

Competitiveness of Livestock Production in the Process of Joining the EU

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SUMMARY

The accession of the eight CEE member states to the EU will integrate about 450 million consumers with rather similar consumption patterns for animal products. Both the old and the new EU members produce surpluses, but in ruminant meat production the EU will become a net importer. As the EU will be forced to reduce import barriers from the World market, price levels will decline, but probably be higher for ruminant production than currently in the accession countries. For pigs and poultry, feeds are assumed to be available at World market prices. Because of higher productivity, western European producers will be very competitive and competition will be strong.

Labour saving investments into farm structures and productivity increases in all forms of animal production are urgently required, in order to reach competitiveness. Advances in productivity observed during recent years make such a development likely. To improve the competitiveness further, a certain concentration of production enterprises and processing facilities must be achieved, but over-concentration must be avoided for reasons of environmental protection.

The sensitivity of consumers obliges all members of the food chain to develop and operate process management and control schemes, especially those who want to export food.

KEY WORDS

EU, livestock production, CEE countries

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INTRODUCTION

The imminent accession of eight Central and East European (CEE) countries to the European Union (EU) is the second great political and economic challenge within less than half a generation, because the collapse of communism happened less than 15 years ago. The structural and economic changes have not yet had a chance to stabilise, but the peoples of the CEE countries aspire to rapid EU entry. In addition, seven other countries in south-eastern Europe are waiting to become members.

The EU-enlargement in 2004 will add 0.73 million square km (23 %) to the surface area, increase the human population by 74 million (20 %) and add 9 % to the Gross Domestic Product of the Community. The GDP per caput in the accession countries stands at 44 % of that of the present EU. Agriculture contributes 2.5 and 4.0 % to GDP, and employs 4.3 and 13.4 % of the labour force in the EU and CEE accession countries, respectively (Table 1). Land utilisation in the accession countries lays greater emphasis on crop rather than on pasture production, as borne out by the addition of 38 % to the EU crop land and only 19 % to its pastures.

Further accessions, of Bulgaria and Romania as officially recognised candidates, and of Albania, Bosnia-Herzegovina, Croatia, Macedonia and Serbia-Montenegro as countries with no realistic alternative, are pending. Together, these seven countries would add a further 0.6 million square km (19 %) and 55 million people (15 %) to the EU (Table 2), eventually bringing the total population of this largest consumer market on earth to some 506 million people.

NEW DIMENSIONS FOR PRODUCTS OF ANIMAL ORIGIN

Animal production in the accession countries has similar importance as in the existing EU, with equivalent production of milk, pork, poultry meat and eggs in relation to the human population. Only the production of mutton and goat and of beef and veal are of lesser significance (Table 3). But the future market in the EU will be five to ten times as large as the market of the eight accession countries combined. Comparisons between the numbers of cattle and pigs with the respective meat production, and of the milk yields per cow indicate that the productivity per animal in the accession countries is about three quarters of that of the EU average. But some accession countries have higher productivity in their livestock than many existing EU member states, for example, Slovenia in beef, Hungary in pork and the Czech Republic, Hungary and Estonia in the milk yield per cow. In 2001, the dairy cows of the Czech Republic were averaging more than those of eight EU member states including France, and the dairy cows of Hungary were ahead of seven EU member states. Rapid productivity increases during recent years raise expectations that productivity gaps in relation to the EU will be reduced significantly.

In the remaining seven countries aspiring for EU membership, all of them from south-eastern Europe, livestock production plays a much lesser role and livestock productivity is much lower than in the current accession countries (Table 4). But these countries have important flocks of about 16 million sheep and 3 million goats which may help to reduce the EU deficit in the future.

Table 1. Impact of EU accession of 8 CEE countries on EU-area, population and incomes

	EU	CEE	Accession countries, % of EU 15
Member States	15	8	
Area, Mill km ²	3.2	0.7	23
Arable Land, mill. ha	73.7	29.1	39
pastures, mill. ha	46.7	8.6	18
Human population, mill.	377.0	73.8	20
GDP ¹⁾ , bill. €	8.523	731	9
GDP ¹⁾ per caput, €	22.500	9.900	(44)
share of agriculture in GDP ¹⁾ , %	2.5	4.0	
share of agriculture in employment, %	4.3	13.7	

¹⁾ gross domestic product; Sources: ZMP (2002 b and d)

Table 2. Impact of accessions to the EU after 2004 on area and population

	Group countries ¹⁾	Group countries ²⁾	Total	% of EU (15)
No of countries	2	5	7	
Area, mill km ²	34.9	26.4	61.3	19
Human population, mill	30.5	24.5	55.0	15

¹⁾ Bulgaria, Romania: accession agreed; ²⁾ Albania, Bosnia-Herzegovina, Croatia, Macedonia, Serbia-Montenegro: accession to be negotiated; Source: ZMP (2002 d)

Table 3. Impact of EU Accession of 8 CEE Countries in 2004 on Animal Numbers and Production

	EU	CEE	Accession countries, % of EU 15
1. Animal Numbers (2001)			
cattle	82.8	10.6	13
dairy cows	20.0	4.8	24
pigs	122.2	29.2	24
sheep	91.1	2.1	2
goats	11.7	0.4	3
2. Productivity (2001)			
milk yield per cow, kg	6.000	4.304	72
3. Production (2001)			
Meat, mill t	38.208	5.713	15
- beef and veal	7.376	707	10
- pork	17.377	3.263	19
- mutton, lamb and goat	1.024	22	2
- poultry meat	9.110	1.663	18
Eggs, mill.	90.406 ¹⁾	18.429	20
Cow milk, mill. t	122.4	21.9	18

¹⁾ Extrapolated from 2000 ; Sources: ZMP (2002, b, c, d, e)

Table 4. Impact of further possible Accessions to the EU after 2004 on Animal Numbers and Production

	Group 1 countries	Group 2 countries	Total	% of EU (15)
Meat, mill t	1.705	988	2.693	7
- beef and veal	239	232	471	6
- pork	877	485	1.362	8
- poultry meat	395	171	566	6
Eggs	6.699	3.358	10.057	11
Cow milk	6.347	3.568	10.215	8

Source: ZMP (2002 d)

Table 5. Per caput Consumption of Animal Products in EU and CEE Accession Countries

Meat, kg	EU	CEE	CEE % of EU
- Beef and veal, kg	17.5	10.0	57
- Pork	42.0	40.3	96
- Poultry meat	21.3	19.8	93
Eggs, No	218	204	96
Milk Equivalent, kg	281	277	99

Sources: ZMP (2002, a, c, e)

In the accession countries, consumption levels of animal products are surprisingly similar to those of the people in the EU (Table 5), while in the other seven countries, per caput consumption of animal products is lower.

Although the consumption level of animal products is high in relation to income levels, the accession countries are surplus producers for all important animal products considered, just like the existing EU (Table 6). However, for 2003 the EU predicts not only net imports of mutton and lamb, but also of beef and veal (EU-Commission, 2003). Poland produces large surpluses for all products reviewed, Hungary for poultry and pigs, Slovenia for milk, poultry and beef, Slovakia for milk and beef, and Lithuania, Estonia and Estonia for milk. Deficits exist for beef in Latvia, Hungary and to a lesser extent Estonia

Table 6. Self sufficiency levels in the EU (15) and the CEE Accession Countries

Meat	EU	Accession countries
Beef and veal	104	105
Pork	109	109
Poultry meat	107	106
Eggs	102	109
Cow milk	108	108

Sources: ZMP (2002 a, c, e)

and the Czech Republic, for pork and poultry in the Baltic states and Slovakia, for pork in Slovenia, and for poultry meat in the Czech Republic (Table 8). The remaining countries in south-eastern Europe are all net importers of animal products, although in small quantities.

Within the EU, the main exporters of animal products are Belgium, Denmark, the Netherlands, Ireland and France (Table 7), with Italy, the UK, Germany and Greece as the main import markets (Table 9).

CHANGING PRODUCTION ENVIRONMENT

Farm support

The Common Agricultural Policy (CAP) of the EU was introduced during the nineteen sixties for reasons of food security and income stabilisation for agricultural

Table 7. Surplus and Deficit Countries for Animal Products in the EU¹⁾ 2001

Product	Surplus	Deficit
Beef and Veal	Ireland, Germany, Austria, Belgium, Spain, France, Denmark, Netherlands	Greece, Portugal, UK, Italy, Sweden, Finland
Pork	Denmark, Netherlands, Belgium, Ireland, Spain	Greece, UK, Italy, Portugal, Sweden, Germany
Poultry Meat	Denmark, Ireland, Netherlands, Belgium, France, Spain, Finland	Greece, UK, Portugal, Italy, Sweden, Germany
Eggs	Netherlands, Belgium, Finland, Spain	Germany, Ireland, Denmark, UK, Sweden, Italy, Greece
Milk	Ireland, Netherlands, Denmark, Finland, Austria, Portugal	Italy, Greece, UK, Spain

¹⁾ Self-sufficiency of 98 – 102 % regarded as neutral; Source: ZMP (2002 a, c, e)

Table 8. Surplus and Deficit Accession Countries for Animal Products¹⁾, 2001

Product	Surplus	Deficit
Beef and veal	Poland, Slovenia, Slovakia	Latvia, Hungary, Estonia, Czech Republic
Pork	Poland, Hungary	Latvia, Estonia, Lithuania, Slovenia, Slovakia
Poultry meat	Hungary, Poland	Estonia, Latvia, Lithuania, Slovakia, Czech Republic
Eggs ²⁾	Slovenia, Hungary, Poland	
Milk	Lithuania, Estonia, Slovenia	

¹⁾ Self-sufficiency of 98 – 102 % regarded as neutral; ²⁾ Only 4 Countries recorded; Source: ZMP (2002, a, c, e)

producers. When self sufficiency was reached during the nineteen eighties, the support levels were reduced in several steps. This included the introduction of milk quotas in 1984, the gradual replacement of market interventions by animal premiums in 1992 and 2000, and is being continued under the term “modulation” in the current discussion about decoupling production and EU support. At an average “Producer Support Equivalent” (PSE) of 36 % in 2000-2002 (OECD, 2003), support levels for ruminant production were in the order of 60 %, but for concentrate-based livestock species such as pigs and poultry only around 20 %. But the current EU support levels are unlikely to stay. It has already been

decided in the Agenda 2000 that the support levels for milk will be reduced by 15 % between 2006 and 2008, and other reductions are expected. On the other hand, it is unlikely that EU producer support will be completely abolished. Animal producers may thus expect higher price levels than in the World market. It is also likely that some form of milk quota and premium scheme for cattle and sheep and goats will stay.

But also the governments of the accession states are financing support programmes for their farmers. At general support levels of 24 % in Hungary, 23 % in the Czech Republic, 20 % in Slovakia and 14 % in Poland, which is close to US support levels (OECD

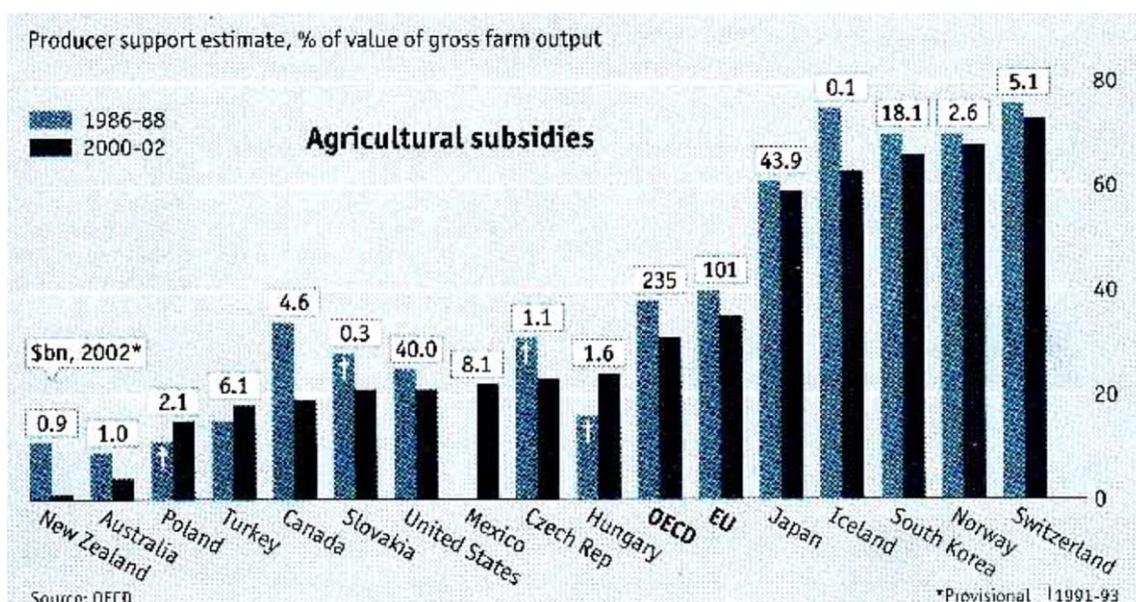


Figure 1.

Table 9. Future Target Countries for Exporters of Animal Products in the EU

Beef	Italy, UK, Greece
Pork	Italy, UK, Germany, Greece
Poultry meat	Germany, UK, Greece
Mutton and goat	Germany, Italy, Greece
Eggs	Germany, Italy, France, UK
Milk	Italy, UK, Greece

Source: ZMP (2002, a, c, e)

2003 and Figure 1), so the incremental producer benefits from EU support may be somewhat less than expected, once the CAP is fully adopted. In the seven remaining countries in south-eastern Europe animal producers will only benefit from support programmes if financed by their national Governments. Looking at the producer milk prices paid in 2002 in the accession countries, producers in the Baltic states, Poland, Slovakia and the Czech Republic are likely to benefit more from EU entry than Hungary, Slovenia or even Croatia.

Farmer obligations

Strict EU or national rules on animal welfare, the use of feed additives, drugs and medicines, and environmental and nature protection infringe upon the freedom of EU farmers to take their own decisions. For example, the Netherlands are reducing livestock densities, in order to protect their environment, and also in the other member states there are environmental limits to expansion. In addition, producer incentives are being given for extensive land use. Although the accession states will have to follow EU rules, they are less densely settled than western Europe, and they can, therefore, adopt these rules more easily than most of the existing EU member states.

Impact from the World Market

Financial constraints of the EU, the disappearance of the accession countries behind EU boundaries and pressures from the WTO will lead to freer access of agricultural goods from the World market into the EU. The impact is mainly expected in ruminant meat production, because current price levels are significantly above World market levels. Moving into a deficit position for beef and veal is, therefore, a realistic and welcome development. For milk, only limited quantities are available at World market prices reflecting production costs of the exporting countries from the southern hemisphere, while the USA and the EU, the other two important suppliers, administer their milk markets at similar and much higher support levels (ZMP 2002 c). Despite heavy global pressure to abolish it, it is expected that within the EU the milk quota will stay. For pigs and poultry,

no impact is to be expected from the World market, once the political goal of scaling grain prices down to World market levels has been achieved. But internal consumption of pork and poultry meat is expected to rise and production is expected to expand even faster leading to export surpluses for export. The volatility of the exchange rate between the Dollar and the Euro may cause disruptions in trade flows. For example, the Euro has gained 25 % against the Dollar during the last two and a half years making products offered in Dollars relatively cheaper (The Economist, 2003). But overall, the Euro zone should bring more stability to producers and consumers.

FACTORS INFLUENCING COMPETITIVENESS

Natural conditions

Climate and soils are the main factors influencing the feed production potential and the housing requirements for farm animals. Compared to the forage production potential at the North Sea and Atlantic coasts, all accession countries have disadvantages, but they have advantages over the Mediterranean with its long, warm and dry summers. Considering their high percentage of arable land, the accession countries have good possibilities to grow feed, especially grain maize in the southern part of the region. The housing facilities in the Baltic countries and in the hill and mountain areas of other accession states must be more solid than in most countries of the EU, and in the long term, they may be more expensive. However, in the plains, housing costs would be lower than in the EU for some time because of cheaper labour costs and building materials.

Geographic location

Slovenia, Hungary and the Czech Republic have geographical advantages for export because of their vicinity to some of the main markets: Italy, Germany and Greece. Poland and Slovakia are better placed than the Baltic states, but the latter are better located in relation to Sweden and Finland and to Russia as future export markets. In contrast, the location and expected purchasing power of the population centres Prague, Budapest and Warsaw and other CEE centres may be attractive to EU producers.

Farm structures and labour

Labour productivity is one of the most important criteria for competitive animal agriculture. This is a trend observed in the USA, New Zealand, but also in the EU. As examples, the average size of dairy farms in the USA increased from 60 to 99 cows (+65 %) from 1994 to 2002 and over 70 % of cows were kept in farms with more than 100 cows. Only some casual labour had to be employed additionally to achieve this. During the same eight year period, the number of dairy farms declined by 41 % (NASS, 2003). In New

Zealand, the size of an average dairy herd was about 270 cows in 2002 and is expected to grow to more than 300 cows soon, reflecting the labour capacity of a family farm. Dairy farms in former West Germany with traditionally small units have a growth threshold above 60 cows (ADR, 2002).

The development towards larger pig units appears to move even faster, especially in Ireland, the UK, Denmark, the Netherlands, Belgium and Italy (ZMP, 2002 e), mainly because of more efficient feeding technology. In contrast, the concentration in poultry meat production has happened some years ago.

The higher the owner's own capital assets, the more stable the enterprise. The accession countries are at a disadvantage in this respect, because they did not have the opportunity to build up capital, but the investments are necessary, and with borrowed capital they are expensive.

Animal Productivity

The feed conversion ratio is the most important criteria for the competitiveness of poultry and pigs. In contrast, the productivity per animal is of relatively greater importance in animal species with high labour and housing costs such as dairy cattle. As pointed out above, current productivity levels of animals in the accession countries are only about 75 % of those of the EU. They will have to be improved to become competitive. Recent productivity advances and the fact that leading CEE producers have already reached this goal, give hope for optimism. The EU-Commission has just predicted that the "old" EU member states will succeed in placing up to 300,000 tons of pork and large quantities of poultry meat in accession countries until 2010, thus making the accession countries net importers of pork and reducing their surplus of poultry meat (EU-Commission, 2003). Both the introduction of new technologies and continuous improvements such as genetic progress must be employed to catch up. In addition, differential genetic progress in feed conversion between species will lead to differential reduction of costs and prices, and thus change the competitiveness of species. Up to now, this has mainly worked to the benefit of poultry meat.

Concentration and contract production

The increasing share of discounters in the retail market calls for an adequate response in animal production and food processing. Enough "critical mass" of a product has to be assembled in one area, in order to reduce the input supply, processing and product marketing costs. Assurances have to be given to producers and processors through contracts. This gives the intensive animal production zones of Denmark, the Netherlands, Belgium and north-western Germany a strong market position, however,

concentration becomes self-defeating when it collides with environmental rules, as has happened in the Netherlands. A happy medium between the two extremes must be struck in the accession countries.

Controlled production

Consumers in the EU have become sensitive to food health and hygiene but also to the production methods. It is therefore essential that production methods are made transparent to the consumer, that the set standards are strictly observed, and that the whole food chain is controlled. Such control programmes include quality management and control by the livestock producer, feed supplier, farm veterinarian, processor and retailer, regular checks by a control organisation, and supervision by the Government. Any future exporter of food of animal origin in the EU will have to comply with this to stay in business.

CONCLUSION

For animal producers in the EU accession countries and in the other seven countries that are still outside, there are mixed prospects: the cattle producers will benefit from milk quotas and in the majority fetch better prices, but because of quota restrictions, the expansion of operations will be difficult and costly. Beef production will probably continue to be supported by premium payments and benefit from an emerging deficit within the Community, but cheap beef will enter the Community from the World market. Considering the large deficit of the EU in sheep and goat meat, there should be good prospects for south-eastern European countries to find attractive markets. Pig and poultry producers in the accession countries will face stiffer competition from the West.

A large effort will be necessary to bring farm structures, labour and animal productivity up to such levels that they are competitive. The concentration of animal production and processing in certain areas, and contract production will stabilise the industry. Because of consumer sensitivity and the concentrated market force of retail companies, quality management and control schemes will have to be introduced.

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