely to be sober. He would do that which he was told to do and no more. He would wait the time to go home and expend the minimum amount of energy during his working day. Petty pilfering would be useful to him and his family so small amounts of feed seed fertiliser or produce would be routinely removed. With his unspent energy and his sober early evening he would work hard on his family home and garden. He would not be interested in overtime but then again he had probably not been paid for any overtime that he had done recently.

2.The foreman...Remember Peter Sellars in "I'm all right Jack" and you have a good vision of this raft of people. They have got up the first rung of the ladder and no longer do they have to work. They give orders, drive vans and have impeccable overalls.

3.The manager...Perhaps I can surprise you here for these people actually worked quite hard and quite long hours. However the work they conducted was not on behalf of the company. They were working out all the scams that they could muster. In the years between communism and our purchase of the business the four senior managers had accumulated 98% of what remained of the business and indeed the cream of the business was already plundered. All 140 workforce had started with an almost equal stake!

## **WHAT HAVE WE LEARNT AND ACHIEVED SO FAR?**

### **Climate**

We have really had to adjust our thinking from UK conditions. The continental climate has proved much more extreme than we could possibly have imagined. We have had unirrigated yields of grains between 13 tonnes per hectare and zero on a field by field basis and cereal average yields season by season have varied from 2.5 to 6.5 tonnes per hectare.

The Danube has been within inches of flooding large areas of the farm in the 2002 summer as it carried the rainfall from lands far away from our own farm. This summer has seen the river so low that large barge traffic cannot access Hungary and as I write this Soya meal for the cattle is virtually unobtainable.

We record temperature ranges of +40 to -20 in every year. Getting systems to suit this range of extreme is challenging. However this climate also gives us a large range of crops and our combine starts work on smallgrains in June and finishes in maize in December. It easily handles double the tonnage of a UK machine in a season. There are many examples of how well we can utilise machinery in Hungary.

### **People**

We have trebled the size of the business since we have been in Hungary both in area and cow number terms. We run our new business with a staff of less than 50. It has been incredibly rewarding to change the workplace culture and the staff most exposed to Andrew (The arable team and the office team) have totally transformed their output and the quality of their lives. Many of the least successful under the old regime have flourished in

a regime working to our culture where initiative, honesty and endeavour have been rewarded. Despite early and substantial improvements in the Dairy we have only recently (and with our fourth attempt at Dairy management) started to see that in all our departments have we got staff with the potential to respond to Western style management.

Sadly we still find that young Hungarian managers do not realise that agricultural management still involves dirty hands. It is undoubtedly a failure of our progress so far, that Hungarian junior and middle management has as yet eluded us.

### **The overall business**

The business has gone very well for us but ironically it is more about how astute Andrew has been with his property management than his farming. It has also been because he has been recognised for his honesty and acumen and people have sought out our farming. Grains have been non-profitable due to both weather and price but we have learnt how to minimise the costs of production and have the scale to achieve low costs.

The dairy should have been profitable but despite really major improvements we only now have the management resource to make this prosper. Even without really effective management we have taken the herd up to 800 cows in milk, nearly trebled the milk yield, slashed the cell count to produce "Extra quality" milk and we have eradicated the leucosis. Furthermore general cow health and in particular cow feet are unrecognisable from the herd that we purchased.

From nothing we have established a potato business that has good potential for the future for we can see that we are technically better growers than the majority. We really await the market to resemble a Western system without "middlemen" before we can really grow this side of the business. This business has taught us much about the culture of marketing in Hungary and these lessons, although at times learnt the hard way, are invaluable pieces of knowledge for the future.

### **THE FUTURE WITHIN THE EU**

Ever since the demise of Communism the national driver of Hungarian politics has been EU membership. Not at any price do they wish to return to a Russian influenced situation. The Russian language is understood by everyone over 40 years of age and spoken by none. English is now the first foreign language learnt at school.

May 1<sup>st</sup> 2004 sees the realisation of a national dream that is virtually unanimously popular. Certainly no political party of any consequence clamours for anything other than EU membership.

In spite of the EU dream Hungary remains fiercely nationalistic having lost so much of its previous territory to surrounding countries. In an agricultural context Hungary exercises this nationalism to great effect when convergence over time rather than immediate matching of EU support systems is all that is offered.

However that dream is flawed for the average Hungarian believes that there will be a rapid (almost overnight) change to a GDP for the country and wage for the individual that will

mimic that which he sees in Austria or that which he sees on his TV. It is almost inevitable that there will be disappointment in the reality of EU membership.

After years of a system of mistrusted government, the average citizen is crying out for honesty from the new regime. Therefore the dishonesty that naively even now exists about EU membership is not an encouraging political start.

Agriculture well defines the national problems of wishful thinking and bold rhetoric not really fitting the reality of EU membership. Confusion and misinformation is rife along with plain muddled thinking.

For example take milk quotas. Hungary's national quota is set at 1.95 billion litres after EU membership. Current production is just 1.6 billion litres. In EU membership 200 million litres of Hungarian milk production is so substandard it will have to go. This season sees the Hungarian government penalising milk production if over 95% of quota were attained in an individual business. How can Hungary possibly utilise or even begin to match her set quota level from the position it is currently in, let alone the direction government is pushing it?

In cropping terms, confusion and misinformation rule. An IACS system is still anticipated although a de-coupled system is likely to soon supersede it. It is still impossible to get a view from the government as to whether there will be a need for Set Aside for the 2004 harvest. A leading firm of agricultural merchants is telling all its customers that any production above the "Reference" yields will not be saleable. There is no government rectification of this sort of confusion.

Hungary badly needs quality independent information of all types.

Better technical and not manufacturer information of input usage.

Better market information not reliant upon the few big players who dominate and can manipulate the market.

Hungary needs a strategic plan for all aspects of climate management most especially in relation to drought and flooding.

Agriculture is already so undercapitalised that the merchants can take advantage of the majority of Hungary's farmers.

If Hungarian farms are to meet EU environmental standards then funds will have to found to achieve these standards.

## **CONCLUSION**

Much of what I have said may sound like a catastrophe, a no-win situation but if that is what I have conveyed then I will have failed in my objective. Hungary has been for us and will be for some time yet a land of great agricultural and other business opportunities. Most exciting of all our achievements has been the transformation of our staff when they have been given the opportunity to perform.

I am aware that this paper does not conform to the rigours of a paper of the sort normally presented at a scientific conference but it is an honest if somewhat personal attempt to paint an accurate picture of Hungarian agriculture.

#### **ACKNOWLEDGEMENT**

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## **The economic impact of European expansion**

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### **ABSTRACT**

Ten new countries are about to join the EU. These countries will bring an extra 130 million consumers to the market but also an extra 38.5 million hectares of farmland. These new members will receive transitional support packages when they join in May 2004, leading to complete equality with existing members by 2013. The large agricultural areas of these new members will create competition for existing export markets and their cost base is lower but their continental climate is more prone to weather extremes, making their yields less certain. All these changes coupled with the WTO negotiations will put more pressure on the EU intervention scheme and arable restructuring will become even more necessary in the UK.

### **INTRODUCTION**

Next May sees the arrival of ten new members of the EU. The agricultural profile of these countries is very different from that of the existing EU members and will create problems and opportunities in the way that EU Agriculture trades and develops. This paper sets out to describe what the new members get from joining, how it is likely to affect the market and trade and how the UK is likely to fare under these changes.

### **WHO ARE THE NEW MEMBERS?**

The new member states are very largely located to the east of the existing EU. Estonia, Latvia and Lithuania were countries absorbed into the Soviet Union, Poland and Hungary were independent states and the Czech Republic and Slovakia were part of Czechoslovakia, all within the Soviet Bloc. Slovenia was part of Yugoslavia within the same structure. All of these countries were 'released' from the Soviet era ten years ago, developed their own nationhood and are now being absorbed into the enlarged EU. Romania and Bulgaria were also expected to join but their entry has been delayed.

Each of the new entrants has been endorsing entry via referenda of their people (Table 1) with the last decisions taken by Estonia and Latvia in September. Thus, 2002/03 was the last cropping year as an EU of 15 member states.

Table 1. Timetable for EU enlargement

Date	Event
March 8	Malta referendum
March 23	Slovenia referendum
April 12	Hungary referendum
April 16	Accession treaty signature, Athens
May 10	Lithuania referendum
May 16	Slovakia referendum
June 8	Poland referendum
June 15	Czech Republic referendum
Sept 14	Estonia referendum
Sept 20	Latvia referendum

Broadly described as central eastern European countries (CEEC), they all have adjoining borders and have borders onto the current EU via Germany, Austria and Italy. A large part of their trade is likely to be with these EU members. The precise impact on trade flows is difficult to predict but it is likely that trade into these nearest countries will favour supplies from the new members since their labour and land costs are currently significantly lower than in the more developed economies of the existing EU. In general, agriculture is a much bigger part of their economies than the current EU. GDP share is between 2.9% for Poland and Slovenia (EU, 2000) and 6.9% in Lithuania which means that farm issues are often more important to government than is the case in the UK (Table 2). A large part of the population still works in agriculture – 6.7% in Slovakia up to 19.6% in Lithuania, whereas in the EU the average is 4.3%. (In the UK only 1% of employment is in agriculture.)

Table 2. Agricultural Indices for new EU members

Country	Agricultural area (Million ha)	Agriculture as % GDP	Agric. Employment	
			millions	% of total
Cyprus	0.13	3.5	0.01	9.2
Czech Rep	4.28	3.4	0.19	7.4
Estonia	1.00	4.7	0.03	7.4
Hungary	5.85	3.9	0.23	4.8
Latvia	2.49	4.0	0.12	13.5
Lithuania	3.49	6.9	0.26	19.6
Malta	0.01	2.0	0.00	1.9
Poland	18.22	2.9	2.70	18.8
Slovakia	2.44	4.1	0.12	6.7
Slovenia	0.49	2.9	0.08	9.9
Total	38.42		3.75	
EU-15	131.62	2.0	6.77	4.3

Cereal yields in these countries have always been lower than those achieved in the UK but the disarray following the collapse of the Soviet Union caused deterioration in this position (Figure 1). The much higher yields achieved in the UK is the main reason that we can expect to be able to maintain a degree of competition against these new arable-based countries. Although in general these countries have lower costs as shown in Table 3 (HGCA, 2003a) the UK is well placed against those countries that have traditionally been regarded as grain producers – USA, Australia etc. This implies that as markets evolve in Eastern Europe, their costs will also tend to rise. This gives a real expectation that the UK can compete, medium term.

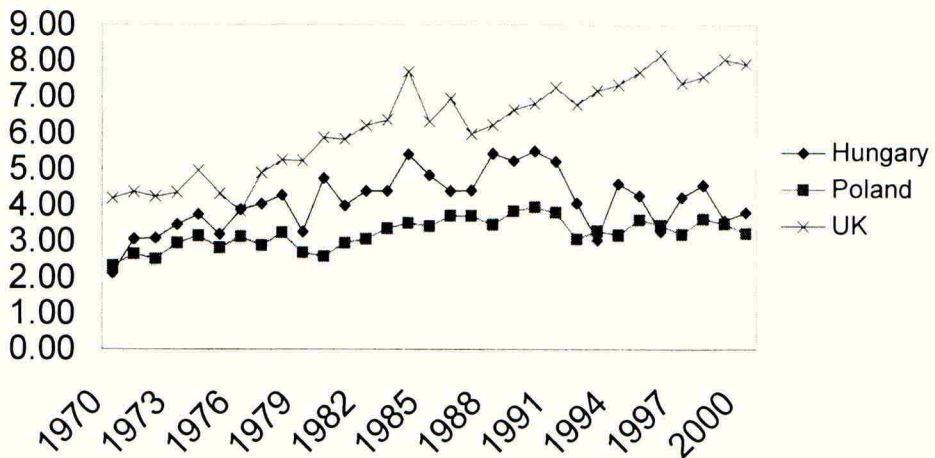


Figure 1. Comparative trends in wheat yields

Table 3. Wheat production costs for 2002/03 (US Dollars per tonne)

	France	UK	Canada	USA	Australia	Ukraine	Kazakhstan
Seed	8.1	7.6	8.0	6.3	17.3	6.3	15.3
Fertiliser	18.7	15.8	28.5	18.2	40.1	14.3	0.5
Protection	22.3	23.1	22.9	7.0	25.0	7.1	2.0
Contracting	16.0	3.3	11.4	6.3	0.0	1.2	0.0
Total VC	65.0	49.8	70.8	37.8	82.4	28.9	17.9
Labour	19.1	19.5	12.0	17.4	21.9	0.9	12.2
Machinery	29.8	41.4	31.0	66.2	34.4	14.3	23.5
Other	26.7	13.3	16.3	11.3	24.5	0.0	0.0
Total Costs	140.6	123.9	130.2	132.7	163.3	44.1	53.6



The fact that continental weather patterns in much of central Europe can cause large yield variations also encourages this view. Even a well-financed, well-managed CEEC crop can be severely damaged by weather much more frequently than in the existing EU countries. This expectation of feast or famine will affect the way that the crop is grown and will create a permanent source of uncertainty in the market.

### HOW DO THE NEW EU MEMBERS WORK?

The relatively small populations of people and livestock limit domestic demand for cereals in the CEEC. Per capita consumption of pig and poultry meat is seen to be rising at a faster trend than in the existing EU. This is from a very low base during the Soviet and post-Soviet eras but the real potential of these countries to consume more cereals than they produce is very limited.

The official EU analysis of the cereal balance in these countries (EU, 2002) indicates the reverse (Figure 2). From the base period of 1992/02 to the projection periods of 2007/13, the EU sees a balanced/deficit situation developing into a substantial exportable surplus of over 20M tonnes of cereals.

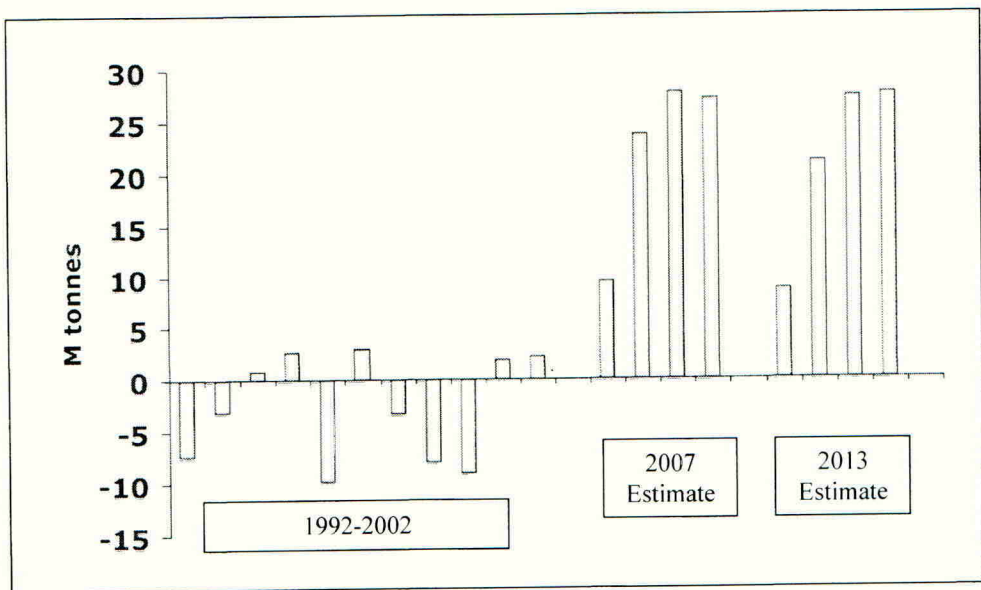


Figure 2. Current and predicted cereal surpluses in the accession 10

Table 4. Selected cereal balances for Hungary, Poland and the UK ('000s tonnes)

	Hungary Total	Poland Total	UK Total
Opening stocks	1,117	1,825	2,533
Production	12,600	11,600	22,625
Imports	130	1,675	2,729
Supply	13,847	15,100	27,887
Exports	3,525	50	5,950
Domestic use	8,925	13,650	19,479
Closing stocks	1,397	1,400	2,485
Self-sufficiency	141	85	116
Population (M)	10.2	38.7	58.8

The two largest areas entering the EU, Hungary and Poland, are already occasional exporters. The current balance sheet (Table 4) illustrates the potential for export given the large area and small population relative to the UK or even France and Germany. Domestic consumption is only 50 – 67% of that which we see in the UK but the arable potential is huge.

#### WHAT DEAL WILL THE NEW MEMBERS GET?

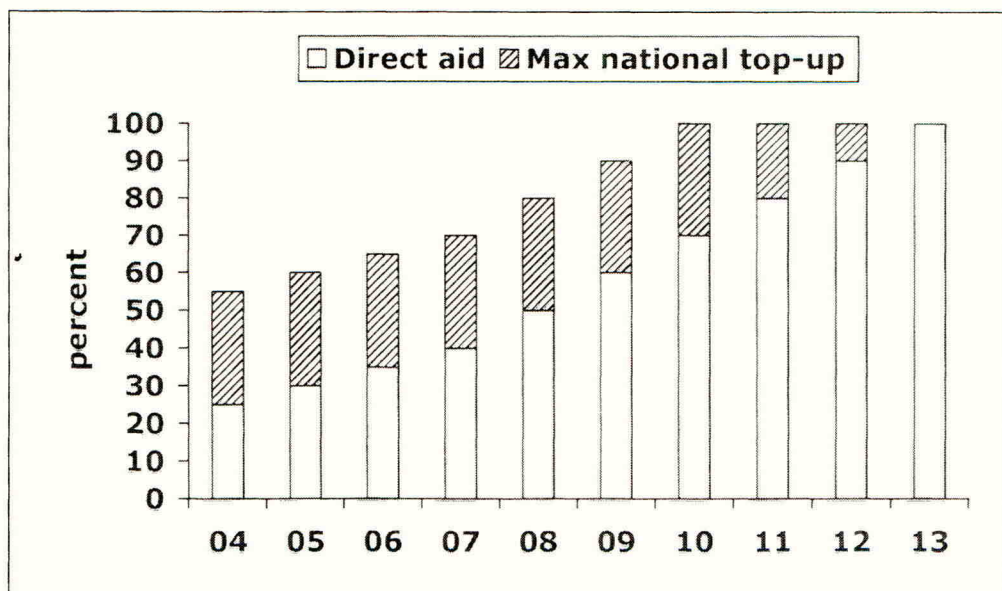


Figure 4. Phasing in of payments to the new members

Over the next ten years there will be a convergence of the aid payments received by the old and new member states (Figure 4). This does not mean that the new will get what the old members get today since this will also be subject to change. The new members have been given a clear understanding that they will receive equal treatment as well as special support to help them adapt to the new rural development and environmental policies of the EU.

However, as modulation sets in, we can expect to see the character of the new Single Farm Payment (SFP) changing and the nature of payments being more variable across the EU as different member states pursue different agendas. Crop production will increasingly be driven by market economics but farm profitability will depend on this and the SFP for the diverse environmental and rural policies pursued by the EU and the individual member states, both old and new.

### HOW WILL THIS AFFECT TRADE AND THE MARKET?

The EU has been fighting to keep within its WTO constraints on subsidised exports (Figure 3). The emergence of CEEC grain surpluses is important because it is driving policy attitudes to future WTO negotiations and will impact on intervention and other market support mechanisms. Under WTO rules, these countries were essentially not exporters and therefore cannot claim any 'share' of world trade for the EU. If, as a result of EU membership, their cereal production expands faster than their consumption, then the EU must cope with this within the existing WTO export constraints (HGCA, 2003b).

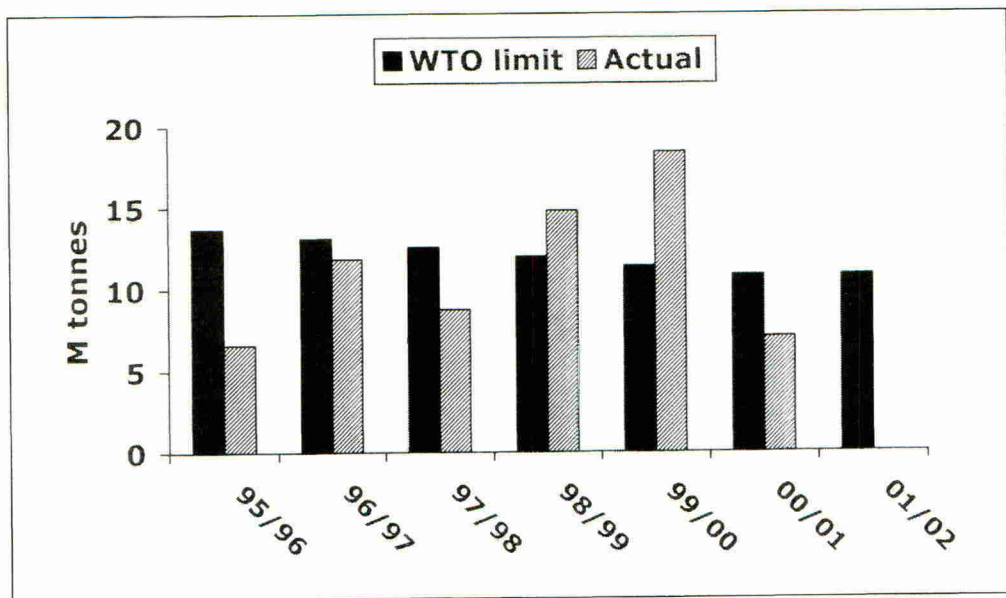


Figure 3. WTO export constraints and recent performance of the EU

This suggests that intervention is a spent force and that the EU will steadily reduce the support that the intervention system gives to farming. The EU rejects the idea of accumulating stocks far from consumption points and will leave commercial returns increasingly to the market with the Single Farm Payment being a new way to influence and finance society's needs from land-based activities. The arrival of the new member states is a key driver for this development.

## HOW WILL THE UK COPE WITH THESE CHANGES?

The profitability of UK arable farming is very sensitive to price. Survey data from Cambridge University Press (Lang, 2002) reports that 50% of arable farms show a margin over costs at STG 60 per tonne, around 75% are profitable at STG 70 per tonne and 90% at STG 80 per tonne. This is important when assessing the impact of recent policy changes and the competition from new member states. The recent Defra-sponsored study at Cambridge by Alan Renwick (Renwick, 2003) suggests that the industry can respond to these pressures by continuing to restructure. On this assessment UK arable farms are expected to be able to return profits in 90-100% of cases at prices above STG 70.

Table 5. Proportion of arable farms likely to be profitable at a range of wheat prices.

Situation	Average Cost/tonne £	Proportion of production profitable with no AAP and wheat prices at:		
		£60	£70	£80
Current structure	79	16	52	76
Current structure Excluding rent	71	44	75	90
Restructuring Low cost/ha	61	75	89	96
Restructuring Low cost/tonne	50	100	100	100

## CONCLUSIONS

In the new member states, agriculture is more important than it currently is in the UK. Production will be encouraged by a increasing availability of finance for production once the new member states are inside the EU. Considering their low population and their large arable areas, it is clear that this will result in the production of greater quantities of crops. This will result in greater competition for the export markets that UK and France currently supply. However, it is important to remember that these new member states have more volatile yields than the existing EU because of the vagaries of climate and this means that they will not be offering large supplies every year. In addition, the low land and labour costs of the new Member States will result in some transfer of higher value processing industries like poultry and finished meal preparation.

The combination of EU expansion and the impending WTO negotiations will create pressure to dismantle the EU intervention system, leaving commercial returns more and more to the market with a more volatile market-driven cropping mix across the EU. All of this will place increased pressure on the UK to continue with arable restructuring. The UK arable sector

can compete with the new suppliers providing that it continues to restructure its farming systems and that relatively high yields are maintained.

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