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# 2005 PIG COST OF PRODUCTION IN SELECTED EU COUNTRIES

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Edition

**BPEX**  
British Pig Executive

## Acknowledgements

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## INTRODUCTION

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This is the fifth in a series of annual reports that examines the relative costs of pig meat production in selected EU countries. Costs of production are examined up to farmgate level, although it should be borne in mind that this is just one part of the supply chain. Overall competitiveness is a product of all the elements in the supply chain (e.g. abattoirs, processing and retail distribution).

While British pig meat production has made some useful performance gains in the latest year, we are still lagging behind our European competitors in many key areas. However, it is only by having a clear understanding of our cost structure that we can move ahead. Understanding our relative technical and financial performance is necessary in order to pinpoint the areas of weakness that require investment as well as the strengths and opportunities that can be further exploited.

The need to know what our relative costs are can only become more important in the future due to increasing international trade and to developments which can potentially add to these costs.

In terms of international trade, the WTO negotiations are on hold at the time of writing. But they will eventually resume. Although we do not yet know exactly how this will affect the pig meat sector, any new agreement will almost certainly involve reductions in EU import levies. A significant reduction in import tariffs could mean that imports could begin to come into the EU at competitive prices.

There are two new developments that are likely to add to pig meat production costs in the near future. Firstly, in 2007 larger farms will have to conform to the Integrated Pollution and Prevention Control (IPPC) requirements. Secondly, future feed prices could increase as a result of the development of biofuel plants. The report contains a chapter on Managing Feed Costs.

## KEY POINTS

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The report examines the relative competitiveness of British pig production compared with that of other EU countries for 2005. It updates previous reports that examined costs between 2000 and 2004.

Some of the key findings from the report are:

- The cost of pig meat production in Great Britain production declined by 7p/kg in 2005, to 104.4p/kg, due to a combination of lower feed prices and improved performance.
- However, these same factors also led to lower costs in the other participating countries, and consequently Britain continued to have the highest average costs (excluding Italian Parma Ham production). The average cost of production in all the participating EU countries was 94.5p in 2004. This was down five per cent compared with 2004.
- Total costs include a significant amount for depreciation. If this item is excluded, the cash costs of production in 2005 were 87.4.3p. Cash costs of production were still higher than in any other country in the survey, except Italy.
- There was little impact on relative costs from exchange rate movements in 2004 as a whole. A one per cent increase in the value of the Euro meant that while prices declined by five per cent in Sterling terms they were down by six per cent in Euro terms.
- The number of pigs weaned per sow in Great Britain continued to improve in 2005, due to improvements in pigs born alive/litter and in litters/sow. However in both these key areas Britain remains below the EU average.
- Post-weaning mortality remains relatively high in Britain, but it fell significantly between 2004 and 2005 as a result of the declining incidence of PMWS. The fall was particularly marked in rearing herds
- More recent quarterly data from Agrosoft indicate a continued improvement in post-weaning mortality into 2006, with a decline of 0.9 percentage points between the second quarter of 2005 and the second quarter of 2006. This will have led to a further 0.3p decline in the costs of production.
- The average daily liveweight gain in Great Britain finishing herds has been relatively static, with little change having occurred since 2002. However rearing herd DLG showed a substantial improvement in 2005.
- The amount of carcass meat produced per sow in Great Britain was 1.44 tonnes in 2005, significantly below the overall average (excluding Italy) of 1.84 tonnes. Nevertheless, the British figures have been on an upward trend, increasing from 1.35 tonnes in 2002 to 1.44 tonnes in 2005. This was due to higher carcass weights and increases in pigs finished per sow.

## METHODOLOGY

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This report is the fifth in a series that examines the relative costs of production in selected EU countries. In addition to examining the differences that existed in physical and financial performance measures in 2004, some time series analyses are now possible.

This was a joint project involving the following organisations and countries, who are known collectively as InterPIG:

- Great Britain - British Pig Executive
- Austria - VLV Upper Austria
- Belgium - Boerenbond Belgie
- Denmark - Danske Slagterier
- France - Institute Technique du Porc
- Germany - Institut für Betriebswirtschaft (FAL), and Interessengemeinschaft der Schweinehalter (ISN)
- Ireland - Teagasc Rural Economy Research, Dublin
- Italy - Centro Ricerche Produzioni Animali
- Netherlands - Agricultural Economics Research Institute (LEI), and Productschappen Vee, Vlees en Eieren (PVE)
- Sweden - LRF Konsult

The cost and performance data relates to average performance data from the national recording systems operating in the participating countries. There will inevitably be some national differences in definition, but where this has occurred the data has been adjusted in the most appropriate way. There still remain discrepancies, but the results are believed to provide a clear indication of the relative average costs of production within each country and to provide an accurate comparison within 1-2pkg deadweight.

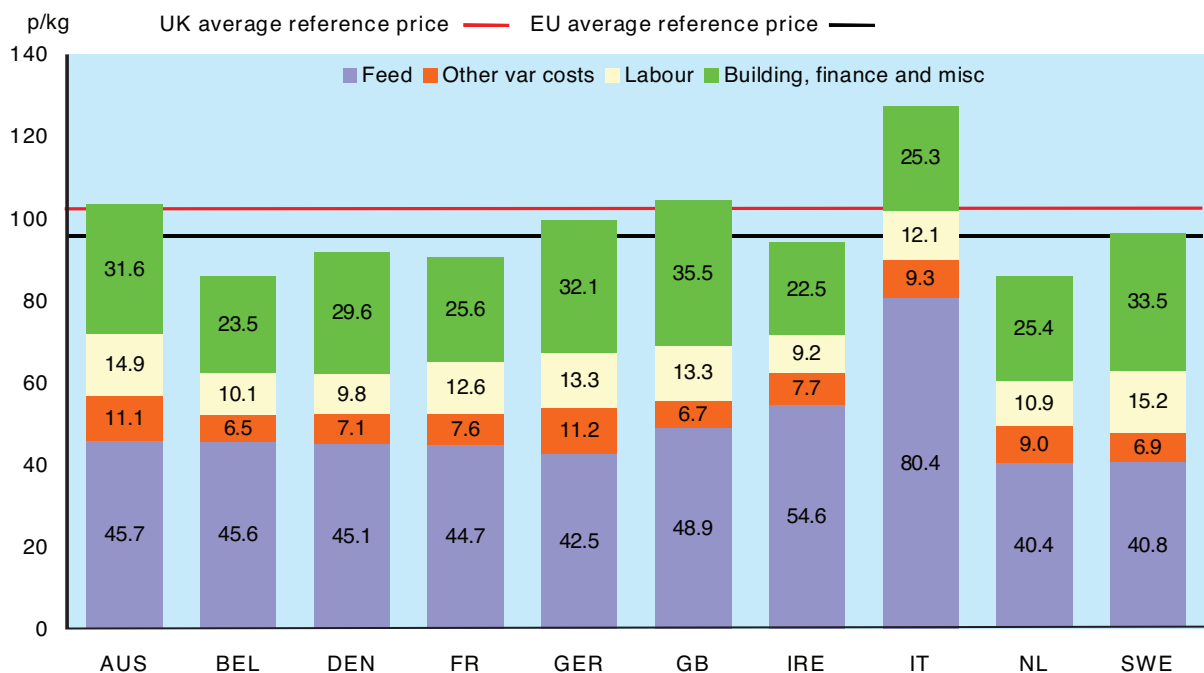
Production systems in most of the participating EU countries are similar enough to make meaningful comparisons. The sole exception to this is Italy, where the main market for pigs is Parma ham production. Parma ham requires pigs to achieve a very high liveweight of typically 160kg, equivalent to 130kg carcass weight. Consequently, Italian figures have been excluded from some of the tables where their inclusion would lead to spurious averages.

# COST OF PRODUCTION

## Aggregate results for 2005

The production costs of pig meat in 2005 for all the countries covered in this report are shown below in Figure 1. These, and most of the later tables/charts in this report (with the exception of Figure 2, which shows a comparison of costs based on hot carcase weights) are all based on cold carcase weights.

**Figure 1 Cost of production in selected EU countries, 2005**



This data includes all variable costs (other than transport of pigs to abattoirs) and fixed costs. Fixed costs include depreciation and interest costs for capital items such as buildings and equipment. Costs for regular and casual labour are included but no allowances are made for directors' salaries or partners' drawings.

Great Britain continued to have the highest production costs in 2005. However, in common with all the other countries, production costs declined compared with the previous year. On average it cost 104p to produce 1kg of pig meat in Great Britain, down from 111p in 2004. This compares with an overall average of 95p (100p in 2004). The 2005 cost of production was about 18p higher than the lowest-cost producers, Belgium and the Netherlands, and 14p higher than in France.

The impact of the higher production costs in Great Britain was again partly offset by producer prices being above the EU average. The UK average reference price in 2005 was 6p higher than the EU-15 average, at 101p/kg. This still, however, implies a loss of 3p on every kg of pig meat produced.

## Hot weight comparisons

The carcase weight of a pig can be measured in two ways: either hot, soon after slaughter, or cold. The cold weight is lower than the hot weight, as drip loss will have taken place. In the United Kingdom and some other EU countries the carcase is weighed hot. In this case, a rebate is applied to the hot weight in order to arrive at the cold weight equivalent.

The UK rebates from hot to cold weight for clean pigs are based on the interval between slaughter and weighing the carcase. For 75 kg (hot weight) pigs and above the rebates are: under 45 minutes=2kg, 46-180 minutes=1.5kg, 181-330 minutes=0.5kg, over 330 minutes = zero.

It is interesting to look at how costs of production vary when compared on a hot weight basis. The cost of producing a kg of pig meat in Great Britain falls from 104p cold weight to 102p hot weight.

**Table 1 Adjustments from hot weight to cold weight, 2005**

Changes to UK rebates

		AUS	BEL	DEN	FR	GER
Carcase weighed hot or cold?		H	H		C	H
Average carcase weight - Hot	kg	93.8	93.9	80.2	90.7	94.1
Adjustment from hot to cold	%*	-2.0%	2.0%	-1.2%	-3.3%	-2.0%
Adjusted carcase weight - Cold	kg	92.0	92.1	79.2	87.7	92.3
<hr/>						
Total cost (hot)	p/kg	101.3	84.0	90.6	87.6	97.2
Total cost (cold)	p/kg	103.3	85.7	91.7	90.6	99.2
		GB	IRE	IT	NL	SWE
Carcase weighed hot or cold?		H	C	C	H	C
Average carcase weight - Hot	kg	76.2	76.6	128.8	89.9	87.4
Adjustment from hot to cold	%*	≥ 2.0 kg	-2.0%	-2.2%	-2.0%	-2.0%
Adjusted carcase weight - Cold	kg	74.2	75.1	126.3	88.1	85.7
<hr/>						
Total cost (hot)	p/kg	101.7	92.1	124.7	84.0	94.4
Total cost (cold)	p/kg	104.4	94.0	127.2	85.7	96.3

\* Except in Great Britain where the adjustment is in kg

The costings in this book relate to 2005. But in 2006 the UK derogation on carcass rebates, which allowed a fixed rebate system for finished pigs, was rescinded. Consequently, a two per cent hot weight rebate is now applied, in common with other EU countries.

A switch from the fixed rebate system to the EU 2% reduction will provide benefits for producers selling heavier pigs, especially those above 75kg. A 75kg pig on the 2% system will have a 1.7kg weight rebate compared with a fixed rate of 2kg.

**Table 2 The current weight bands used under the UK derogation at 45 minutes post-kill compared with the new 2% rebate method and the proportion of UK kill falling into that category**

Hot weight carcase bands	proportion of UK slaughter per cent	Current Derogation	Potential deduction (2% of hot weight)
		kg	kg
Up to 56kg	3	1.0	
56.5-74.5kg	48	1.5	1.40
75kg	49	2.0	1.67

Many factors can influence the relative competitiveness of pig production in Great Britain. One of the most important, and also one which is outside the influence of producers, is the exchange rate.

Great Britain is in fact the only country out of the 10 covered by this report where exchange rates can have an important influence on relative production costs. Seven of the 10 countries are in the Eurozone. Two of the remaining currencies - the Swedish Kroner and the Danish Kroner - track the Euro, so that there are only minor fluctuations in exchange rates between the three currencies.



**Figure 2 The value of the Euro, 2000-2006**



In this report, costs of pig production for individual countries have been converted into sterling using the average annual exchange rates, as shown in table 3. However, changing exchange rates mean that trends in costs of production in the Eurozone countries will not necessarily be translated into the same trends in Sterling terms. An increase in the value of the Euro relative to sterling will increase costs of production in these countries in Sterling terms.

Exchange rate movements were particularly significant between 2000 and 2003, with a sharp increase in the value of the Euro against sterling being a positive factor in the European competitiveness of GB pigs.

During the course of 2005 the value of the Euro fluctuated between 66p and 70p. However, in the year as a whole it was up just one per cent to 68.4p. This implies a corresponding increase in non-GB costs in Sterling terms, ie a small positive effect on GB relative competitiveness. Estimates for 2006 indicate that the Euro will be broadly similar to 2005 at 68p

**Table 3 Annual Exchange Rates**

Year	€:£	1€ =
2000	1.643	60.9p
2001	1.609	62.2p
2002	1.591	62.9p
2003	1.447	69.1p
2004	1.474	67.8
2005	1.463	68.4

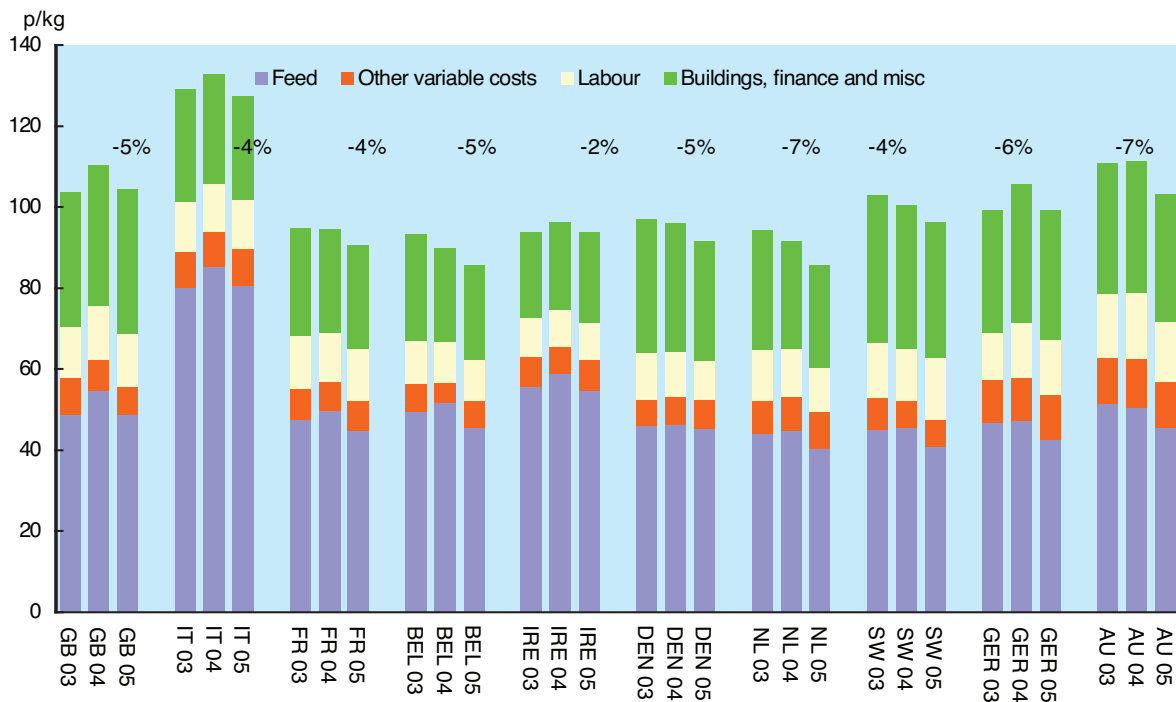
**Comparisons with previous years (in sterling terms)**

Costs of production in 2005 compared with results for 2003 and 2004 are shown in Figure 3.

The average cost of production in the participating countries, with the exception of Italy, declined by five per cent in 2005 to 94.5p/kg. A combination of improved performance and lower feed costs meant that total costs of production fell in all the participating countries. The recorded decline in costs was fairly consistent, with all countries except for Ireland showing reductions of between four and seven per cent.

Spanish results are not available for 2005. But in 2004, the sharpest increase in total costs occurred in Spain (+10%), partly as a result of much higher feed costs. With a weaker European cereal market in 2005, the likelihood is that Spanish production costs will have declined by more than the EU average.

**Figure 3 Comparison of Production Costs - 2003, 2004, 2005**



**Table 4 Average Costs of Production, 2000-2005 (p/kg dw)**

Table 5 examines national cost structures in rank order and looks at how these rankings have varied over time. There was little variation in relative costs in 2005, with Great Britain and Austria continuing to have

Year	Average cost	Max	Min	Range
2000	83.32	92.78(GB)	75.30(Ireland)	17.48
2002	94.27	105.54(GB)	87.18(Ireland)	18.35
2003	99.00	110.80(Austria)	93.45(Ireland)	17.35
2004	99.58	111.47(GB)	89.98(Belgium)	21.49
2005	94.54	104.41(GB)	85.68(Belgium)	18.73

Note: (1) GB, Denmark, France, Germany, Ireland, the Netherlands and Spain from 2000, Sweden and Austria from 2003. Italy has been excluded from the calculations.

the highest costs and Belgium, the Netherlands and France seeing the lowest costs.

Over a longer time span some more significant trends emerge, however. French pig meat production has become more competitive due to improvements in some of the physical performance measures, moving from 6th lowest cost producer in 2000 to 3rd lowest in 2004 and 2005. Irish pig meat cost of production, on the other hand, which was the lowest in 2002 has now fallen to 5th lowest.

**Table 5 Ranking of production costs, 2000-2005**  
**Cost comparisons in Euro terms**

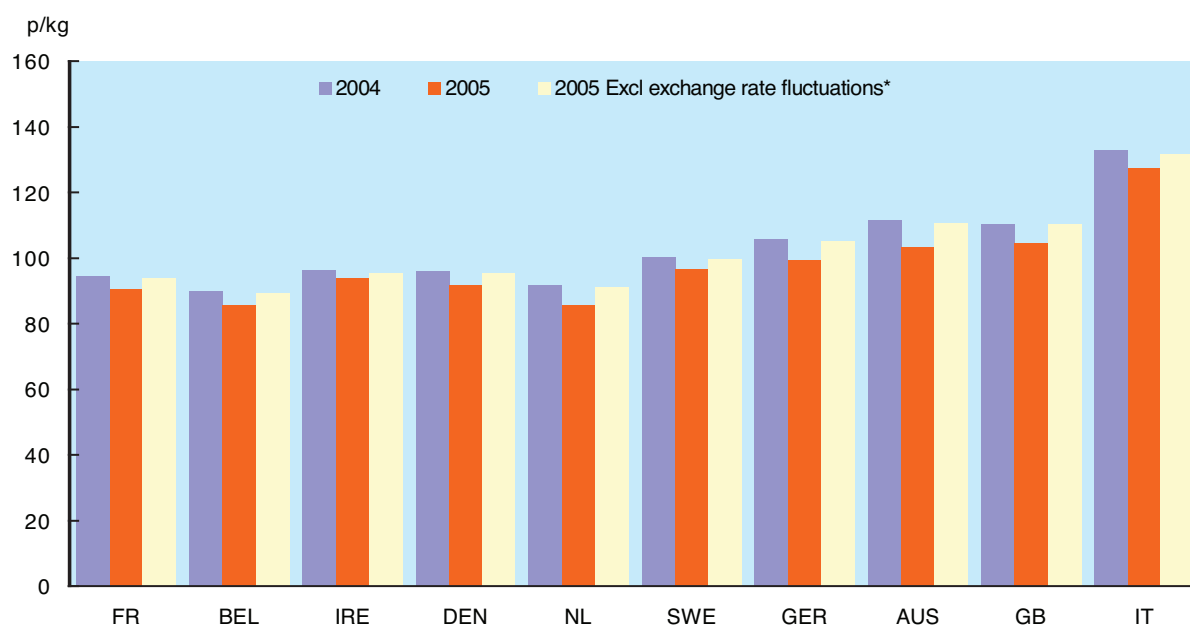
Year	2000	2002	2003	2004	2005
Austria	8	9	9	9	8
Denmark	3	6	5	4	4
France	6	5	4	3	3
Germany	5	4	6	7	7
Great Britain	9	8	8	8	9
Ireland	1	1	2	5	5
Netherlands	4	3	3	2	2
Belgium	2	2	1	1	1
Sweden	7	7	7	6	6

Note s: (1) Italy has been excluded from the calculations.

(3) Rankings: 1= lowest, 9 = highest.

The average cost of producing pig meat in the selected countries declined by five per cent in sterling terms in 2005. However, a one per cent strengthening in the value of the Euro against sterling meant that average prices in Euro terms declined by six per cent. Price movements in national currency terms can be seen by comparing the blue and yellow bars in Figure 4.

**Figure 4 Estimated Impact of Exchange Rate Movements on Production Costs in Sterling Terms**



\* 2005 costs in Euro terms converted at the 2004 average exchange rate

### Comparisons with non-EU countries

The EU's main international competitors on the world pig meat market are the United States, Canada and Brazil. It is therefore useful to look at published production costs for these countries and examine how they compare with EU costs.

These comparisons should be regarded as indicative only, as they are not in the InterPIG sample and therefore the methodology may differ. Also the specifications of pigs may be different in some way, so we

are not comparing like for like. For example, although Brazilian costs are relatively low, the typical lean meat percentage is much lower than in the EU and so their pigs will not be acceptable in some markets.

## **Brazil**

There are around 30 million pigs in Brazil on approximately 100,000 farms. Half of these pigs are kept on integrated farms. Most of the pigs are produced in the southern and south eastern states of Rio Grande do Sul and Santa Catarina, where the production systems are also highly vertical. Santa Catarina is the most important exporter, with 50-70 per cent of Brazilian exports originating there. Brazilian exports have recently been hit by Russian import restrictions.

Data from the Brazilian organisation CONAB is available in Brazilian Reals/kg liveweight. This has been converted to p/kg dw on the assumption of a killing out percentage of 75%. In 2005 the cost of producing a kg of pig meat in Santa Catarina was 53.4p. This compares with the EU average of 94.5p. A comparison of costs centres is particularly revealing. The cost of feed is 40p compared with the EU average of 45.4p while labour costs were 2.2p/kg compared with the EU average of 12.2p.

## **Canada**

There are approximately 15,000 Canadian farms on which pigs are kept. In contrast to the United States, most pigs in Canada are raised on family farms, many of which are closed systems with 250-500 sows. But there have been structural changes in recent years; many farms with less than 1000 pigs for slaughter (roughly equivalent to a 100-sow farm) have closed down while the multi-site system, often comprising 1,250-25,000 sows, has become more popular.

Conditions for pig farming are more favourable in the Prairie Provinces (Alberta, Saskatchewan and Manitoba) than the historical pig farming areas of Quebec and Ontario, as there are plentiful supplies of grain and good sales opportunities for pig farmers and lower land prices. The processing industry is investing strongly in abattoirs.

Canada is strongly dependent on exports, which go to over 90 different countries. Exports rose above one million tonnes for the first time in 2005, accounting for 56 per cent of total production. In addition, there is a considerable live export trade to the United States.

The Manitoba organisation MAFRI has produced guideline costs for a 300-sow farrow-finish unit. Converted at 2005 exchange rates, these show that the average pig meat production cost is 58.5p/kg dw. Feed costs and labour costs are both significantly lower than in the EU, at 28.9p and 7.3p respectively. However, feed costs on farms that are not situated in the Prairie Provinces may be somewhat higher than these figures.

## **United States**

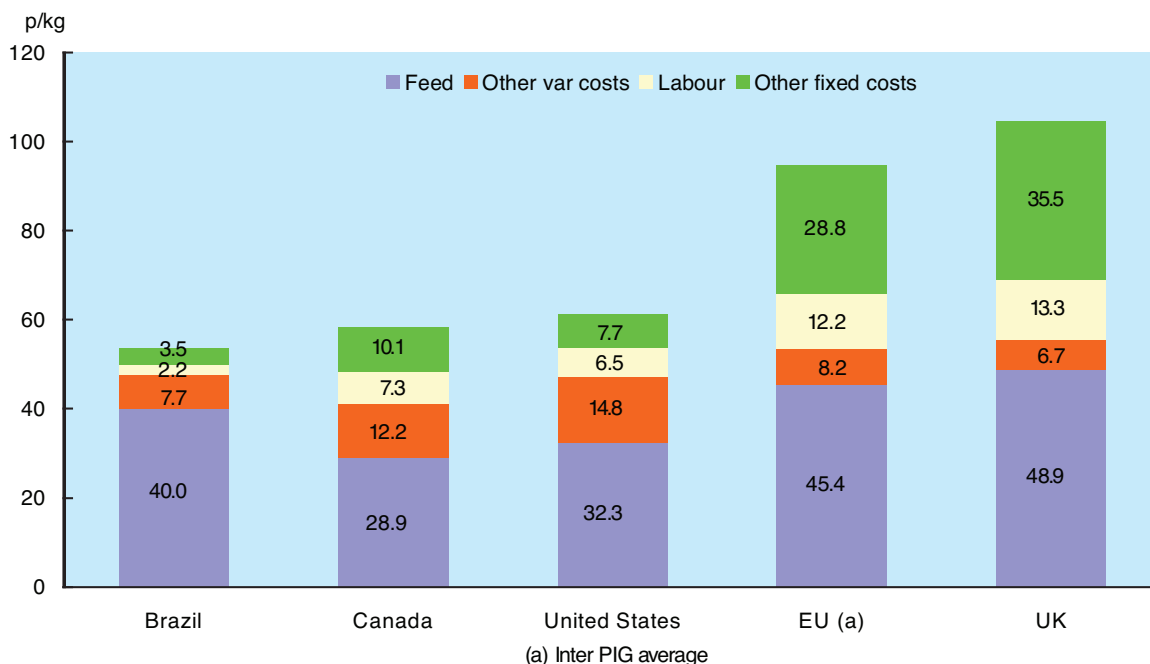
The US is the world's third biggest producer of pig meat, after China and the EU. American pig farmers were traditionally found in the Corn Belt, where cheap feed was available. However, a restructuring of farming has brought about a shift towards the Mid-West and also along the East Coast. The states of Iowa and Minnesota (the Mid-West) and North Carolina (east coast) together account for 51% of the US pig population. Average farm sizes are also largest in these regions.

Since the early 1990s there have been major structural changes in the US pig industry, with a move away from smaller family farms to much larger units. There has also been a move towards vertically integrated structures, with packers buying into the means of production.

The average slaughter weight in the United States has risen in the last 10 years from 79 to 87kg. Feed costs are low, although the feed conversion ratio is less favourable. The average age of weaning is 18 days, which compares with 28 days in the United Kingdom.

Iowa State University results for 2005 show that total production costs were 61.3p/kg dw. Again, labour costs and feed costs were significantly down on the EU average, at 6.5p and 32.3p respectively.

Figure 5 Comparisons with production costs in other countries, 2005



## CASH COST OF PRODUCTION

Table 6 gives a breakdown of the costs of production in Great Britain compared with the overall (excluding Italy) results. It is a more detailed version of Table 4.

The production costs estimated for Great Britain and other countries include “Finance Costs”, ie the depreciation of buildings and machinery. While this is the true cost of production, it is recognised that for many purposes (cash flow analyses, business plans, etc) producers will be more interested in the cash tied up in the production process.

The overall cost of producing a kg of pig meat in Great Britain in 2005 was 104.41p. However, if the finance costs element (17.05p) are excluded from the calculations, the cash costs of production fall to 87.36p/kg. This was about 8p lower than in 2004 but it was still higher than the other countries covered by this report. The average cash cost of production (excluding Italy) was 76.79p, with the lowest-cost producers being Belgium (68.79p) and the Netherlands (71.6P).

Table 6 Detailed breakdown of production costs

	EU-9(a)	GB
<b>Variable costs</b>	<b>63.64</b>	<b>72.61</b>
Feed	45.36	48.87
Breeding cost	2.01	1.62
Vet and med	3.16	3.06
Energy	3.03	1.99
Maintenance	3.54	7.37
Levies, insurance, inspection	1.22	2.63
Miscellaneous	5.31	7.07
	Cash costs= 76.79p	Cash costs= 87.36p
<b>Fixed costs</b>	<b>30.90</b>	<b>31.80</b>
Labour	12.15	13.34
Interest on working capital	1.00	1.42
Building and finance costs	17.75	17.05
<b>Total costs (b)</b>	<b>94.54</b>	<b>104.41</b>

(a) Excludes Italy

(b) Excludes transport from farm to abattoir

In estimating the depreciation charges we have assumed that buildings are amortized over a period of 20 years and equipment over a period of 10 years. But since the late 1990s the British pig industry has been characterised by a lack of investment in buildings and equipment as a result of a long run of economic and health crises. Consequently, many producers will be in the position of using buildings/machinery that have been completely amortized. Therefore, assuming they do not intend to replace their existing assets, their total costs will be much closer to the cash costs of production.

Producing pigs in ageing buildings is, however, also likely to mean higher maintenance costs, and this trend has been apparent in Great Britain in recent years.

## FINANCIAL PERFORMANCE SUMMARY

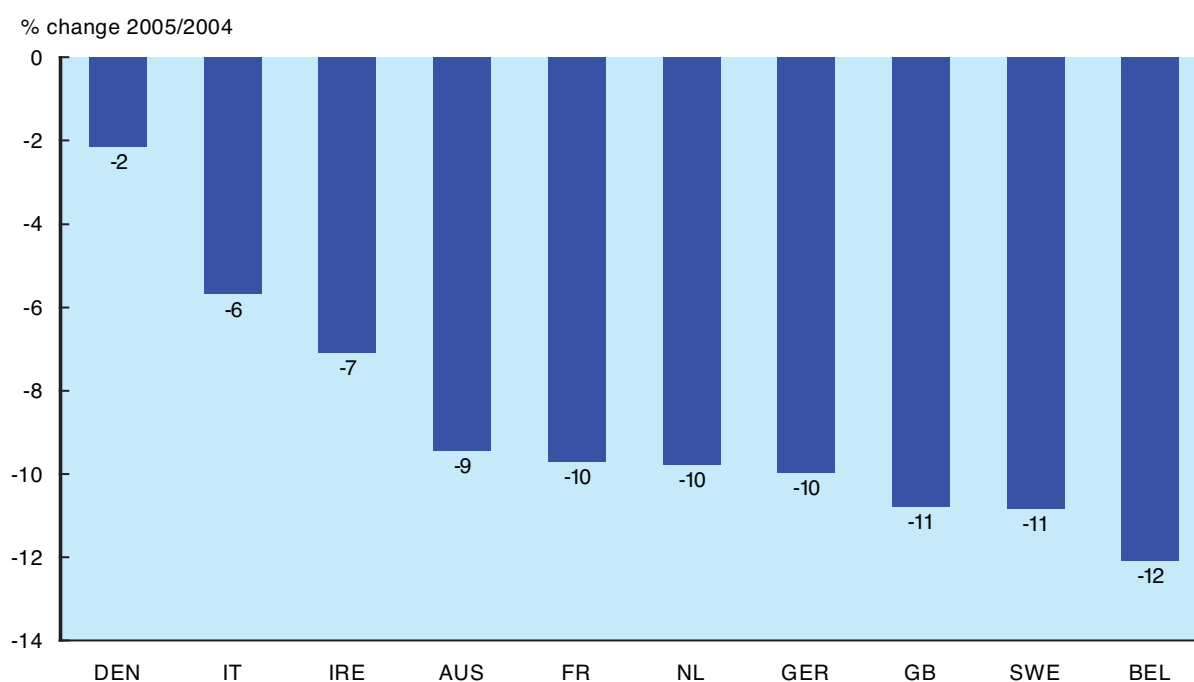
Among the countries whose cost structures are examined in this report, there is a range of nearly 20p/kg in the cost of producing a kg of pig meat. Some of this variation is due to differences in physical performance while some of it is due to differences in the prices of inputs (eg wage rates). This chapter examines the cost centres of European pig production to try and identify the causes of the wide range of total production costs. Table 9 contains financial performance data for 2005, while Table 10 presents comparisons with 2002, 2003 and 2004.

### Feed costs

Last year's report showed that there were some very significant increases in feed costs in 2004. Prices of raw materials began to increase sharply in the autumn of 2003. But because many pig producers buy forward, they were not faced with higher costs until 2004. There were a number of simultaneous reasons for the increase in prices, in particular:

- The unusually dry growing season throughout the spring and summer affected the wheat harvest in the UK and across much of the EU. The 2003 Eastern European harvest was also much poorer than the exceptionally good 2002 harvest.
- Low global stocks
- Fears that the Chinese might have to begin importing cereals
- Oilseeds showed even sharper increases due to a very poor soya harvest in the United States, which took prices to a 6-year high. This in turn pushed up all protein prices.

Figure 6 Changes in Feed Costs, 2005 (costs per kg of pig meat)



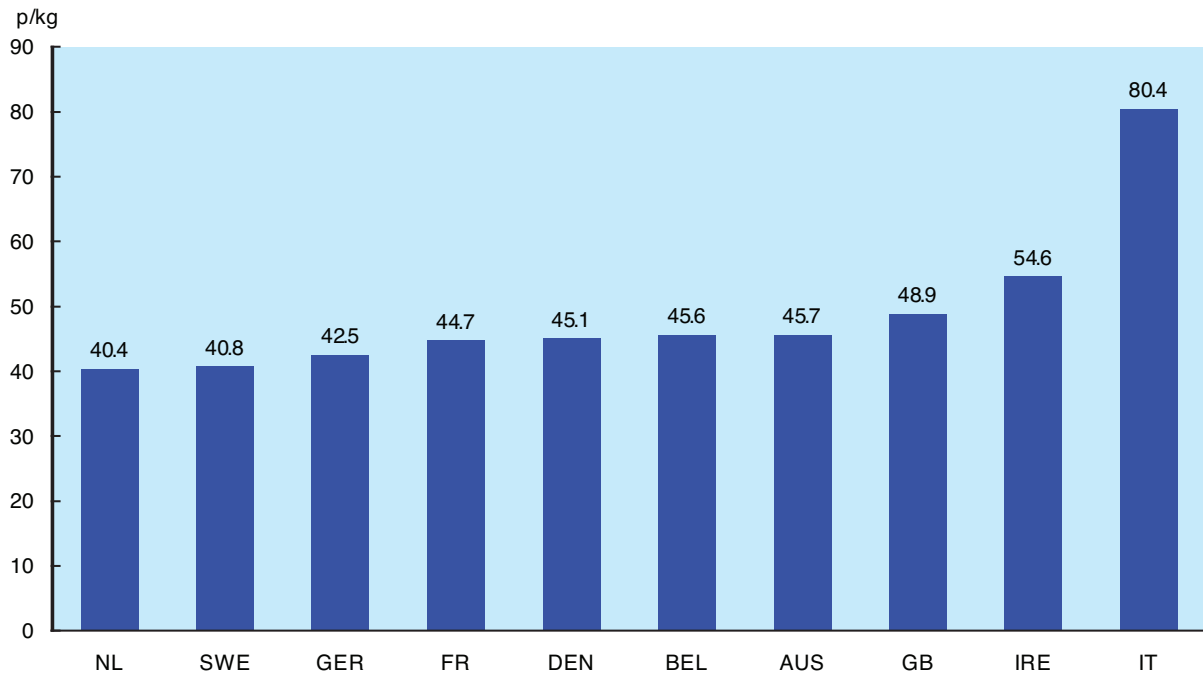
Pig producers had to face increased costs throughout the EU, although the situation was generally worse in Spain, Italy and Portugal than in northern Europe. This is because these countries are net importers of grain and had to import from outside the EU, thereby incurring import levies.

This combination of circumstances fortunately did not re-occur in the 2004/05 cereals season. Movements in cereal prices in selected countries are shown in Appendix 2.

Consequently, pig producers' feed costs fell throughout the EU in 2005, as indicated in Figure 6. The average decline across the countries covered by this report was nine per cent, with reductions in most of the countries within a narrow range of 9 to 12 per cent. There was a much smaller decline in Denmark

because the nature of the Danish collective bargaining process meant that prices rose by less than other countries in 2004.

**Figure 7 Feed Costs in 2005**



Feed costs averaged 49p/kg in Great Britain, down from 55p in 2004. Feed costs ranged from just over 40p/kg in the Netherlands and Sweden to 55p in Ireland.

An analysis of the 11 per cent decline in feed costs per kg of pig meat in Great Britain shows that the decline was due to a seven per cent increase in average feed prices per tonne and a three per cent fall in the quantity of feed used per pig,.

Table 7 examines feed costs in another way, by comparing the Metabolizable Energy (ME) of pig feed with the cost of the feed. Average energy content across all feeds showed a small variation, ranging from 12.26 MJ ME/kg in Austria to 13.97 MJ in Denmark. The figure for Great Britain was 13.11 MJ.



**Table 7 Comparison of Feed Costs**

	AUS	BEL	DEN	FR	GER
<b>£/tonne</b>					
Sow	129.19	116.16	114.15	112.78	110.05
Rearer	172.93	193.71	164.82	172.25	170.49
Finisher	112.24	118.45	109.01	102.53	97.66
Average	121.87	124.05	118.64	113.05	107.45
<b>Energy content (MJ ME/kg)</b>					
Sow	12.00	12.30	13.13	12.80	12.80
Rearer	13.00	13.10	15.21	13.30	13.30
Finisher	12.20	12.90	13.91	12.80	13.10
Average	12.26	12.82	13.97	12.86	13.07
<b>Cost of feed (p/kg MJ ME)</b>					
Sow	1.08	0.94	0.87	0.88	0.86
Rearer	1.33	1.48	1.08	1.30	1.28
Finisher	0.92	0.92	0.78	0.80	0.75
Average	0.99	0.97	0.85	0.88	0.82
	GB	IRE	IT	NL	SWE
<b>£/tonne</b>					
Sow	105.22	127.82	128.16	114.01	99.58
Rearer	179.61	222.99	276.67	174.95	147.65
Finisher	119.69	127.82	128.16	106.41	98.71
Average	126.86	146.17	139.38	113.90	104.44
<b>Energy content (MJ ME/kg)</b>					
Sow	13.02	13.25	11.90	12.90	12.60
Rearer	13.73	14.00	13.80	13.60	13.50
Finisher	12.96	13.20	12.74	13.80	12.50
Average	13.11	13.36	12.73	13.64	12.63
<b>Cost of feed (p/kg MJ ME)</b>					
Sow	0.81	0.96	1.08	0.88	0.79
Rearer	1.31	1.59	2.00	1.29	1.09
Finisher	0.92	0.97	1.01	0.77	0.79
Average	0.97	1.09	1.09	0.84	0.83

The cost of sow feed per kg MJ ME in Great Britain, as in previous years, was relatively low, at 89 per cent of the average of the participating countries. However, more expensive finisher feed (108 per cent of the average) meant that overall costs were 104 per cent of the EU average. Rearer and finisher costs were much closer to the average, at 98 per cent and 103 per cent respectively. Overall, using this measure of feed costs, Italy and Ireland had considerably more expensive feed than in Great Britain. At the other extreme feed costs in Sweden and Germany were around 20 per cent lower, mainly due to relatively inexpensive finisher rations.

### Labour

There is a substantial range in each of the three elements in labour cost: the amount of labour per pig, labour cost per hour and the average carcass weight. Labour input expressed as hours/year per finished pig can vary for a number of reasons including differences in husbandry methods, types of building and the availability of labour. The Austrian figure (1.75 hours) is around three times that of Denmark (0.60 hours), while the Netherlands is also relatively low (0.75 hours). The labour input in Great Britain (1.16 hours) is slightly higher than the EU average (1.09 hours), with poorer physical performance being a contributory factor.

In 2005 a decline in the amount of labour per pig was recorded in all countries except Sweden. The Great Britain figure declined from 1.23 hours in 2004 to 1.16 hours. Over time, rising costs combined with skill

shortages in Europe will have been a powerful incentive to increase labour efficiency. However the recorded improvements between 2004 and 2005 are more likely to have been due to generalised improvements in performance that have led to more pigs being produced per sow.

**Table 8 Labour Costs in 2005 (p/kg dw)**

	AUS	BEL	DEN	FR	GER
<b>Labour per finished pig (hours/year)</b>	1.75	0.90	0.60	1.01	1.20
Labour cost/hour (£)	7.86	10.25	12.86	10.98	10.25
Labour cost/pig (£)	13.73	9.26	7.74	11.07	12.30
Average carcass weight (cold)	92.00	92.06	79.21	87.67	92.26
Labour cost/kg (p)	14.92	10.06	9.77	12.63	13.34
	GB	IRE	IT	NL	SWE
<b>Labour per finished pig (hours/year)</b>	1.16	0.96	1.69	0.75	0.93
Labour cost/hour (£)	8.54	7.18	9.02	12.83	13.99
Labour cost/pig (£)	9.90	6.90	15.24	9.58	13.06
Average carcass weight (cold)	74.20	75.10	126.30	88.10	85.70
Labour cost/kg (p)	13.34	9.18	12.07	10.88	15.24

The average labour cost per hour in the 10 participating countries was £10.38, up from £9.69 in 2004. There was a substantial range in costs, from £7.18 in Ireland to £13.99 in Sweden. These variations not only reflect average wage rates but also national differences in social security payments made by employers as well as differences in the relative usage of unskilled labour. Cost per hour in Great Britain was £8.54.

The average labour cost per pig in the 10 countries was £10.88 in 2005. Italy had the highest costs (£15.24) by virtue of the fact that its pigs are finished to much heavier weights over a longer period of time. Costs in the other countries ranged from £6.90 in Ireland and £7.74 in Denmark to £13.73 in Austria. The comparative advantage of Ireland is due to low costs per hour while the Danish advantage is the very high labour efficiency. Costs in Great Britain per pig were £9.90, 91 per cent of the overall average.

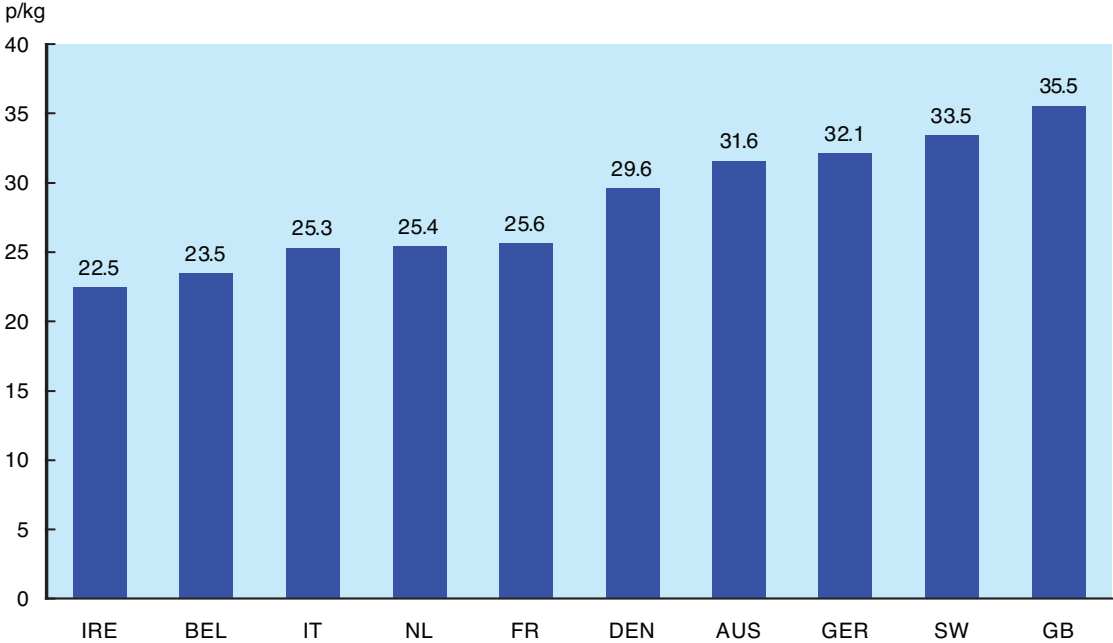
However, the average weight of British pigs is lower than in most other countries. When this factor is taken into account, the labour cost per kg (13.3p) rises to 110 per cent of the overall average. British costs per kg were the same as Germany in 2005, and exceeded only by Austria and Sweden.

### **Building, Finance and Miscellaneous (BFM)**

Building, finance and miscellaneous costs were highest in Great Britain, at 35.5p/kg. Variations in BFM costs are a particularly significant factor in total cost structures. British costs are 10-12p/kg more than in Belgium, the Netherlands and France - the countries with the lowest total costs.

BFM costs include depreciation charges on buildings and machinery, maintenance charges, interest on working capital, levies, manure disposal charges and costs of disposal of dead animals. The depreciation estimates are based on replacement costs, with buildings being amortized over a period of 20 years and equipment over a period of 10 years.

Figure 8 Building, Finance and Miscellaneous Costs, 2005



**Table 9 Summary of Financial Performance, 2005**

	AUS	BEL	DEN	FR	GER	GB	IRE	IT	NL	SWE
Feed	45.69	45.57	45.13	44.74	42.53	48.87	54.60	80.44	40.38	40.76
Other Variable Costs	11.10	6.54	7.14	7.57	11.24	6.67	7.69	9.35	9.04	6.88
Total Variable Costs	56.79	52.11	52.27	52.31	53.77	55.54	62.29	89.79	49.42	47.64
Labour	14.92	10.06	9.77	12.63	13.34	13.34	9.18	12.07	10.88	15.24
Building, finance and misc	31.58	23.50	29.62	25.64	32.12	35.54	22.48	25.34	25.41	33.46
Total fixed costs	46.50	33.56	39.39	38.27	45.46	48.87	31.67	37.41	36.29	48.70
Total	103.29	85.68	91.66	90.57	99.23	104.41	93.96	127.20	85.71	96.33

**Table 10 Summary of Financial Performance 2002 - 2005**

	AUS				BEL			
	2003	2004	2005	2002	2003	2004	2005	
Feed		51.38	50.45	45.69	46.96	49.43	51.84	45.57
Other Variable Costs		11.41	12.09	11.10	7.38	6.99	4.81	6.54
Total Variable Costs		62.79	62.54	56.79	54.33	56.42	56.65	52.11
Labour		15.70	16.51	14.92	9.90	10.71	10.21	10.06
Building, finance and misc		32.31	32.42	31.58	24.31	26.32	23.12	23.50
Total fixed costs		48.01	48.93	46.50	34.21	37.02	33.33	33.56
<b>Total</b>		110.80	111.47	103.29	88.54	93.45	89.98	85.68
	DEN				FR			
	2002	2003	2004	2005	2002	2003	2004	2005
Feed	48.18	45.89	46.12	45.13	50.32	47.54	49.54	44.74
Other Variable Costs	5.05	6.61	7.11	7.14	7.96	7.59	7.38	7.57
Total Variable Costs	53.23	52.49	53.22	52.27	58.28	55.13	56.92	52.31
Labour	11.60	11.49	11.16	9.77	10.89	13.15	12.01	12.63
Building, finance and misc	32.17	33.01	31.74	29.62	26.79	26.60	25.50	25.64
Total fixed costs	43.77	44.50	42.89	39.39	37.68	39.75	37.51	38.27
<b>Total</b>	97.00	96.99	96.12	91.66	95.96	94.88	94.43	90.57
	GER				GB			
	2002	2003	2004	2005	2002	2003	2004	2005
Feed	46.46	46.80	47.24	42.53	54.62	48.76	54.77	48.87
Other Variable Costs	7.97	10.70	10.81	11.24	7.37	9.15	7.52	6.67
Total Variable Costs	54.43	57.50	58.05	53.77	61.99	57.91	62.29	55.54
Labour	11.40	11.42	13.54	13.34	12.46	12.60	13.27	13.34
Building, finance and misc	29.21	30.27	34.10	32.12	31.08	33.20	34.74	35.54
Total fixed costs	40.61	41.69	47.65	45.46	43.54	45.79	48.01	48.87
<b>Total</b>	95.04	99.18	105.69	99.23	105.54	103.71	110.30	104.41
	IRE				IT			
	2002	2003	2004	2005	2002	2003	2004	2005
Feed	52.13	55.65	58.77	54.60	74.89	80.14	85.29	80.44
Other Variable Costs	5.91	7.46	6.87	7.69	6.94	8.90	8.62	9.35
Total Variable Costs	58.04	63.11	65.64	62.29	81.83	89.04	93.91	89.79
Labour	9.07	9.62	9.09	9.18	10.87	12.34	11.88	12.07
Building, finance and misc	20.07	21.13	21.50	22.48	24.75	27.67	27.03	25.34
Total fixed costs	29.15	30.76	30.59	31.67	35.62	40.01	38.91	37.41
<b>Total</b>	87.18	93.87	96.23	93.96	117.45	129.05	132.82	127.20
	NL				SWE			
	2002	2003	2004	2005	2003	2004	2005	
Feed	41.88	44.01	44.76	40.38	45.05	45.71	40.76	
Other Variable Costs	3.82	8.25	8.55	9.04	7.89	6.38	6.88	
Total Variable Costs	45.70	52.26	53.30	49.42	52.94	52.09	47.64	
Labour	12.40	12.48	11.84	10.88	13.39	12.80	15.24	
Building, finance and misc	32.56	29.63	26.61	25.41	36.63	35.39	33.46	
Total fixed costs	44.96	42.11	38.45	36.29	50.02	48.19	48.70	
<b>Total</b>	90.66	94.37	91.76	85.71	102.96	100.27	96.33	

## PHYSICAL PERFORMANCE SUMMARY

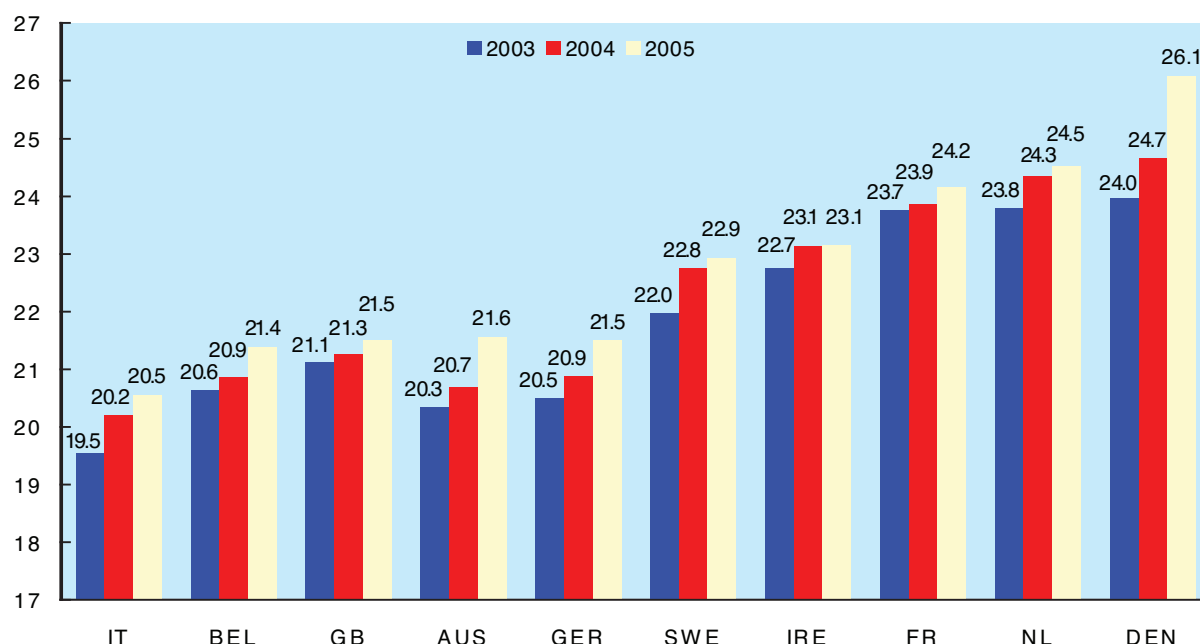
Table 12 contains physical performance data for selected EU countries in 2005, while Table 13 presents comparisons with 2002, 2003 and 2004.

### Pigs Weaned per Sow per year

There was a general improvement for the second year running in the number of pigs weaned per sow. The average for the countries in the sample increased from 22.3 pigs/sow to 22.7 pigs, with all countries except Ireland recording an improvement. Denmark continued to achieve the best results and, at 26.1 pigs, also showed the most significant improvement compared with 2004. The good results from Denmark are due in particular to the number of pigs born alive per litter, up from 12.7 to 13.2. However, litters per sow were also higher in 2005 and there was a decline in pre-weaning mortality.

Italy had the lowest number of pigs weaned per sow as a result of its different production system, with pigs being finished to much heavier weights than in other European countries. Belgium had the second lowest number of pigs weaned/sow although, in spite of this, Belgium had the lowest pig meat production costs.

**Figure 9 Pigs Weaned per Sow per Year, 2003 - 2005**



The number of pigs weaned per sow in Great Britain continued to improve in 2005, although it still had the third lowest number (21.5). However there has now been an improvement in every year since 2002. The relatively poor performance is due to pigs born alive/litter and litters/sow being below the overall average, although both these performance measures improved in 2005. The improvement in litters per sow has been particularly impressive, rising from 2.17 in 2002 to 2.22 in 2005.

### Post-Weaning Mortality

The number of pigs finished per sow per year is determined by pigs weaned and by post-weaning mortality. Table 11 below shows national comparisons of post-weaning mortality (rearing and finishing herd combined), and how these have changed between 2002 and 2005. There was a considerable range in mortality levels. The lowest mortality in national herds occurs in Italy (3.9%) and Sweden (4.2%).

Great Britain had the highest mortality (9.7%), but this declined significantly between 2004 and 2005 as a result of the declining incidence of PMWS. Mortality in both rearing and finishing herds declined in 2005, although the fall was particularly marked in the rearing herd (down from 5.0% to 3.4%). Mortality in GB is, however, still higher than in 2000, before the spread of PMWS, when it stood at 5.3 per cent.

More recent quarterly Pig Plan data from Agrosoft indicate a continued improvement in post-weaning mortality into 2006, with a decline of 0.9 percentage points between the second quarter of 2005 and the second quarter of 2006.

**Table 11 Post-weaning Mortality, 2002 - 2005**

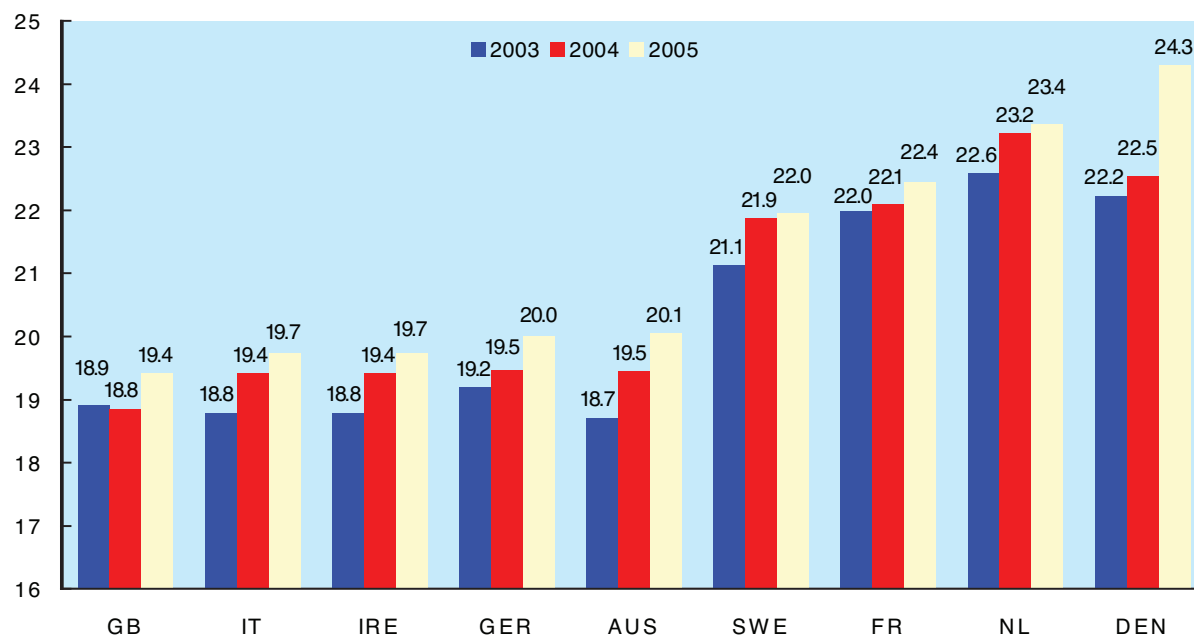
	2002	2003	2004	2005
Austria	na	7.9%	5.9%	6.9%
Belgium	8.6%	8.4%	7.4%	8.0%
Denmark	7.4%	7.3%	8.6%	6.9%
France	7.6%	7.5%	7.4%	7.1%
Germany	7.7%	6.4%	6.8%	7.0%
Great Britain	10.2%	10.5%	11.4%	9.7%
Ireland	4.4%	4.4%	5.5%	5.4%
Italy	2.6%	3.8%	3.9%	3.9%
Netherlands	5.6%	5.0%	4.6%	4.7%
Sweden	na	3.8%	3.9%	4.2%

### Pigs Finished per Sow per Year

In 2005 the highest number of pigs finished/sow was achieved by Denmark (24.3) due to both having the highest number of pigs weaned/ sow and also because of a significant decline in post-weaning mortality. In previous years the Netherlands had the best results, but in 2005 it was in second place (23.4 pigs) followed by France (22.5 pigs). The average figure was 21.4 pigs, up from 20.9 pigs in 2004.

The poorest performing country continued to be Great Britain (19.4 pigs). But this was 0.6 pigs higher than in 2004 due to both the better results for pigs weaned/sow and the reduction in post-weaning mortality.

**Figure 10 Pigs Finished per Sow per Year, 2003 - 2005**



### Daily Liveweight Gains (DLG)

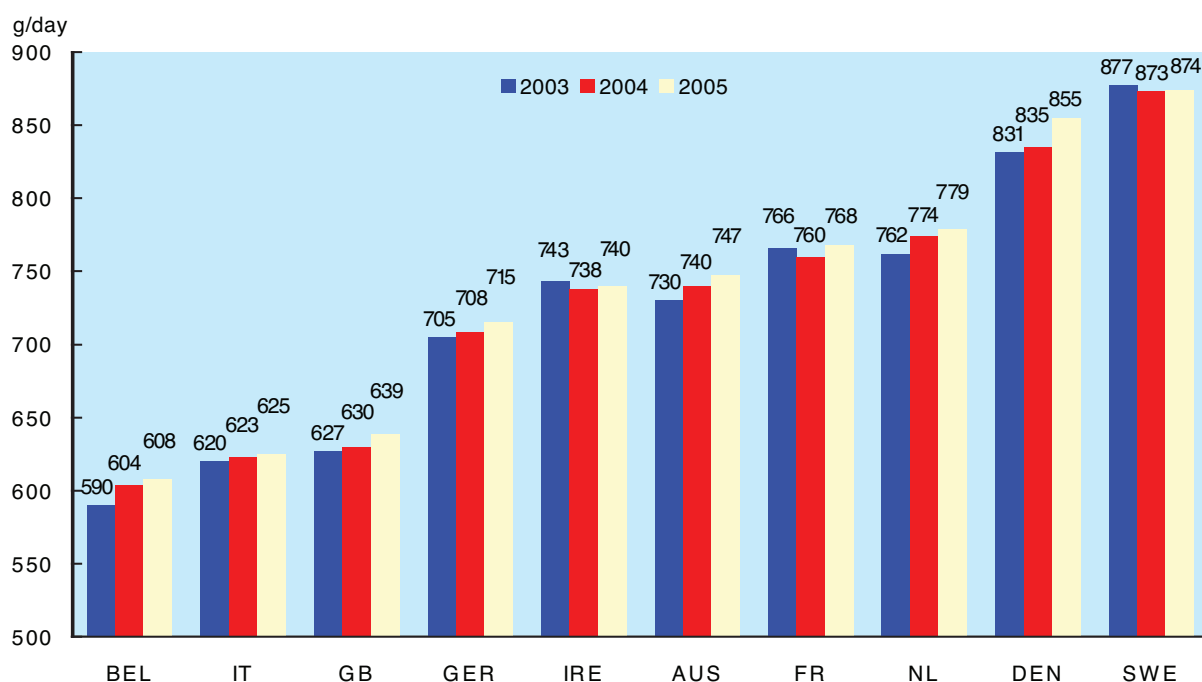
Average DLG in Great Britain finishing herd was 639g per day, which was third lowest after Italy and Belgium. DLG increased by only 9g between 2004 and 2005, with little change having occurred since 2002. The 2005 figure was still 18g lower than in 2000. Performance continues to be hampered by health

problems in some herds and also because of a lack of investment in new buildings and equipment, arising from continued poor profitability.

The average DLG across the ten countries was 735g, with Sweden (874g) and Denmark (855g) having the best growth rates. The better performance recorded by some countries is in reality greater than indicated by Figure 11. This is because DLG is not linear, but declines as animals become heavier. Consequently, countries with higher slaughter weights would, other things being equal, have a lower average DLG. The most striking examples of this are in the Netherlands and France, both of which have a higher DLG than in Great Britain.

Although the GB finishing herd results for DLG were disappointing, rearing herd DLG showed a substantial improvement in 2005. Average results increased from 449g/day in 2004 to 509g/day in 2005. This means that the number of days needed to get a pig from 7kg to 35kg falls from 65 days to 59 days, with obvious implications for costs of production.

**Figure 11 Daily Liveweight Gains (Finishing Herds) 2003 - 2005**



### Feed Conversion Ratios (FCR)

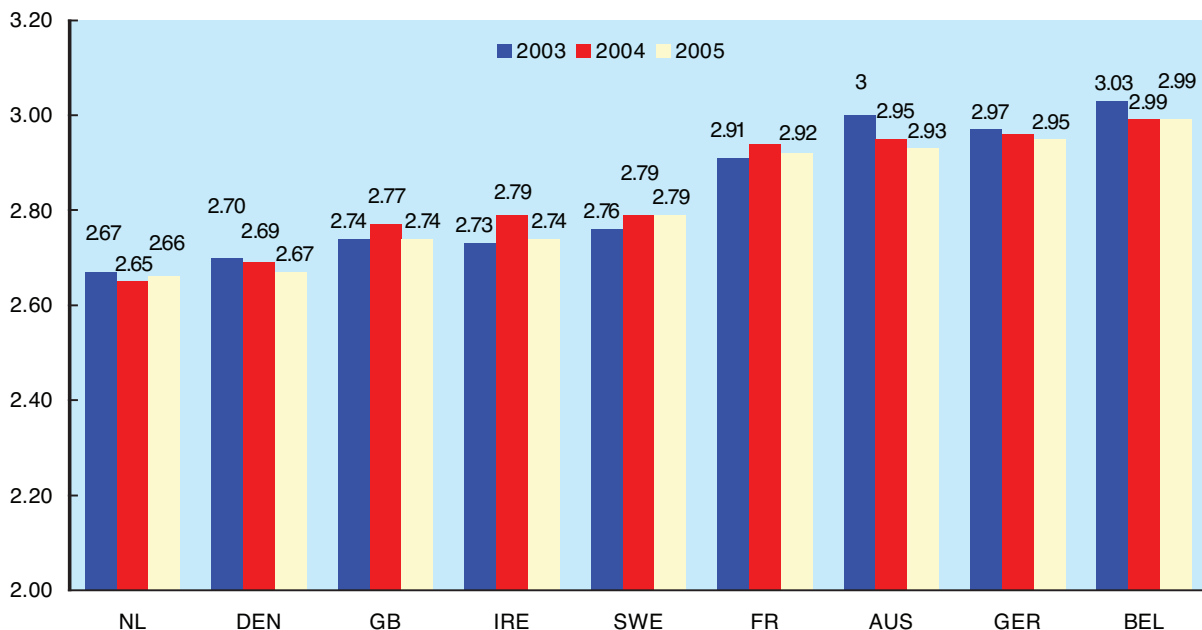
As with Daily Liveweight Gain, FCR is partly correlated with average weight at slaughter. Thus the highest FCR is in Italy, followed by Germany and Austria. This relationship does not always apply, however, as the Netherlands has a low FCR and relatively heavy pigs. The average FCR in 2005 was 2.83, virtually the same as in 2004.

Great Britain had the third lowest FCR in 2005, after the Netherlands and Denmark. However, this relatively good performance will have been due to the fact that pigs are finished to lower weights than in most other countries. Feed Conversion Ratio in the finishing herd have been little changed since 2002. However, as with DLG, a significant improvement was recorded in the rearing herd in 2005, with the feed conversion ratio falling from 1.84 to 1.70.

From 1 January 2006 there was a ban on the four remaining antibiotic growth promoters (AGPs) in pig feed, although some countries had already taken unilateral steps to ban all use of AGPs. Most significantly, Denmark banned their use in pigs over 35kg in March 1998, followed in January 2000 by a ban for all pigs. A detailed description and analysis appeared in last year's report. One of the major consequences of the removal of the AGPs is a reduction in daily liveweight gain and increased variability in growth rates. This will therefore be a factor in the FCRs published in next year's report.



Figure 12 Feed Conversion Ratios (Finishing herds), 2003 - 2005 (a)



**Carcase weight production per sow/year**

The amount of carcass meat produced per sow is the product of the number of pigs finished per sow and the average carcass weight of pigs. Great Britain produces lighter pigs than elsewhere in Europe and this, together with the below-average number of pigs finished per sow, means that the amount of carcass meat produced per sow is the lowest of all the countries surveyed.

The amount of carcass meat produced per sow in Great Britain was 1.44 tonnes in 2005, significantly below the overall average (excluding Italy) of 1.84 tonnes. The most productive country, based on this criterion, was the Netherlands, at 2.06 tonnes. Nevertheless, the Great Britain figures have been on an upward trend, increasing from 1.35 tonnes in 2002 to 1.44 tonnes in 2004. This was due to higher carcass weights and increases in pigs finished per sow.

Figure 13 Carcass meat production per sow/year

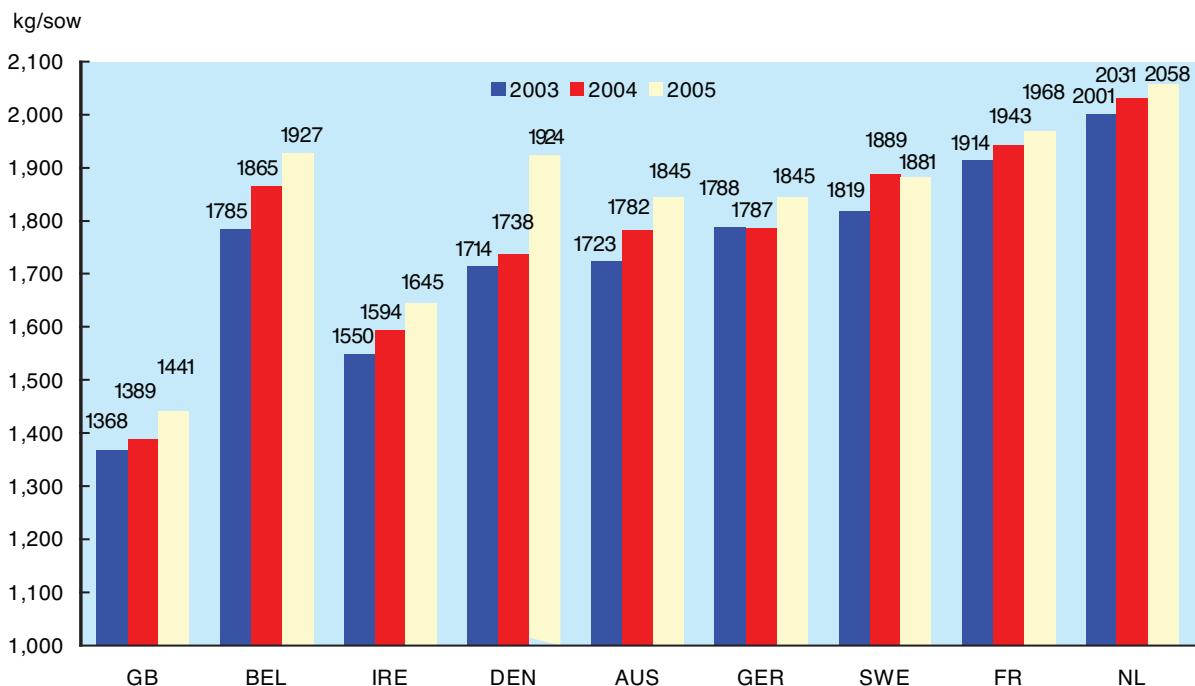


Table 12 Summary of Physical performance, 2005

	AUS	BEL	DEN	FR	GER	GB	IRE	IT	NL	SWE
Pigs Weaned Per Sow Per Year	21.56	21.39	26.09	24.16	21.50	21.50	23.14	20.55	24.52	22.91
Pigs Sold Per Sow Per year	20.05	20.93	24.29	22.45	20.00	19.42	21.90	19.74	23.36	21.95
Litters/sow/year(1)	2.24	2.28	2.27	2.24	2.26	2.22	2.28	2.17	2.33	2.22
Pigs born alive per litter	10.90	10.72	13.22	12.60	11.10	10.87	11.19	10.60	12.00	12.10
Sow mortality	1.5%	5.0%	14.1%	5.9%	6.0%	4.7%	6.0%	0.5%	5.0%	6.4%
Pre Weaning Mortality	11.7%	12.4%	13.1%	14.4%	14.3%	10.9%	9.3%	10.7%	12.3%	14.7%
Rearing Mortality	4.0%	4.0%	3.0%	2.4%	3.0%	3.4%	3.2%	3.3%	1.9%	2.6%
Finishing Mortality	3.0%	4.2%	4.0%	4.8%	4.1%	6.5%	2.3%	0.6%	2.9%	1.6%
Sow replacement rate	34.5%	40.0%	53.6%	42.9%	40.5%	44.7%	52.2%	37.0%	42.0%	49.3%
Transfer weight from breeding to rearing unit (kg)	8.00	7.20	7.21	7.50	7.50	6.40	6.70	7.60	7.75	9.50
Age of weaning	29	26	30	25	27	26	28	27	26	34
Transfer weight from rearing to finishing unit (kg)	31.50	22.80	30.11	32.30	29.00	36.30	36.30	35.00	25.60	30.10
Rearing Daily Liveweight Gain (g/day)	420.00	325.00	427.00	470.00	439.00	509.00	444.00	437.00	329.00	411.00
Rearing Feed Conversion Ratio	2.00	1.72	1.81	1.76	1.80	1.70	1.82	2.01	1.61	1.97
Finishing Daily Liveweight Gain (g/day)	747.00	608.00	855.00	768.00	715.00	639.00	740.00	625.00	779.00	874.00
Finishing Feed Conversion Ratio	2.93	2.99	2.67	2.92	2.95	2.74	2.74	4.67	2.66	2.79
Ave number of days in rearing unit	56	48	54	53	49	59	67	64	54	50
Ave number of days in finishing unit	116	151	88	107	126	95	84	208	113	97
Pigs per pig place per year (finishing)	2.97	2.31	3.86	3.20	2.75	3.58	4.00	1.70	3.04	3.51
Average live weight at slaughter	118.00	114.62	105.02	114.60	119.00	96.90	98.60	163.00	113.80	114.84
Carcase weighed hot or cold?	H	H	H	C	H	H	C	C	H	C
Average carcase weight - Hot	93.8	93.9	80.2	90.7	94.1	76.2	76.6	128.8	89.9	87.4
Adjustment from hot to cold	-2.0%	2.0%	-1.2%	-3.3%	-2.0%	≥ 2.0 kg	-2.0%	-2.2%	-2.0%	-2.0%
Adjusted carcase weight - Cold	92.0	92.1	79.2	87.7	92.3	74.2	75.1	126.3	88.1	85.7
Killing out percentage	78.0%	80.3%	75.4%	76.5%	77.5%	76.6%	76.2%	77.5%	77.4%	74.6%
Carcase meat production per sow per year (kg)	1,845	1,927	1,924	1,968	1,845	1,441	1,645	2,493	2,058	1,881
Average lean meat percentage	59.2%	62.0%	60.3%	61.3%	56.5%	61.1%	58.9%	47.0%	56.2%	57.5%
Lean meat production per sow per year (kg)	1,092	1,195	1,161	1,206	1,042	880	969	1,172	1,157	1,082
Sow feed (kg) per sow per year	1,060	1,149	1,318	1,331	1,220	1,339	1,220	1,502	1,145	1,334
Sow ration Ave Energy Content (MJ ME/kg)	12.0	12.3	13.1	12.8	12.8	13.0	13.3	11.9	12.9	12.6
Weaner/Rearer feed (kg) per pig	40.0	26.8	47.0	43.6	38.7	50.8	54.1	55.1	28.7	38.1
Weaner/Rearer ration Ave Energy Content (MJ ME/kg)	13.0	13.1	15.2	13.3	13.3	13.7	14.0	13.8	13.6	13.5
Finishing pigs feed consumption (kg) per pig	252.0	256.5	200.0	244.0	265.5	166.0	170.7	597.8	234.6	235.6
Finisher ration Ave Energy Content (MJ ME/kg)	12.2	12.9	13.9	12.8	13.1	13.0	13.2	12.7	13.8	12.5

**Table 13 Summary of Physical Performance 2002 - 2005**

	AUS				BEL			
	2003	2004	2005	2002	2003	2004	2005	
Pigs Weaned Per Sow Per Year	20.34	20.69	21.56	20.28	20.63	20.87	21.39	
Pigs Sold Per Sow Per year	18.71	19.45	20.05	19.43	19.63	20.35	20.93	
Litters/sow/year(1)	2.20	2.19	2.24	2.23	2.25	2.25	2.28	
Pigs born alive per litter	10.60	10.79	10.90	10.38	10.42	10.57	10.72	
Pre Weaning Mortality	12.8%	12.4%	11.7%	12.3%	12.2%	12.3%	12.4%	
Rearing Mortality	5.0%	3.0%	4.0%	4.4%	4.3%	3.6%	4.0%	
Finishing Mortality	3.0%	3.0%	3.0%	4.4%	4.3%	3.9%	4.2%	
Finishing Daily Liveweight Gain (g/day) 730	740	747	598	590	604	608		
Finishing Feed Conversion Ratio	3.00	2.95	2.93	2.98	3.03	2.99	2.99	
Average live weight at slaughter	118.0	117.3	118.0	112.4	113.2	114.1	114.6	
Adjusted carcass weight - Cold	92.1	91.6	92.0	90.3	90.9	91.7	92.1	
Carcass meat production/sow/year (kg) 1723	1782	1845	1754	1785	1865	1927		
Average lean meat percentage	60.5%	60.5%	59.2%	60.5%	60.5%	60.5%	62.0%	
Lean meat production/sow/year (kg)	1043	1078	1092	1061	1080	1129	1195	
	DEN				FR			
	2002	2003	2004	2005	2002	2003	2004	2005
Pigs Weaned Per Sow Per Year	23.80	23.97	24.66	26.09	23.51	23.75	23.86	24.16
Pigs Sold Per Sow Per year	22.01	22.23	22.54	24.29	21.70	21.98	22.10	22.45
Litters/sow/year(1)	2.25	2.25	2.25	2.27	2.22	2.24	2.23	2.24
Pigs born alive per litter	12.20	12.30	12.70	13.22	12.20	12.30	12.50	12.60
Pre Weaning Mortality	13.3%	13.4%	13.7%	13.1%	13.2%	13.8%	14.2%	14.4%
Rearing Mortality	3.7%	3.6%	4.6%	3.0%	2.6%	2.6%	2.5%	2.4%
Finishing Mortality	3.8%	3.8%	4.2%	4.0%	5.1%	5.0%	5.0%	4.8%
Finishing Daily Liveweight Gain (g/day) 827	831	835	855	766	766	760	768	
Finishing Feed Conversion Ratio	2.74	2.70	2.69	2.67	2.94	2.91	2.94	2.92
Average live weight at slaughter	101.0	102.0	102.0	105.0	113.6	113.8	114.9	114.6
Adjusted carcass weight - Cold	77.0	77.1	77.1	79.2	86.9	87.1	87.9	87.7
Carcass meat production/sow/year (kg) 1695	1714	1738	1924	1886	1914	1943	1968	
Average lean meat percentage	60.0%	60.0%	60.1%	60.3%	60.3%	60.4%	61.1%	61.3%
Lean meat production/sow/year (kg)	1017	1028	1044	1161	1137	1156	1187	1206
	GER				GB			
	2002	2003	2004	2005	2002	2003	2004	2005
Pigs Weaned Per Sow Per Year	21.58	20.50	20.88	21.50	21.08	21.12	21.27	21.50
Pigs Sold Per Sow Per year	19.90	19.18	19.46	20.00	18.92	18.90	18.85	19.42
Litters/sow/year(1)	2.25	2.23	2.24	2.26	2.17	2.20	2.21	2.22
Pigs born alive per litter	10.88	10.80	10.90	11.10	10.89	10.74	10.74	10.87
Pre Weaning Mortality	11.8%	14.9%	14.5%	14.3%	10.8%	10.6%	10.4%	10.9%
Rearing Mortality	4.9%	2.8%	3.0%	3.0%	4.2%	4.3%	5.0%	3.4%
Finishing Mortality	2.9%	3.7%	3.9%	4.1%	6.3%	6.5%	6.7%	6.5%
Finishing Daily Liveweight Gain (g/day) 740	705	708	715	635	627	630	639	
Finishing Feed Conversion Ratio	2.91	2.97	2.96	2.95	2.72	2.74	2.77	2.74
Average live weight at slaughter	116.0	118.0	118.2	119.0	97.1	96.1	97.9	96.9
Adjusted carcass weight - Cold	93.0	93.2	91.8	92.3	71.5	72.4	73.7	74.2
Carcass meat production/sow/year (kg) 1851	1788	1787	1845	1353	1368	1389	1441	
Average lean meat percentage	na	56.0%	56.4%	56.5%	61.1%	61.1%	61.3%	61.1%
Lean meat production/sow/year (kg)	na	1001	1008	1042	827	836	852	880
	IRE				IT			
	2002	2003	2004	2005	2002	2003	2004	2005
Pigs Weaned Per Sow Per Year	22.92	22.74	23.13	23.14	19.88	19.53	20.20	20.55
Pigs Sold Per Sow Per year	21.89	21.74	21.84	21.90	19.36	18.79	19.41	19.74
Litters/sow/year(1)	2.30	2.28	2.28	2.28	2.20	2.17	2.15	2.17
Pigs born alive per litter	10.95	11.01	11.16	11.19	10.16	10.31	10.52	10.60
Pre Weaning Mortality	9.0%	9.4%	9.1%	9.3%	11.0%	12.7%	10.7%	10.7%
Rearing Mortality	2.5%	2.3%	3.2%	3.2%	1.6%	3.3%	3.3%	3.3%
Finishing Mortality	2.0%	2.2%	2.4%	2.3%	1.0%	0.5%	0.6%	0.6%
Finishing Daily Liveweight Gain (g/day) 749	743	738	740	620	620	623	625	
Finishing Feed Conversion Ratio	2.70	2.73	2.79	2.74	4.67	4.66	4.67	4.67
Average live weight at slaughter	93.5	94.1	96.5	98.6	164.0	163.0	168.0	163.0
Adjusted carcass weight - Cold	70.8	71.3	73.0	75.1	129.5	128.7	129.7	126.3
Carcass meat production/sow/year (kg) 1550	1550	1594	1645	2510	2418	2517	2493	
Average lean meat percentage	58.3%	58.0%	58.3%	58.9%	47.3%	47.3%	47.0%	47.0%
Lean meat production/sow/year (kg)	904	899	929	969	1187	1143	1183	1172
	NL				SWE			
	2002	2003	2004	2005	2003	2004	2005	
Pigs Weaned Per Sow Per Year	23.46	23.78	24.34	24.52	21.96	22.75	22.91	
Pigs Sold Per Sow Per year	22.14	22.59	23.21	23.36	21.12	21.86	21.95	
Litters/sow/year(1)	2.31	2.31	2.33	2.33	2.19	2.21	2.22	
Pigs born alive per litter	11.50	11.70	11.90	12.00	11.70	12.10	12.10	
Pre Weaning Mortality	11.7%	12.0%	12.2%	12.3%	14.3%	14.8%	14.7%	
Rearing Mortality	2.2%	1.9%	1.8%	1.9%	2.5%	2.5%	2.6%	
Finishing Mortality	3.5%	3.2%	2.9%	2.9%	1.3%	1.4%	1.6%	
Finishing Daily Liveweight Gain (g/day)	762	762	774	779	877	873	874	
Finishing Feed Conversion Ratio	2.67	2.67	2.65	2.66	2.76	2.79	2.79	
Average live weight at slaughter	114.0	115.8	113.0	113.8	115.0	115.8	114.8	
Adjusted carcass weight - Cold	87.2	88.6	87.5	88.1	86.1	86.4	85.7	
Carcass meat production/sow/year (kg)	1929	2001	2031	2058	1819	1889	1881	
Average lean meat percentage	57.3%	56.2%	56.1%	56.2%	57.4%	57.4%	57.5%	
Lean meat production/sow/year (kg)	1105	1124	1140	1157	1044	1084	1082	

## ADJUSTMENTS TO PRICES

Variations in quoted national prices are often not reflected in the net returns received by producers. The reason for this is that deductions from gross prices can vary markedly between countries, with deductions being imposed for differing items. Some countries also pay bonuses to producers. This chapter, which updates information first provided in last year's report, examines the adjustments that need to be made to gross prices in order to get a true picture of national differences in net prices.

### Deductions and bonuses

Table 14 itemises the deductions in the participating countries for which information was provided. These, and the bonus payments shown in the following table, relate to typical adjustments made in 2005.

Table 14 Deductions from pig prices

	AUS £/pig	BEL	DEN	FR	GER
Professional body	0.2	0.0	0.5	0.0	0.0
Promotion	0.5	0.1	0.0	0.0	0.3
Research	0.0	0.0	0.0	0.1	0.0
Animal health	0.0	0.1	0.0	0.0	0.1
Carcase classification	0.3	0.0	0.0	0.3	0.3
Veterinary inspections and testing	0.0	0.0	0.0	0.0	0.3
Transport	0.0	1.0(b)	-0.4	0.0	1.7
Offal disposal	0.5	0.0	0.0	0.0	0.0
Health deductions	0.0	0.0	0.0	0.0	0.0
Carcase disposal (a)	0.0	0.0	0.0	0.0	0.3
Marketing fee	0.0	0.0	0.0	0.0	0.0
Credit insurance	0.2	0.0	0.0	0.1	0.2
Other	0.5	0.0	0.0	0.0	0.0
<b>Total deductions (£/pig)</b>	<b>2.1</b>	<b>1.2</b>	<b>0.1</b>	<b>0.5</b>	<b>3.3</b>
<b>Total deductions (p/kg)</b>	<b>2.3</b>	<b>1.3</b>	<b>0.2</b>	<b>0.6</b>	<b>3.6</b>
	GB £/pig	IT	IRE	NL	SWE
Professional body	0.0	0.0	0.1	0.4	0.0
Promotion	0.6	0.0	0.2	0.1	0.1
Research	0.2	0.0	0.0	0.1	0.1
Animal health	0.0	0.4	0.0	0.1	0.3
Carcase classification	0.4	0.0	0.0	0.2	0.0
Veterinary inspections and testing	0.4	0.0	0.9	0.0	0.0
Transport	1.7	0.0	0.0	0.0	0.0
Offal disposal	0.2	0.0	0.0	0.0	0.0
Health deductions	0.0	0.0	0.0	0.2	0.0
Carcase disposal (a)	0.1	0.0	0.0	0.0	0.2
Marketing fee	0.3	0.0	0.0	0.1	0.0
Credit insurance	0.1	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.2	0.0
<b>Total deductions (£/pig)</b>	<b>4.1</b>	<b>0.5</b>	<b>1.2</b>	<b>1.3</b>	<b>0.7</b>
<b>Total deductions (p/kg)</b>	<b>5.6</b>	<b>0.6</b>	<b>1.6</b>	<b>1.5</b>	<b>0.8</b>

(a) Carcase disposal charge based on a typical condemnation rate of 1.5%, except in Sweden where there is a flat rate charge across all pigs (b) Bonus payment for filling a lorry

The lowest total deductions are 10p/pig in Denmark (net of a transport bonus paid for filling a lorry) and 50p in France and Italy. The highest deductions are £3.90/pig in Germany and £4.10 in Great Britain. When expressed in p/kg, average deductions range from 0.2p in Denmark to 5.6p in Great Britain.

The bonuses payable to producers are analysed in Table 15. Bonuses are not paid in all countries. Producers in Ireland and Italy do not receive any bonuses. The highest bonuses in 2005 were paid in France (£9.80/pig or 11.1p/kg) and Sweden (£7.50/pig or 8.7p/kg). Some bonuses are mainly based on quality standards, eg France, while some are mainly profit-sharing, eg Denmark and Sweden

**Table 15 Additions to quoted pig prices**

	AUS	BEL	DEN	FR	GER
Total bonuses (£/pig)	1.9	2.1	4.9	9.8	1.8
Total bonuses (p/kg)	2.1	2.2	6.2	11.1	1.9
	GB	IT	IRE	NL	SWE
Total bonuses (£/pig)	0.3	2.6	0.0	4.6	7.5
Total bonuses (p/kg)	0.5	3.5	0.0	5.2	8.7

### Towards a level playing field: Reference Prices

This section and the following section examine the impact of adjustments on two price series. These are: pig meat reference prices, and nationally quoted prices

The deductions and bonuses already discussed will apply to both price series, except for France. But in the case of nationally quoted prices there is also an adjustment for quality differences, represented by lean meat percentage. This adjustment is not relevant to the reference prices, as they all relate to a similar lean meat percentage (Grade E, which is 55-59%). However, the proportion of pigs falling into Grade E varies significantly, accounting for 10 per cent of British pigs but around 40% of German pigs.

Table 16 summarises the impact of the bonuses and deductions on reference prices.

The aggregate impacts of these adjustments are also shown in Figure 13. The most marked adjustments are in Denmark and Sweden. Due to the bonuses paid to producers in these countries on top of the normal per kg price, their adjusted prices are all significantly higher than the unadjusted price.

The French reference price, unlike any of the other reference prices is net of bonuses and deductions for pig characteristics - lean meat, weight, and other quality bonuses like traceability or Label Rouge. In Table 16 there are therefore no bonuses /deductions applied to the French Reference Price. But they will apply to the French national quotation (MPB 54TVM) shown in table 17.

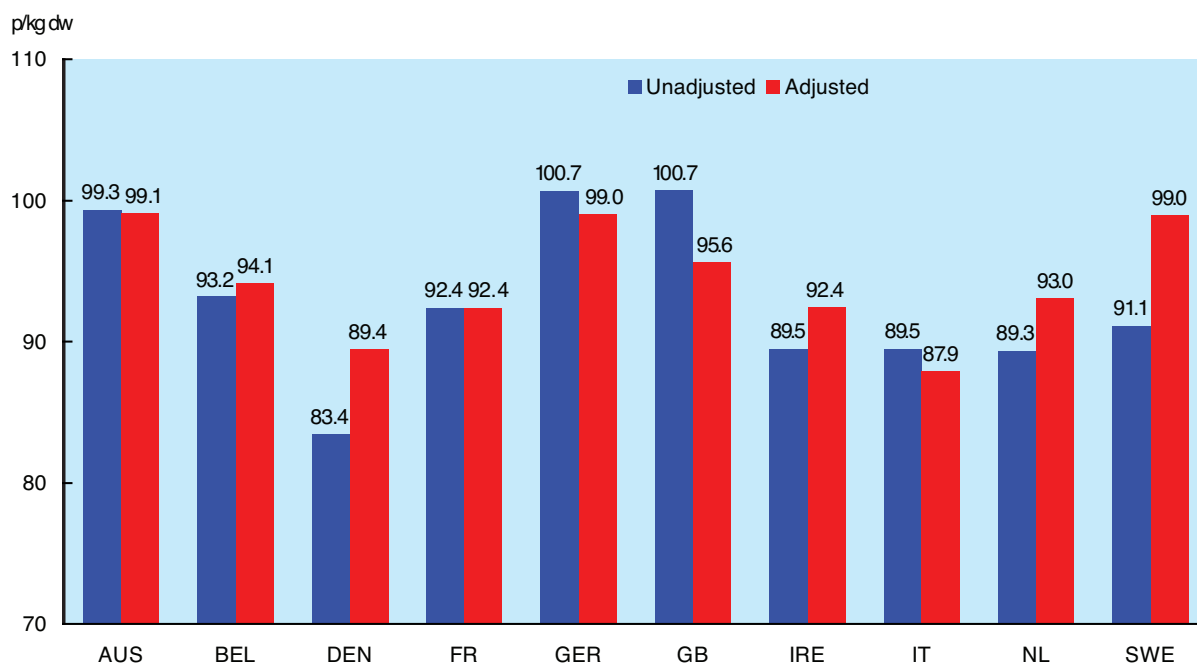
There was a negative adjustment to the British price, which fell from 100.7p/kg to 95.6p. Before adjustment Britain had, together with Germany, the highest price in the participating countries, and was 8 per cent above the overall average. However, on an adjusted basis, the British price was just one per cent above the average.

**Table 16 Adjustments to Reference Prices**

	AUS p/kg	BEL	DEN	FR	GER
Reference prices (2005 average)	99.3	93.2	83.4	92.4	100.7
Adjustments for bonuses/deductions					
Bonuses	+2.1	+2.2	+6.2	0.0	+1.9
Deductions	-2.3	-1.3	-0.2	0.0	-3.6
Adjusted price	99.1	94.1	89.4	92.4	99.0
	GB	IT	IRE	NL	SWE
Reference prices (2005 average)	100.7	89.5	89.5	89.3	91.1
Adjustments for bonuses/deductions					
Bonuses	+0.5	+3.5	0.0	+5.2	+8.7
Deductions	-5.6	-0.6	-1.6	-1.5	-0.8
Adjusted price	95.6	92.4	87.9	93.0	99.0

It is interesting to compare unadjusted and adjusted prices with Denmark and the Netherlands, the two main suppliers to the British market. Before adjustment, British prices were 11.4p higher than in the Netherlands and 17.3p higher than in Denmark while, after adjustment, they were 2.6p higher than in the Netherlands and 6.2p higher than in Denmark

**Figure 14 Adjusted pig prices**



## Towards a level playing field: national price series

Some, but not all, EU countries also publish national price series, which can differ from the Reference Price. All of these, with the exception of the Great Britain DAPP, are published in the MLCs "European Market Survey". The specifications of the pigs can vary significantly between countries, which make it difficult to compare them.

**Table17 Adjusting national price quotations for bonuses, deductions and quality**

	AUS p/kg	BEL	DEN	FR	GER
National price ( /kg) (a)	1.42	1.57	1.22	1.17	1.45
National price (p/kg) (a)	95.7	106.1	82.5	79.3	97.7
Adjustments for bonuses/deductions					
Bonuses	+2.1	+2.2	+6.2	+11.1	+1.9
Deductions	+2.3	+1.3	+0.2	+0.6	+3.6
Adjusted price	95.5	107.1	88.4	89.8	96.0
Hot weight: cold weight adjustment					
Adjustment	1.9		1.6		2.0
Adjusted price	97.4		90.2		98.0
Adjustments for lean meat %					
Ave lean meat %		62.0%	60.3%	54.0%	
Base %		57.5%	57.5%	57.5%	
Price adjustment to 57.5%		-7.8	-4.1	5.8	
Adjusted price	97.4	99.3	86.0	89.8	98.0
	GB	IRE	IT	NL	SWE
National price ( /kg) (a)	1.59	1.45	1.25	1.31	1.50
National price (p/kg) (a)	107.4	97.8	84.5	88.6	101.3
Adjustments for bonuses/deductions					
Bonuses	+0.5	0.0	+3.5	+5.2	+8.7
Deductions	-5.6	-1.6	-0.6	-1.5	-0.8
Adjusted price	102.3	96.2	87.4	92.3	109.2
Hot weight: cold weight adjustment					
Adjustment				1.8	
Adjusted price				94.1	
Adjustments for lean meat %					
Ave lean meat %	61.1%		47.0%	56.2%	
Base %	57.5%		57.5%	57.5%	
Price adjustment to 57.5%	-6.0		19.5	2.1	
Adjusted price	96.3	96.2	107.0	96.3	109.2

(a) Week ended 19 November 2006

Sources: Austria, Ireland, Germany and Sweden = Grade E, France = MPB 54%

GB = DAPP, Netherlands = Vio Food Group Pigs A, Denmark = bacon pigs

Italy = national average pig price, Belgium = Pigs group 1 at Anderlecht

In the case of nationally quoted prices, variations in bonuses and deductions are not the only distortions that need to be taken into account in order to get a true picture of variations in net prices. There are also quality differences, represented by lean meat percentage. Some of the national prices relate to Grade E, so no further adjustment has been made. But those prices that are not Grade E have been adjusted to a 57.5 per cent equivalent (57.5% is the mid-point of Grade E). By far the most significant adjustment for lean meat percentage is to prices in Italy, where the average lean meat percentage is only 47%.

The average lean meat percentage for Great Britain has been revised up as a result of a change in the formula used to estimate it. Consequently the negative lean meat adjustment in this report is more than the adjustment in the previous report.

One further adjustment has to be made to the Austrian, Danish, Dutch and German prices. These are paid to producers on a hot weight basis, and will therefore need to be converted to a cold weight basis to make them comparable with the other prices. Price per kg cold weight is two per cent higher than price per kg hot weight.

BPEX is currently heading an initiative to make EU price comparisons more commercially meaningful by making adjustments for the factors described in this section.



## INTERPRETING THE RESULTS FOR GREAT BRITAIN

### Comparison of GB results with EU average

Table 18 shows 2005 Great Britain and overall average (excluding Italy) comparisons of physical results. These indicate the areas where British performance falls short of the EU average, thus contributing to relatively high costs of production. They are therefore the potential areas that we should pay particular attention to in order to improve our relative performance. The table also shows improvement/deterioration in these performance measures compared with 2004.

**Table 18 GB and EU physical results**

	GB	EU (a)	GB deviation(%) (b)	
			2005	2004
Pigs Weaned Per Sow Per Year	21.5	23.0	-6	-7
Pigs Sold Per Sow Per year	19.4	21.6	-10	-11
Litters/sow/year(1)	2.2	2.3	-2	-4
Pigs born alive per litter	10.9	11.6	-7	-5
Sow mortality	4.7%	6.1%		
Pre Weaning Mortality	10.9%	12.6%	+13	+14
Rearing Mortality	3.4%	3.1%	-11	-50
Finishing Mortality	6.5%	3.7%	-75	-54
Transfer weight from breeding to rearing unit (kg)	6.4	7.5		
Age of weaning (days)	26.0	28.0		
Transfer weight from rearing to finishing unit (kg)	36.3	30.4		
Rearing Daily Liveweight Gain (g/day)	509	419	+21	+10
Rearing Feed Conversion Ratio	1.70	1.80	+5	-3
Finishing Daily Liveweight Gain (g/day)	639	747	-14	-16
Finishing Feed Conversion Ratio	2.74	2.82	+3	+4
Ave number of days in rearing unit	58.7	54.3		
Ave number of days in finishing unit	94.8	108.5		
Pigs per pig place per year (finishing)	3.58	3.25	+10	+6
Average live weight at slaughter	96.9	110.6	-12	-10
Adjusted carcass weight - Cold	74.2	85.1	-13	-12
Killing out percentage	76.6%	76.9%	-0	-2
Carcass meat production per sow per year (kg)	1441	1837	-22	-22
Average lean meat percentage	61.1%	59.2%	+3	+1
Lean meat production per sow per year (kg)	880	1087	-19	-21
Sow feed (kg) per sow per year	1339	1235	-8	-9
Weaner/Rearer feed (kg) per pig	51	41	-24	-27
Finishing pigs feed consumption (kg) per pig	166	(c)	225	+26
Time usage per sow per year in hours (d)	19.20	15.40	-25	-9
Time usage per finished pig per year in hours (e)	0.17	0.30	+44	+57

(a) Excluding Italy

(b) Where the production factor makes a definite contribution to costs, a -ve implies higher costs and a +ve implies lower costs

(c) Feed consumption is lower because pigs are finished at lighter weights

(d) Breeding herd (e) Rearing/finishing herds

Using the overall results as a benchmark, there are a number of areas where Great Britain saw small relative improvements in 2005, including:

- Pigs weaned/sow, pigs sold/sow and litters/year all remain below the EU average, but this differential has fallen
- Rearing mortality showed a marked decline in 2005 and is now only slightly above the overall average.
- Mortality in finishing systems remains well above the average, although it did improve slightly in 2005.
- Rearing daily liveweight gain improved by 60g in 2005 and is now 21 per cent above the average.
- Rearing feed conversion ratio also improved, and has moved from being three per cent poorer than the average to being five per cent better.
- Finishing daily liveweight gain improved slightly in 2005. Although it remains below the average, the difference has fallen.

### Impact on costs of improving performance

The following table shows the impact on production costs of improvements in key variables where GB performance is currently below the EU average. It shows the effect on average production costs if performance improves to the EU average. Each of the variables is examined in turn, with the other variables held constant.

**Table 19 Impact of changes in performance on production costs (a)**

	GB	EU ave	Cost change p/kg
Born alive per litter	10.9	11.6	-1.8
Litters/sow/year	2.22	2.26	-0.7
DLWG (Finishing Herds)(g)	639	747	-1.1
Post-weaning mortality (%)	9.7	6.7	-1.0
KO%	76.6	76.9	-0.4
Increase weight at slaughter (kg lw)	96.9	110.6	-2.4
<b>Total of above</b>			<b>-7.3</b>

(a) Based on improving GB performance figures to the EU average

Improvements in GB performance up to the European average in each of these variables will trim up to 2.4p/kg off the average cost of producing a pig. If there were a simultaneous improvement in each of the variables, the costs of production would be reduced by 7p/kg. This would reduce the cash costs of production from 87p/kg to 80p.

In practical terms there could be constraints on increasing the average weight at slaughter by 14kg lw, due to the implications for housing and contract specifications. However, offsetting this, the fact that British pigs are significantly lighter than the EU average means that producers should be aiming for a daily liveweight gain of more than the average of 747 grams.

## MANAGING FEED COSTS

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2005 was a fairly benign year for pig producers in terms of feed costs. But since the summer of 2006 the situation has changed again, with cereal prices rising strongly throughout Europe. Feed costs in 2006 will therefore almost certainly be higher than in the previous year although, because of the contractual nature of most feed purchases, the major impact on pig costs is likely to be in 2007.

This chapter examines the reasons behind the higher prices, discusses the outlook for the remainder of the current season and examines the impact of this on pig producers' costs of production. It also looks at strategies that producers can adopt to minimise their exposure to higher prices.

### Causes of the increase in prices

The dominating feature of the UK, world and European grain market in the 2006/07 season has been tight supplies, mainly due to the hot weather that affected most parts of Europe in the summer which influenced this year's EU yields and crop production. Price movements in some of the main markets are shown in Appendix 2.

Total cereal production in the EU-25 is now expected to be about four per cent less than in 2005/06, when drought also affected yields - especially in South west Europe. However, average yields will still be about 7% higher than in 2003, the last very hot year. Germany, Poland, the UK, France and Italy are identified by the European Commission as the countries most affected by this year's drought.

Tight supplies and low world stocks are having an effect on cereal prices. It means that the EU is running at significant premiums to the world market prices. There is also the potential for stocks to fall to historically low levels. There are supplies of cheaper wheat available from the US and the Black Sea, but both are limited. The Black Sea market is continuing to rise. In the United States there is cheap soft wheat but the hard wheat market is at significant premiums.

In addition there is growing demand in other areas of the world, for example in India, which is seeking to import significant quantities of wheat. It was reported in September by the news agencies that India has bought 1.7m tonnes of wheat, 550,000 tonnes of it from Australia.

### Future trends

Weather concerns in Australia and uncertainty about Argentina's crop, mean that it is difficult to see any respite from the undersupplied market happening in the second half of the current season. Drought has caused the Australian Wheat Board to cut crop estimates to 12-13m tonnes, around half the normal crop of 23-24m tonnes, while Argentina's yield dropped 1.5m tonnes to 13m.

Consequently the futures markets are predicting further increases in prices through to the middle of 2007. The futures price for delivered wheat on the UK's LIFFE market in July 2007 broke through the £100 barrier in early October. At £105 on 5 October, the futures price was 32 per cent up on the July 2006 price. Market prices, on present evidence, are not expected to reach the heights of the 2003/04 season (peaking at £114/tonne in December 2003) but analysts warn that markets are liable to be very volatile over the next few months.

Oilseed prices are relatively flat, with a good United States harvest, and are considerably lower than they were in 2003/04. The futures markets indicate little change over the next year. However other protein prices, eg fishmeal, have shown increases compared with last year.

### The long-term impact of biofuels

Another factor which is beginning to have a more significant impact on world grain prices is the growth in biofuels, which are being promoted by governments around the world as a sustainable energy source. The downside of this is that as they compete with animals and humans for feed, prices will be driven up. According to the FAO, the conversion of maize to ethanol was a primary reason for a sharp decline in world grain stocks and a commensurate rise in grain prices in the first half of 2006.

In the United Kingdom a biofuel plant is currently under construction in north east England which will use about one three quarters of a million tonnes of wheat a year, and other plants are will almost certainly be built over the next few years. Consequently, even though there will be a diversion of feed sales from the export market to the domestic market, biofuels can be expected to contribute to higher feed costs in the longer term unless there is a significant increase in the crop area. Increasing imports are unlikely to be the answer to the problem as biofuel plants will also be using increasing amounts of feed in other countries and there will also be increasing import demand from countries such as China and India.

It will therefore become increasingly important for producers to adopt strategies that minimise their feed costs. Looking at ways to reduce the quantities of feed per pig from improving daily liveweight gains and feed conversion ratios can hold down feed costs. But from the point of view of forward planning it is also important that producers reduce their exposure to fluctuations in feed costs.

The BPEX website contains a simple calculator which shows how average production costs change as a result of higher cereal prices. This can be found at:

<http://www.bpex.org/technical/general/pdf/FeedCalculator.xls>

### **Minimising exposure to feed price fluctuations**

Feed costs represent roughly 70 per cent of the variable costs of producing a pig, and 50 per cent of total costs. Consequently fluctuations in feed prices will have a greater potential impact on production costs and on profitability than any other single factor.

It is clearly to the advantage of the pig producer to minimise the variation in future feed costs. This is essentially done by “locking in” prices. Although future prices may be locked in at higher than current prices, this should be more than outweighed by the knowledge of what your future feed costs are going to be. This knowledge is essential to successful business planning.

“Locking in “ prices involve paying for future supplies in some way There are several methods of doing this:

#### **For straight feedingstuffs**

- Buy all feed requirements forward at today's prices
- Buy all forward with a “put” option. The put option (which has a cost) means that you have the option to buy the contracted feed in the specified delivery month. So if spot prices had declined below the forward price by the delivery month you would not exercise the call option but would be able to take advantage of the lower spot prices.
- Buy half forward and buy half on the spot market when required
- Buy on the futures market (although these don't exist for all commodities). Futures markets do not usually involve physical delivery, as an offsetting Sell contract will be taken out near the delivery month. Gains/losses on the physical market should be offset by losses/gains on the futures market.

#### **For compound feeds**

- **Buy all forward**

For more information on hedging options in the cereals markets contact the Home Grown Cereals Authority.

It is impossible to eliminate risk entirely, of course. The producer will have to make a judgement on how far forward to buy. During a period of low prices it would probably be a sensible decision to buy forward for a year. When prices are high, as at present, shorter-term contracts might be the right decision to make. But this assumes that next year's harvest will be better than this year's harvest....

## APPENDIX I

### European Pig Industry Trends in 2005

	AUS	BEL	DEN	FR	UK	GER	IRE	IT	NL	POL	SP	SWE
Breeding sow numbers (000 head)	308	592	1,340	1,284	505	2,504	174	697	1,161	1,808	2,593	192
Annual pig slaughterings (000 head)	5,340	11,061	22,109	25,683	9,148	48,225	2,648	13,010	14,377	22,665	37,616	3,160
Pig meat production (000 tonnes)	509	1,024	1,793	2,275	706	4,499	205	1,515	1,297	1,923	3,164	275
Pig meat imports (000 tonnes cwe)*	87	104	51	515	910	1,139	51	864	218		89	67
Pig meat exports (000 tonnes cwe)*	137	635	1,494	606	123	788	127	147	811		664	32
Pig meat consumption (000 tonnes cwe)*	460	493	350	2,184	1,491	4,850	130	2,232	704	1,877	2,589	310
Pig meat consumption (kg/head)*	56.6	47.5	65.0	36.0	24.9	58.7	32.1	39.0	43.2	0.6	62.8	34.8

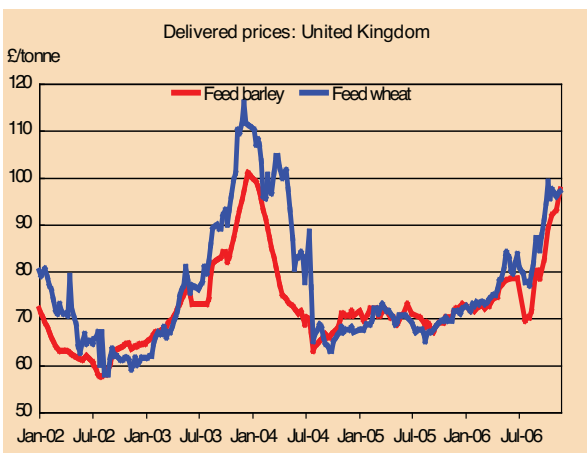
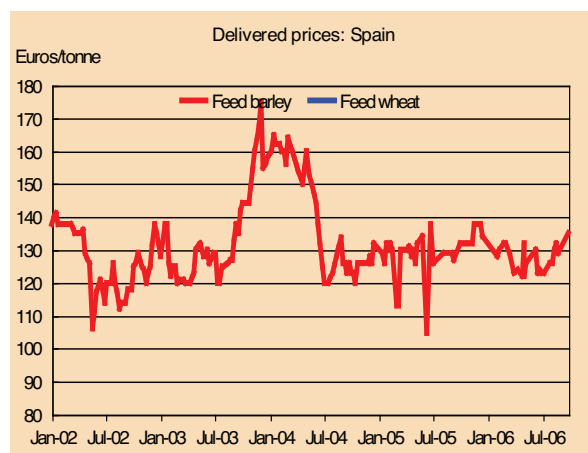
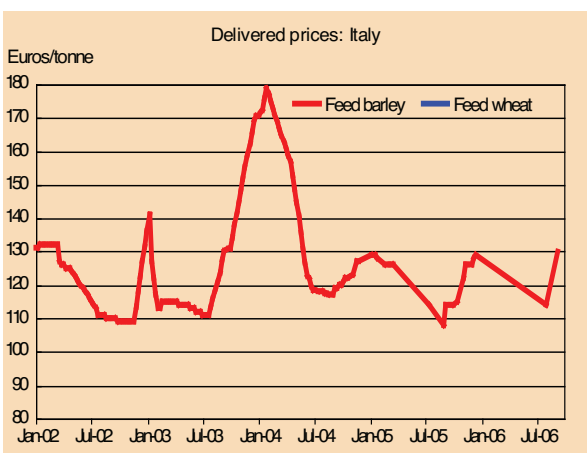
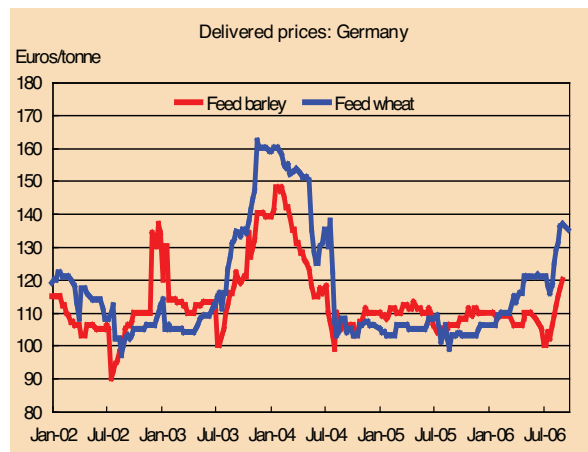
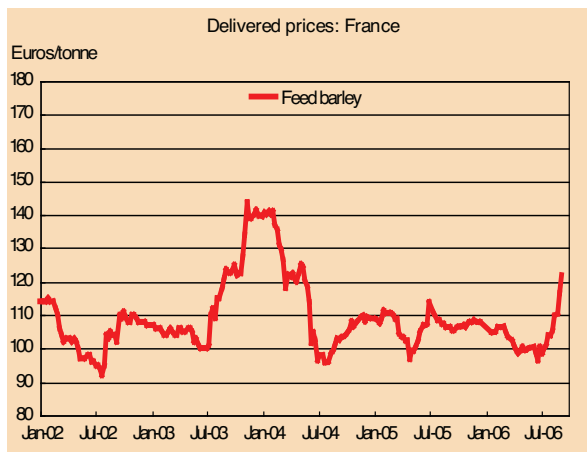
\* Estimated figures for 2005

All figures are subject to revision

Source: MLC, Eurostat

# APPENDIX II

## European Feed Price Trends



## APPENDIX III

### National carcass dressing specifications

country	Presentation of the carcass	payment
Denmark	with head and feet, without flare fat, kidneys and trimmings	hot
Belgium	without head and feet, without flare fat, kidneys and trimmings	hot -2%
France	with head (including eyes, ear and tongue), with hooves and tail, without kidneys, diaphragm and flare fat	cold
Netherlands	with the head and the feet (without nails), without flarefat, kidneys and trimmings	hot
UK	with head, feet and tail but without flare fat, kidneys and diaphragm	cold
CZ	with the head, flare fat, skin, without brain, kidneys and organs in breast, abdomen and pelvic cavity	hot
Germany	without reproductive organs, tongue, spinal cord, lard, kidneys, diaphragm, brain, and the organs of thoracic cavity and abdominal cavity	hot
Sweden	with the head, feet and tail. No intestines of any kind. No flare fat.	cold
Ireland	REMOVED : Oesophagus, stomach, intestines, spleen, bladder, heart, liver, lungs, testicles, hair, neck glands, fatty tissue, blood, flare fat, kidneys and diaphragm	cold
Austria	without reproductive organs, tongue, spinal cord, lard, kidneys, diaphragm, brain, and the organs of thoracic cavity and abdominal cavity, with the head and the feet (without nails)	hot



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