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# HUNGARIAN AGRICULTURE AND EU ACCESSION

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**Agricultural Economics and Transition:**

**„What was expected, what we observed,  
the lessons learned.”**

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## ABSTRACT

Prior to enlargement regulations and the subsidy system played an important role in stabilising, especially, the livestock sectors, producers got used to national intervention mechanism, and production became rather insensitive to market signals. This, along with other shortcomings, caused serious problems in the process of opening the domestic markets during the EU integration process.

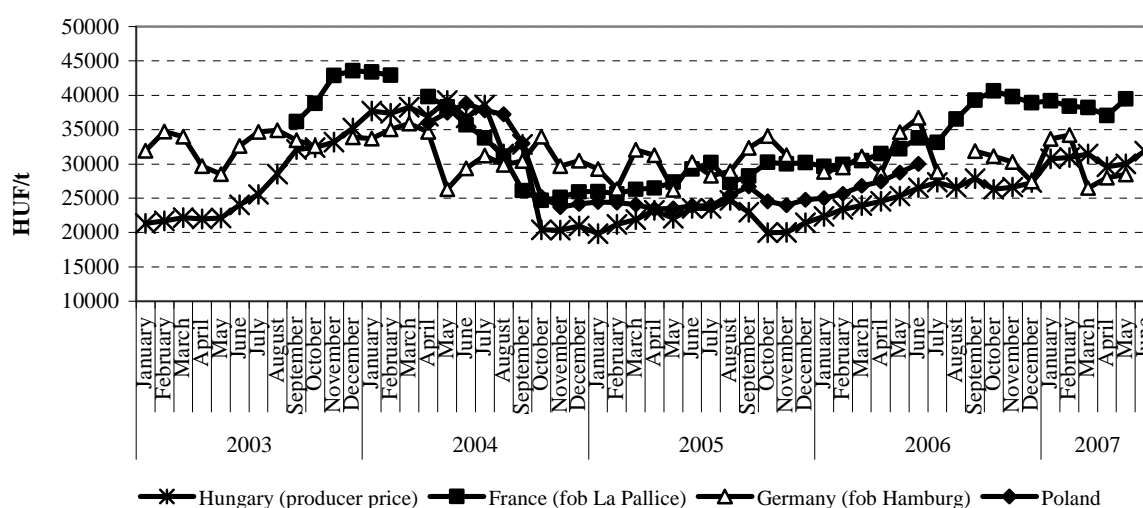
In this paper, after discussing the evolution of the Hungarian agricultural policy, we focus on the major agricultural sectors in the context of the development of agricultural and food trade in Hungary after EU enlargement. Despite excess stocks of cereals, the prospects for the major feed grain consuming sectors (i.e. dairy, pig meat and broiler meat production) to expand look rather slim in the mid-term. Meat and dairy producers will face the burdens of adjustment in the livestock sectors and the anticipated boom of biofuel production in Hungary.

**Keywords:** CAP, EU-accession, market developments, Hungary

## 1 INTRODUCTION

Because of the excellent natural conditions stakeholders of the Hungarian agri-food sector supported Hungary's accession to the EU. They were expecting a single market without trade distortion and a rational division of labour, with the assumption that all stakeholders would prepare for a successful EU accession. The positive expectations were based on relatively high yields and low producer prices. Model results are some sectors reflected that in particular crop producers (cereal, oilseed and protein) would be the winners of the enlargement [Mészáros et al., 1999, 2000a, 2000b; Udovecz, 2000; Mészáros and Spitalszky, 2002]. The low feed costs have masked the competitive challenges of the poultry and pork production. Prior to accession the market price for feed grain in Hungary was on average way below the intervention price in the EU (Figure 1).

Figure 1: **Producer prices of maize in Hungary, Poland, France and Germany (2003-2007)**



Source: Research Institute for Agricultural Economics

The projections of market developments, however, were not positive: they highlighted the existing inefficiencies, the lack of cooperation between farmers and the burdens of adjustments.

The share of agriculture in the GDP and employment has not changed considerably after enlargement. In 2005, agriculture in Hungary contributed 4.3 and 5 % respectively of GDP

and employment. No major change can be observed either in the development of the share of agricultural and food products in total exports and household income spent on food. The contribution of agriculture and the food industry to total exports was 7.2 % in 2005, down 0.8 % from 2000. The share of food products in the average household budget remained relatively high over the past years and stood at about 25 % in 2005 (Table 1).

**Table 1: Agriculture's place in the Hungarian economy (1990-2005)**

	<b>2000</b>	<b>2004</b>	<b>2005</b>
<b>Share of agriculture in GDP (%)</b>	5.4	4.8	4.3
<b>Share of agriculture in employment (%)</b>	6.6	5.3	5.0
<b>Share of agriculture in total investments (%)</b>	5.0	*3.9	*4.4
<b>Household income spent on food (%)</b>	29.2	26.7	25.0
<b>Share of agricultural and food products in total exports (%)</b>	8.0	7.1	7.2

Source: Hungarian Central Statistical Office (CSO)

\*Includes agricultural investments of households.

## **2 AGRICULTURAL POLICY PRIOR TO ENLARGEMENT**

Before enlargement, border measures, administered prices, input subsidies, area and headage payments, export subsidies were the main policy instruments used to support agriculture. Among payments based on the use of inputs, the most important were subsidized credits and capital grants, and fuel-tax subsidies. Budgetary support, based on capital, was provided mainly in the form of subsidized interest rates for farm credit and capital grants (for investments, working capital, land improvement and irrigation, for purchases of breeding animals etc.).

Institutional prices introduced before accession were well below the EU intervention price level especially for bread wheat and maize. A system of guaranteed prices combined with minimum and maximum intervention prices existed for milling wheat and feed maize, and buy-up quantities were strictly limited. Prices for milk, pig meat and beef were supported by a system of guaranteed, intervention and guidance prices. For these livestock products, output-based payments were used to cover the gap between market prices and guidance prices. In addition, price premiums for high-quality production were provided mainly for beef, milk, pig meat, poultry and game meat, although some vegetable products were also eligible. Support was also granted for the distillation and storage of high quality wines as well as for the storage of apples. Agri-environmental and rural development measures were increasing in importance. Per hectare subsidies to limit soil erosion and to promote organic farming were the two main environmental policy measures.

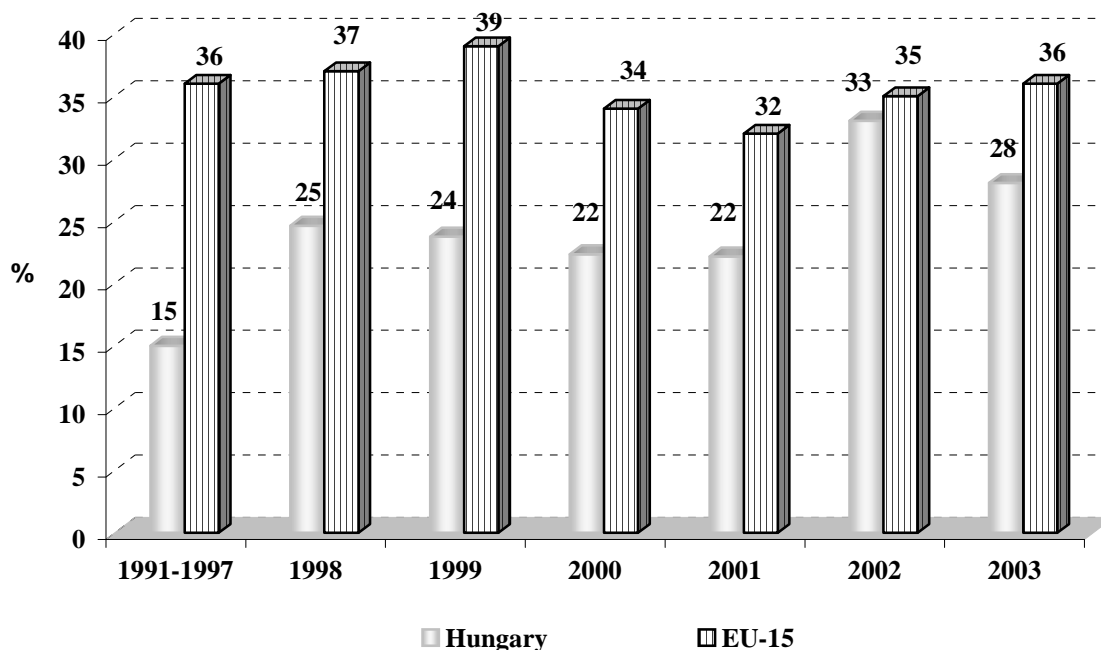
An area based payment scheme was established in 1999 and remained one of the main programs providing direct payments to farmers. Farms with less than 300 hectares of agricultural land were granted area payments to with payments inversely related to the farm size (this discriminative feature was later discontinued). Headage payments were provided for the purchase and breeding of animals. For milk, an output quota was introduced. None of these policy measures did fully comply with the CAP [Popp – Potori, 2006].

An agricultural trade agreement between Hungary and the EU entered in force on 1 July 2000. This agreement liberalized agri-food trade according to the so-called “double-zero” principle under which the two parties agreed not to use export refunds or import duties for a range of products. For some more sensitive products, where this principle was not applied preferential quotas were extended. In 2002, the agreement was replaced by a new trade liberalization agreement. As a result, 97 % of Hungarian agri-food exports to the EU and 84 % of EU exports to Hungary became free of import duties before accession.

The producer support estimate (PSE) – support to producer measured as a percentage of farm receipts – remained relatively high between 1991 and 2003 in the EU-15 fluctuating between 32-39 %.

During the period 1998-2003, the PSE in Hungary almost doubled from a 15 % average of 1991-1997 to 33 and 28 %, respectively, in 2002 and 2003 (Figure 2). The upward and downward trend of the PSE between 1991 and 2003 conceals considerable increase in budgetary payments and market price support (MPS). Nevertheless, other candidate countries (Poland, Baltic states, Slovakia ect.) provided less support to producers prior to enlargement than Hungary

Figure 2: %PSE of Hungary and the EU-15 (1991-2003)



Source: Research Institute for Agricultural Economics, OECD

With a view to EU membership, budgetary resources were allocated to support farm extension services, to improve the farm data collection and management system (Farm Accountancy Data Network) and to build the institutional framework required for the EU Special Accession Program for Agriculture and Rural Development (SAPARD). Investment aids were also granted to the food industry in order to ensure compliance with EU quality and food safety regulations.

Prior to accession, SAPARD provided funds for four groups of measures: investments in agricultural holdings; improvement of the processing and marketing of agricultural and fishery products; development and improvement of rural infrastructure; and diversification of activity in rural areas. Due to the late approval of the Hungarian SAPARD by the European Commission (EC), payments to agriculture within SAPARD accounted for only 25 % of the total SAPARD funds in 2004. In 2005, 50 % of the total SAPARD funds were paid out, and the rest was made available in 2006.

### 3 EU ENLARGEMENTS

#### 3.1 Direct payments

Hungary has opted for the Single Area Payment Scheme (SAPS). The Act of Accession provides for a transitional period for the progressive introduction of the CAP direct payments in the new member states. New member states received in 2004 25% of the full EU-15 payment rate from EU budget, rising gradually to 100% by 2013. Direct payments are divided

equally over all eligible hectares. During the phase-in period the new member states may complement (top up) EU funds for direct payments by national contribution (Complementary National Direct Payment: CNDP) up to 30% above the applicable phasing-in level for direct payments for the relevant year (Table 2).

**Table 2: Phasing-in schedule for direct payments in the EU-10**

	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>
EU payment	25	30	35	40	50	60	70	80	90	100
National top-up	30	30	30	30	30	30	30	20	10	-
Maximum payment	55	60	65	70	80	90	100	100	100	100

Source: DG AGRI, Brussels

CNDP may be granted for the production of products covered by the CAP support schemes. Bovine animals (beef production) and ewes can be supported exclusively by CNDP. Most support will continue to benefit larger and often richer farms. The level of area payments is based on reference yield. Due to low reference yields, area payments granted for the new member states (EU-10) will reach by 2013 on average 83% of the level of the EU-15 (Table 3).

**Table 3: Area payments granted for the EU-10 [SAPS+CNDP\*]/ha (in EUR/ha)**

<b>Country</b>	<b>Reference yield t/ha</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011-2013</b>
<b>Czech Republic</b>	4,20	145,7	159,0	172,2	185,5	212,0	238,5	265	265
<b>Hungary</b>	4,73	149,5	161,0	174,3	208,6	238,4	268,2	298	298
<b>Poland</b>	3,00	104,0	113,4	122,9	132,3	151,2	170,1	189	189
<b>Slovakia</b>	4,06	140,8	153,6	166,4	179,2	204,8	230,4	256	256
<b>EU-10</b>	**4,00	138,6	151,2	163,8	176,4	201,6	226,8	252	252
<b>EU-15</b>	4,77	300,5	300,5	300,5	300,5	300,5	300,5	300,5	300,5
<b>EU-10/ EU-15,%</b>	83,8	46,1	50,3	54,5	58,7	67,1	75,5	83,8	83,8

Source: DG AGRI, Country Reports

\*CNDP: from the national budget

\*\*Author's estimate

### **3.2 Rural development**

SAPARD was replaced by the Hungarian Agriculture and Rural Development Operational Programme (ARDOP) and the National Rural Development Plan (NRDP) for the EAGGF Guarantee Section Measures both covering the years 2004-2006. However, due to the late approval of these programs by the European Commission, there were no payments in 2004. Payments within these programmes started only at the end of 2005, and will be finished by 2008.

The NRDP planned expenditure is € 754 million for the period 2004-2006, of which 20% or € 152 million has to be financed by the national budget (Table 4). The NRDP has been financed by the EAGGF Guarantee Fund on rural development priorities, i.e. different agro-environmental schemes as well as to help less-favoured areas (LFA) or to finance early retirement, etc. In 2006, HUF 61 billion (€ 244 million) has been paid from the NRDP budget. A total of € 423 million was made available through ARDOP over the period 2004-2006 with 25 % financed by the national budget (Table 5). During 2004-2006, the Agriculture and Rural Development Agency (ARDA) received over 11 thousand applications for ARDOP support of which almost 40 % were accommodated. Over 60 % of the accommodated applications were submitted for investment aids. Until March 2007, about HUF 77 billion (€ 308 million) has been paid from the ARDOP budget [Potori – Nyárs, 2007].

Table 4: **EAGGF Guarantee expenditures in Hungary: NRDP (2004-2006)**

Measures	Total budget € 602 mln (EU) + € 152 mln (national)	
	HUF billion	%
<b>1. Agri-environment</b>	<b>78</b>	<b>40.8</b>
2. LFA and areas with environmental restrictions	21	10.8
<b>3. Meeting standards/animal welfare</b>	<b>43</b>	<b>22.5</b>
4. Afforestation of agricultural land	20	10.6
5. Early retirement	5	2.6
6. Semi-subsistence farming support	6	3.2
7. Setting up producer groups	9	4.5
(8. Technical assistance)	10	5.0
Total	192	100.0

Source: Research Institute for Agricultural Economics

Table 5: **EAGGF Guidance expenditures in Hungary: ARDOP (2004-2006)**

Measures	Total budget € 317 mln (EU) + € 106 mln (national)	
	HUF billion	%
<b>1. Assistance to investments in agriculture</b>	<b>55</b>	<b>52.1</b>
2. Setting up of young farmers	3	2.9
3. Assistance to vocational training and retraining	2	1.5
4. Structural assistance in the fisheries sector (FIFG)	1	1.4
<b>5. Improvement of processing/marketing of agricultural products</b>	<b>15</b>	<b>14.2</b>
6. Expansion of rural income earning opportunities	6	6.1
<b>7. Development and improvement of infrastructure connected with agriculture</b>	<b>12</b>	<b>11.3</b>
8. Renovation and development of villages	4	3.5
(9. LEADER+)	5	4.6
(10. Technical assistance)	3	2.5
Total	106	100.0

Source: Research Institute for Agricultural Economics

### 3.3 National support

Apart from top up payments, several national support programs have been provided following EU accession as a continuation of pre-accession policy measures. These include support for on-farm afforestation, subsidized veterinary costs, intra-EU marketing of agri-food products,

water management, training, education and research, credit subsidies, producer organizations and social insurance fees. In February 2004, an agricultural loan program worth € 397 million to help farm businesses, and small- and medium-sized food processing plants prepare for EU accession was approved. The program provided, *inter alia*, for medium-term loans with a favourable interest rate and debt rescheduling. Some resources were also allocated to new temporary national support schemes maintained until 30 April 2004 such as support for fruit and wine plantations, export subsidies, etc.

#### 4 EXPECTATIONS AND EXPERIENCES OF HUNGARY

The situation in Hungarian agriculture 3 years after enlargement appears relatively mixed. The market impact of enlargement seems to be both positive and negative. High expectations have been fulfilled only partly: the single market has not proved to be transparent due to different direct payment schemes in place in the member states leading to trade distortion. The delayed preparation for EU membership and the late implementation of the CAP can not be considered a success story either. Agricultural producers and the food industry have underestimated the burdens of adjustment and the pressure to improve efficiency after enlargement.

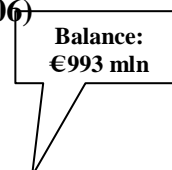
Hungary has not realized in time that the huge fluctuation of purchasing power and consumption patterns of consumers in the member states would have an impact on the development of consumer food prices: a food product in one member state considered as a cheap “by-product” become highly demanded in another, thereby destroying producer prices. More efforts are needed to improve the vertical coordination and strategic cooperation between the up- and downstream sectors.

The first experiences of enlargement have been rather negative than positive for Hungary leading to cash-flow problems faced by the Hungarian farmers after enlargement, to rapid increase of agricultural imports and to demonstrations. The relative “peace” in agriculture can be attributed to the record harvest in the past three years and to the implementation of the single area payment scheme (SAPS) together with CNDP. In addition, the income of farmers has increased every year since enlargement. An effective integration into the single market depends on the development of production and marketing infrastructure and on the compliance of production with EU standards in a cost efficient manner [Mészáros et al., 1999].

#### 5 DEVELOPMENTS IN AGRICULTURAL TRADE

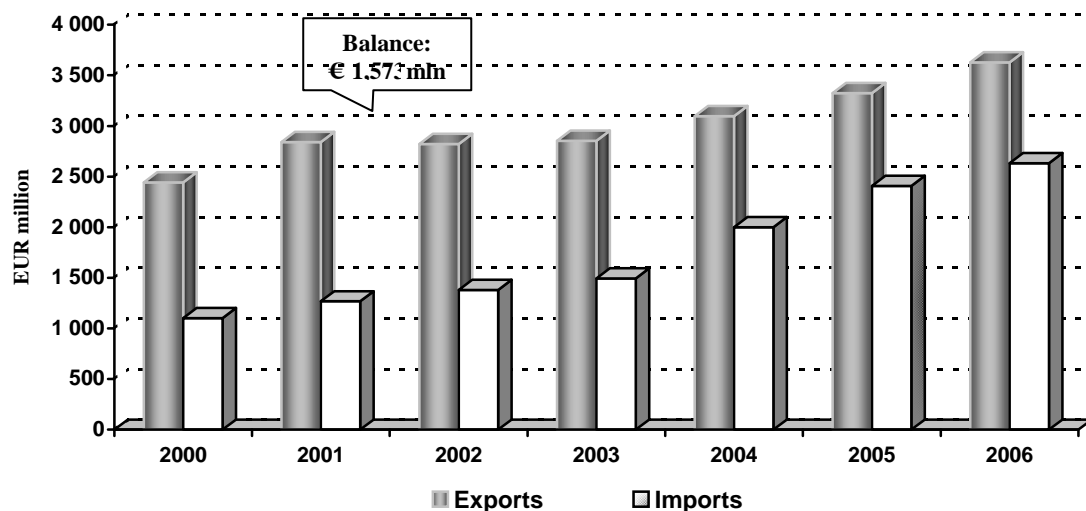
As regards agricultural and food trade, Hungary has maintained its position as a net exporter after accession. During 2004-2006, exports and imports both increased, from € 3.1 to € 3.6 and from € 2 to 2.6 billion respectively. The agricultural and food trade balance has fallen from almost € 1.6 billion in 2001 below 1 billion in 2006 (Figure 3). Although imports are projected to increase further, the agricultural and food trade balance of Hungary is likely to remain positive; however, if improvements in the commercial infrastructure fail to take place, the trade surplus may slowly erode (it is worth noting that the sale of the intervention stock may temporarily increase trade surplus in 2007).

Figure 3: Dynamics of agricultural and food trade (2000-2006)



Balance:  
€993 mln

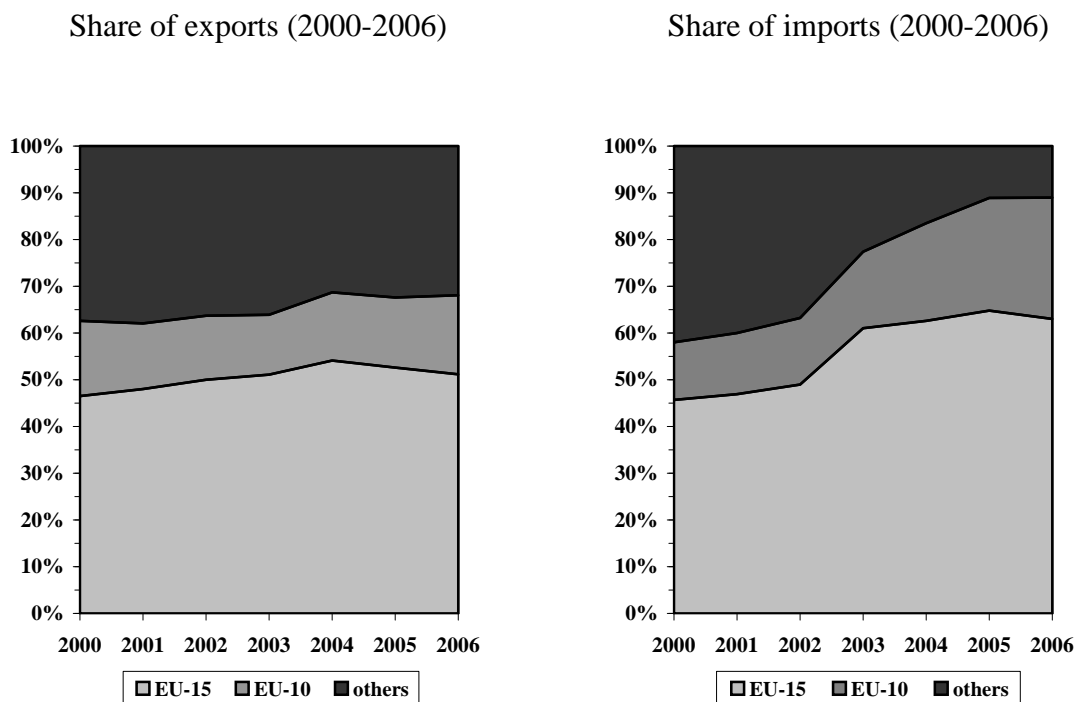




Source: Central Statistical Office and Research Institute for Agricultural Economics

A high level of integration of markets of the EU-25 was achieved prior to enlargement. The impacts on intra-EU-25 trade are driven by changes in production and consumption, rather than by the lowering of intra-EU-25 protection, which was already low before accession. Nevertheless, trade creation effects have been observed since accession in a number of areas where prior to enlargement barriers to trade existed, in particular between old and new member states but also between old and new member states. Membership had positive effects as far as trade integration between Hungary and the new member states is concerned. The integration of agricultural and food trade between Hungary and the EU is more advanced on the import side: the share of exports to the EU-25 increased from 64 to 69 per cent while the share of imports from the EU-25 rose from 67 to 80 per cent in 2004. While the share of exports to the EU-25 remained stable the share of imports from the EU-25 rose 89 per cent in 2006 with only imports from the new member states showing an increase (Figure 4).

Figure 4: **Integration of agricultural trade between Hungary and the EU ( 2000 -2006)**



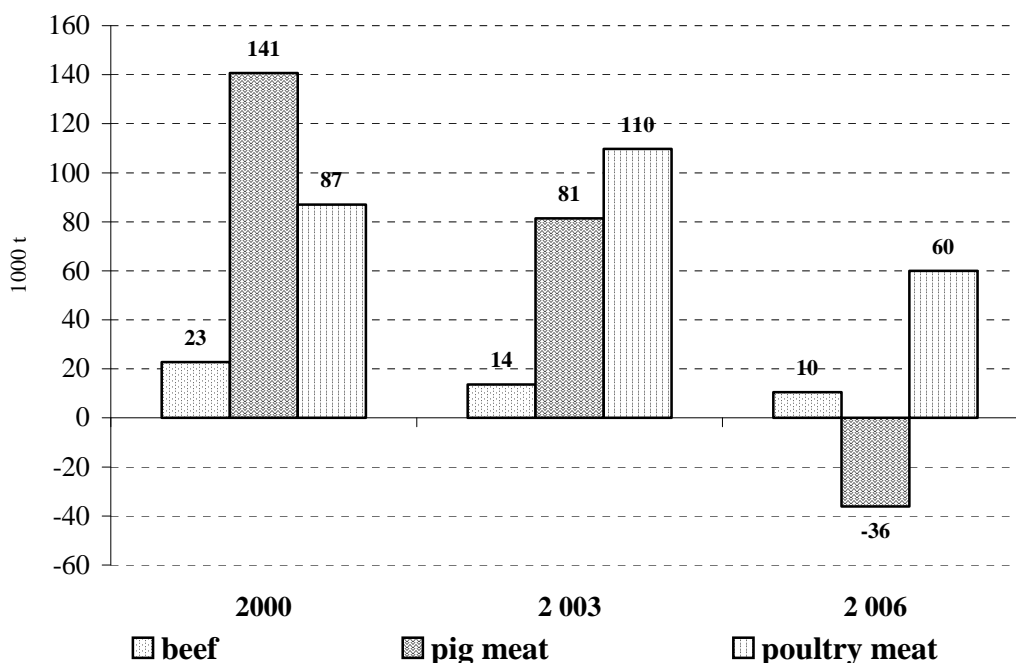
Source: Central Statistical Office

## 6 AGRICULTURAL MARKET DEVELOPMENTS

Although livestock producers in Hungary enjoyed a system of guaranteed, intervention and guidance prices, and some direct subsidies, they had almost no access to investment and capital aids in the pre-accession years, which was partially the reason for a drop-back in production, even with headage payments being continued after accession to help pig and poultry producers meet EU environmental, animal-health and welfare requirements. Late approval of the Hungarian SAPARD, the ARDOP and the NRDP by the European Commission and thus the delay of payments have also contributed to the decline of the livestock sectors [Mészáros – Spítálszky, 2002].

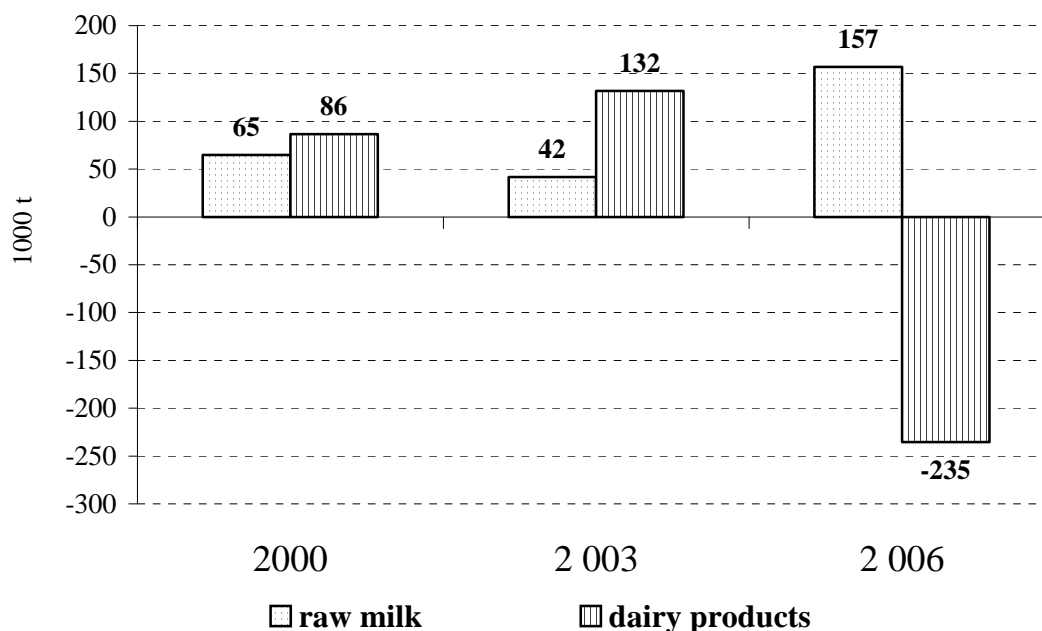
In Hungary, the livestock sectors are the largest consumers of cereals. Production of pig meat and poultry will remain the dominant factor in the development of total demand for feed grains. The Hungarian domestic market of cereals is characterised by the decreasing use of cereals for feed and food. The cereal-fed livestock production could not benefit from favourable regional feed cereal prices as well as from opportunities to expand markets share of poultry meat and pork meat on the EU markets [Mészáros et al., 2000a]. In the past two years, Hungarian pig meat production has decreased at a faster pace than poultry meat production (Figure 5). The lack of competitiveness has led to production constraints in the dairy markets as well (Figure 6).

Figure 5: Trade of meat products in Hungary



Source: Research Institute for Agricultural Economics

Figure 6: Trade of dairy products in Hungary

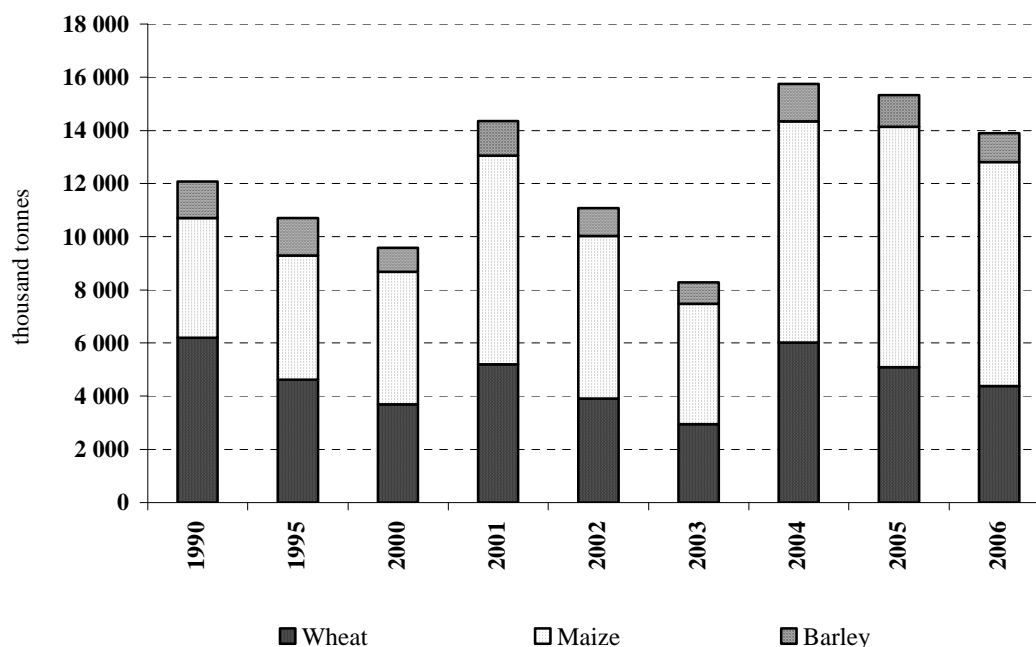


Source: Research Institute for Agricultural Economics

### 6.1 Cereals production

As a result of the extraordinarily favourable weather conditions, cereals production in Hungary doubled in 2004, compared to 2003, to a record of 16.8 million tons, and 2005 output was only slightly down. In 2006 production was still well over 14 million tons (Figure 7).

Figure 7: **Production of the major cereals in Hungary (1990-2006)**



Source: Hungarian Central Statistical Office and Research Institute for Agricultural Economics

Market participants with insufficient storage capacity began to invest in the building of new stores in order to bridge the gap between harvest time and the beginning of the intervention season, and thereby fully benefit from the CAP. To speed up this process, rural development funds were made available. By the end of 2006, a total of 4.1 million tons of new storage capacity became available for the storing of intervention grains. Unfortunately, these

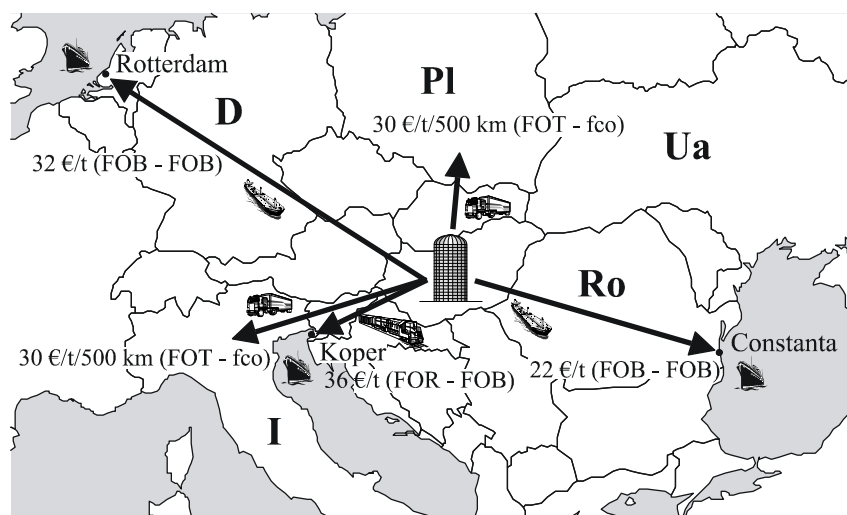
investments were not fitted into an overall infrastructure development strategy, and therefore the whole program might prove economically unsuccessful in the longer term.

In 2004/05, expectations of market participants regarding the guarantees provided by the EU cereal intervention regime on the one side, combined with the lack of adequate storage capacity for intervention grains and the high cost of transport, on the other, led to serious disruption in the Hungarian cereals market. As the taking of cereals into intervention as well as the area payment (both SAPS and the national top-up payment for arable crops) was delayed considerably, farmers faced increasing liquidity problems, and began to sell out their wheat; maize and barley stocks mostly to well capitalized trading firms at the lowest prices in the EU-25.

In the 2004/05 and 2005/06 intervention season, 8.1 million tons of cereals were taken into intervention. Intervention opening stocks at the beginning of the 2006/07 crop year totalled to 7 million tons. In the 2006/07 intervention season, only 1.5 thousand tons of cereals were taken into intervention. The disappearance of intervention stocks became a rapid process. If this continued at the pace observed in the last months of 2006 and in the first months of 2007, intervention stocks could decline below 1 million tons until the beginning of the 2007/08 intervention period.

For Hungary, as for a few other new member states, being landlocked is a permanent disadvantage not considered in the Common Market Organisation for cereals. The transport cost of cereals is high due to the scarcity of shipping capacities and the inefficiency of infrastructure. Hungarian cereals are competitive only within a limit of certain distances of transportation, primarily by shipping cereals on the Danube River (Figure 8). The cost up to the sea amount to € 20-30 per ton at least. Grain transport on rails has been too expensive in the last few years, and this it is hardly surprising that the share of railways in Hungarian grain exports has decreased recently.

**Figure 8: Cost of shipping cereals by different transport modes from Hungary to EU destinations/exits (April, 2007)**



Source: Research Institute for Agricultural Economics

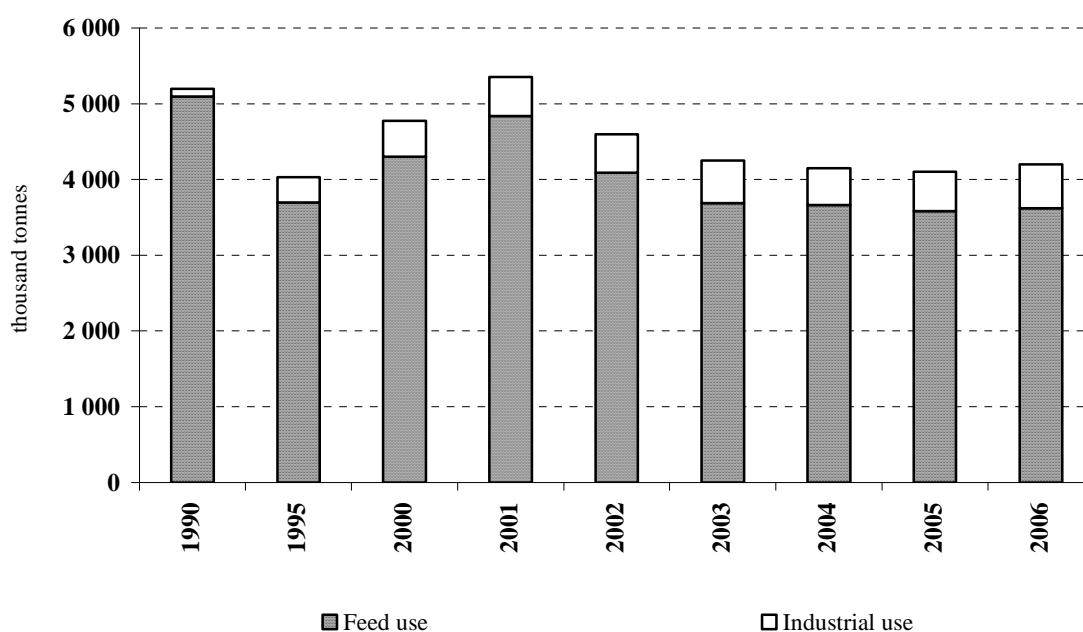
Note: 36 €/t (FOR – FOB) to Koper means the cost of transporting 1 tonne of grain to Koper already loaded on wagon at the geographical centre of Hungary is €36 including handling charges plus the cost of having the goods loaded aboard a ship.

Undoubtedly, Hungary will remain a major potential exporter of wheat in the new member states: production of wheat is expected to stabilize between 4.5 and 5 million tons while domestic consumption is unlikely to exceed 2.5-3 million tons. Demand from the milling industry will stay at around 1.3-1.5 million tons of high quality wheat, while the expansion of feed wheat use may be constrained to a large extent by the excess quantities of by-products from the emerging bioethanol industry.

Demand for feed maize is expected to remain well below 4 million tons in the next few years. Bioethanol production is likely to increase domestic maize consumption and reduce excess stocks significantly in the mid-term. Besides the two existing processing plants (Szabadegyhaza and Gyor) with a total capacity of about 500 thousand tons of maize (for bioethanol and glucose production), various investor groups have announced the building of bioethanol plants at more than 20 sites in the country. Assuming that the demand for raw material of the domestic bioethanol industry increases 3 million tons in 2010/11, and world market prices of cereals remain at a high level (which is very likely *inter alia* because of mandatory blending of bio-fuels in the US and the EU), the eventual accumulation of maize stocks will become a marginal issue (Figure 9).

To comply with the 5.75 % replacement rate set by the EU Biofuels Directive for renewable energy resources in 2010, Hungary would need about 120 thousand tons of bioethanol, which can be produced from 50-60 thousand hectares of maize. However, in the mid-term, large quantities of bioethanol could be exported to the EU-15 (e.g. Sweden, Denmark and Germany).

Figure 9: Domestic feed and industrial use of maize in Hungary (1990-2006)



Source: Hungarian Central Statistical Office and Research Institute for Agricultural Economics

The production of biofuels from energy crops will provide for many Hungarian farmers with a significant new market for their crops. Farmers will have potential for long-term contracts; price certainty through fixed contracts, with prices being set higher than the cost of production, allowing cash-flow forecasts and thus providing an opportunity to invest in the infrastructure and thus they will face less risk.. The high-protein by-product of the industry supports the livestock sector reducing the need for production of some cereals being grown for animal feeds topped up by EU imports.

## 6.2 Oilseeds production

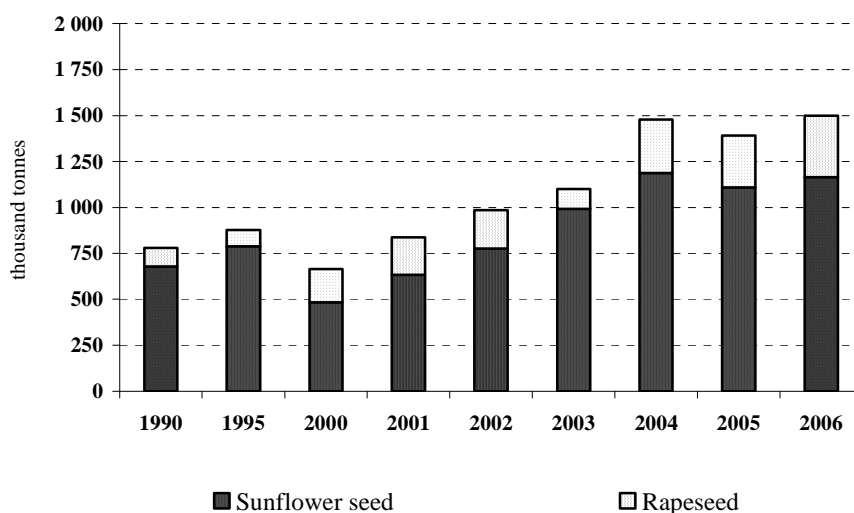
With a production volume over 1 million tons a year, sunflower is by far the most important oil crop in the country. Oilseed rape is second to sunflower in Hungary with an average output of 300 thousand tons (2004-2006).

Due to the growing demand for edible sunflower seed oil and biodiesel produced from oilseed rape, as well as the phasing in of EU direct support, oilseeds production is expected to be profitable in the short- and mid-term. The eventual accumulation of oilseeds stocks is improbable: sunflower and rapeseed produced in Hungary will be processed domestically or

exported. Due to the expansion of domestic crushing capacities, exports are expected to decrease further (Figure 10).

To comply with the 5.75 % replacement rate set by the EU Biofuels Directive for renewable energy resources in 2010, the country would need 130 thousand tons of biodiesel for domestic use which would require the processing of more rapeseed than the total output of the last years or the imports of biodiesel.

Figure 10: **Production of the major oilseeds in Hungary (1990-2006)**

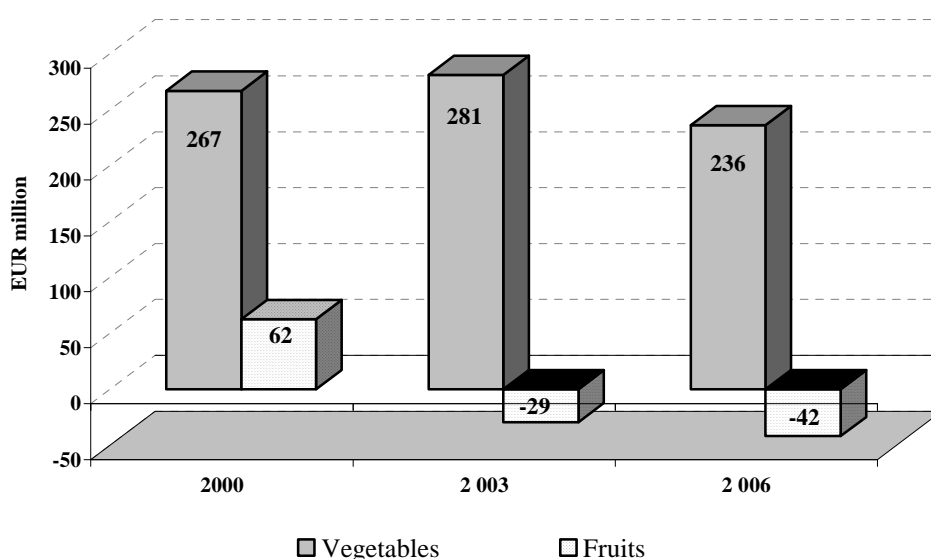


Source: Hungarian Central Statistical Office and Research Institute for Agricultural Economics

### 6.3 Fruit and vegetable production

Fruit and vegetable production represent 10-12 % of total agricultural production in Hungary. In the fruit sector, the impacts of accession have been more adverse than expected. The foreign trade of fruits has been characterized by the decline of exports and the steady increase of imports during the past few years. Import growth was particularly strong in the case of banana and exotic fruits (substitutes for traditional fruits), as well as of melons and table grapes. However, processed fruits still exhibited a positive balance thus the total net trade of the fruit sector amounted to minus € 42 million in 2006 (Figure 11).

Figure 11: **Foreign trade position of the Hungarian fruit and vegetable sector (2000-2006)**

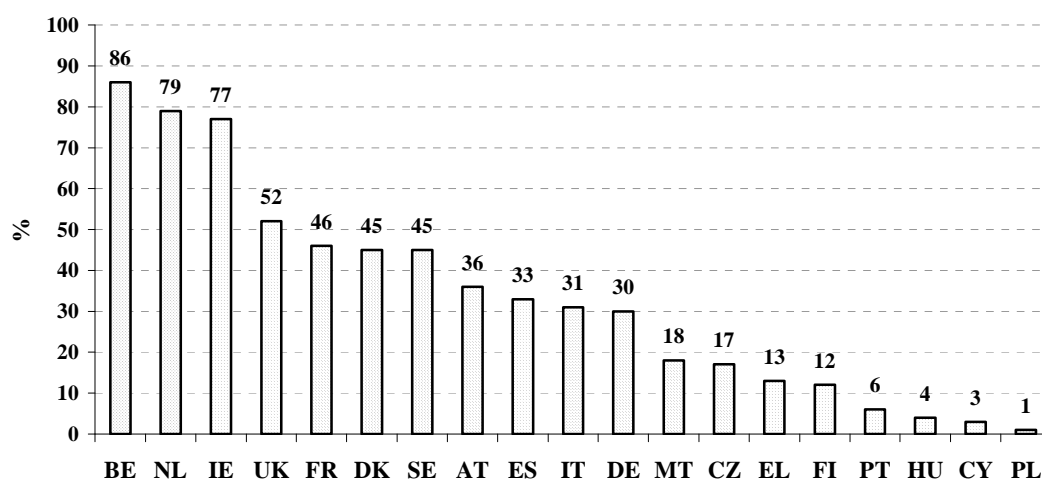


Source: Research Institute for Agricultural Economics

Vegetable production is of significant importance in Hungarian horticulture. In the Central and Eastern European region, natural conditions, geographical location (proximity of major markets) and traditions are all favourable for vegetable production. As a result of adverse market trends total vegetable production decreased from 2 million tons in 2004 to 1.5 million tons in 2006. The foreign trade of fresh and processed vegetables has been characterized by the steady increase of both exports and imports during the past few years; however the growth of imports were more dynamic thus the trade balance declined by 16 % during 2003-2006 (Figure 10).

In the pre-accession years, cooperation between farmers and emerging Producer Organizations (POs) started too late and too slowly, and the lack of readiness has spawned further weakening in producer bargaining positions causing an unfavourable effect on sales and incomes (Figure 12). Currently there are 52 provisionally recognized and 8 recognized POs integrating some 21 thousand producers, and having an estimated 15-18 % share of total fruit and vegetable sales which signals a considerable growth compared to 2004.

**Figure 12: Share of PO sales in the fruit and vegetable sector of the EU-25 in 2004**



Source: European Commission

#### **6.4 Pig meat production**

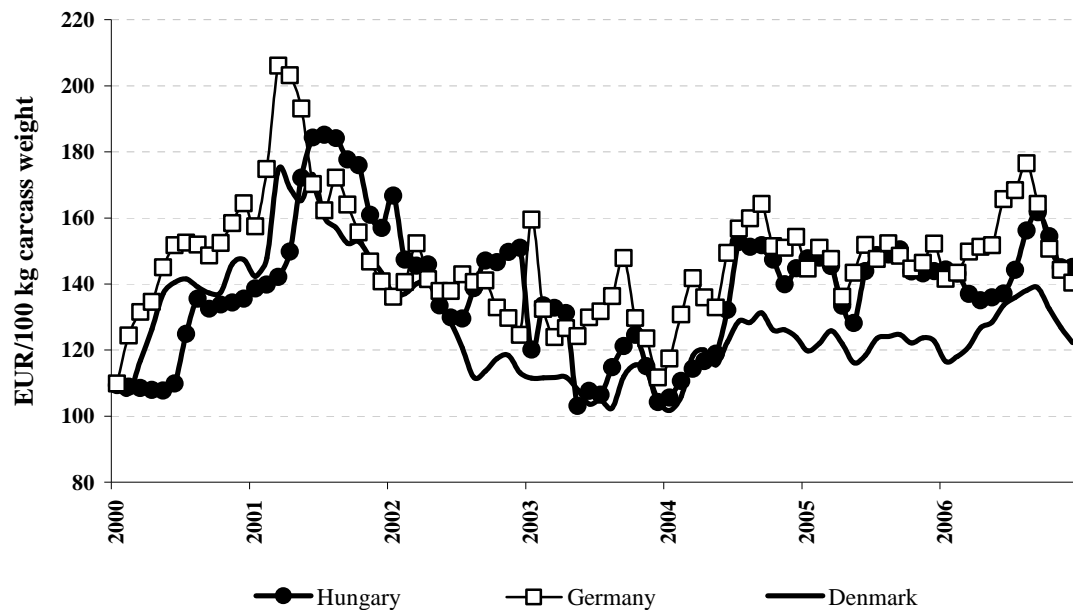
During 2000-2006, producer prices of pigs in Hungary closely followed price movements in Germany and Denmark with a few months lag. Since enlargement, Hungarian prices have been fluctuating around €130 per 100 kgs carcass weight, still above the Danish but below the German average (Figure 13).

Prior to accession, imports were insignificant in the sector but after enlargement the number of imported live pigs and the volume of imported pork have increased dramatically. In 2005 Hungary became a net importer of pig meat (Figure 10). Most of the imported live pigs came from Holland; however, in 2006, Poland became the major supplier.

As far as direct support is concerned, the partial or full decoupling of top-up payments will have no perceptible impact on the development of the Hungarian pig sector: in the coming few years, the number of pigs is expected to change very little, not exceeding 4-5 million at the end of the decade. The possession or use of arable land which helps the sector to receive support indirectly is undoubtedly an essential condition for growth. Flattening of the pig-cycle is expected in the coming years. This is primarily due to the substantial decrease in the number of small-scale family farms engaged in pig breeding and fattening which results in a more balanced supply and a more stable domestic market.<sup>1</sup>

<sup>1</sup> Already in the year of accession, over 200 thousand family farms abandoned pig breeding and fattening because of the changes in agricultural policy and markets.

Figure 13: **Producer prices of pigs\*** in Hungary, Germany and Denmark (2000-2006)



Source: Eurostat, AKI

\* 'E' quality class.

The lack of capital, the urgent need for modernisation, compliance with EU environmental, animal-health and welfare requirements are all deterring production; moreover, foreign investors are discouraged *inter alia* by the existing land law. Also because of the pressure on the Hungarian pig meat market caused by Polish exports, a number of producers including big farms decided to give up production in the first months of 2007.

## 6.5 Broiler production

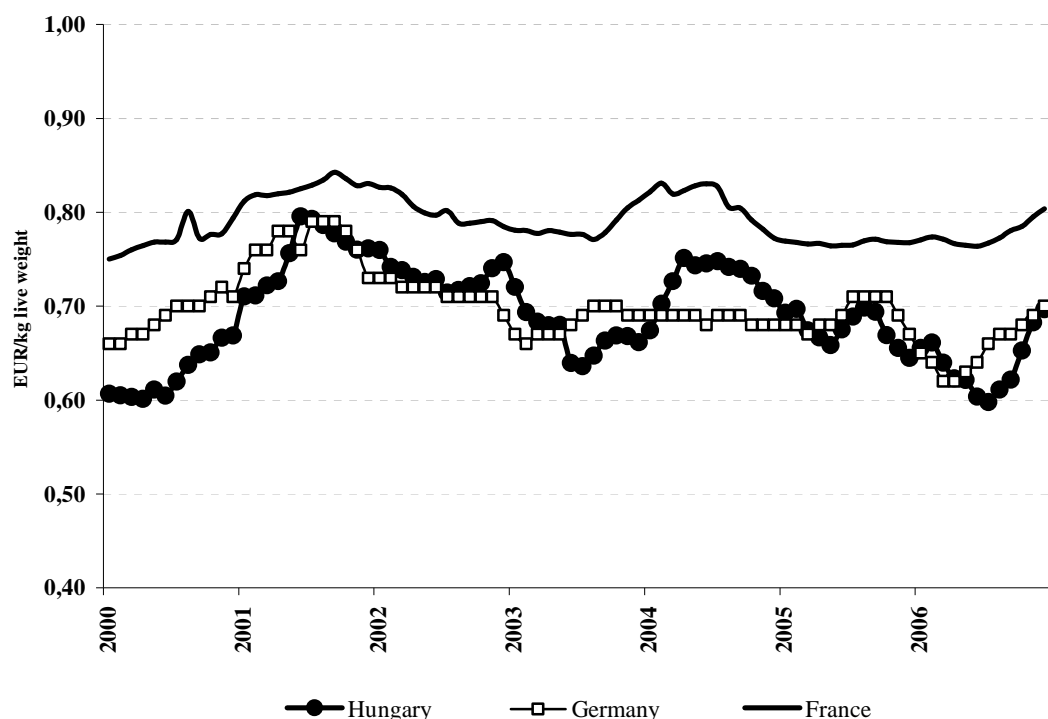
During 2000-2006, producer prices of chicken varied between € 60 and 75 per 100 kgs live weight in Hungary. Due to strengthening of the national currency in the second half of 2001, prices reached the German level, and since then, producer prices in Hungary and Germany have been moving more or less closely but remained well below the French level (Figure 14).

After enlargement, due to the continuous decline of producer prices production dropped back slightly. In 2006, due to the increase of production costs, low purchase prices and outbreaks of Avian Influenza, the broiler industry faced losses and production continued its downward trend. However, in the next few years, broiler meat production is expected to stabilise.

Sales to the EU-15 are expected to decrease further in the next few years; in fact, there is a threat that exports will completely erode by the end of the decade. The position of Hungarian broiler meat production will be seriously challenged, since Hungarian broiler meat exports essentially consist of oven-ready products. In terms of prices, Hungarian exporters are unable to compete with Brazilian suppliers.

Figure 14: **Producer prices of chicken in Hungary, Germany and France (2000-2006)**





Source: ZMP, Agreste, CSO

## 6.6 Dairy and beef production

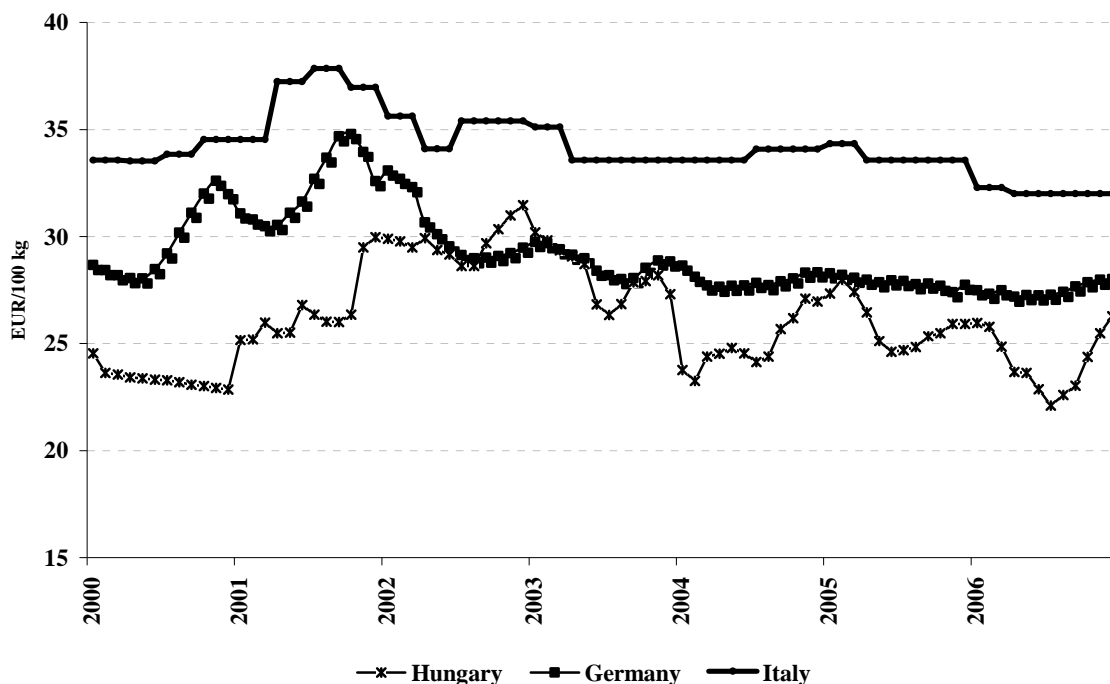
During 2000-2006, producer prices of milk in Hungary showed more seasonal fluctuations than prices in the old member states. Due to the strengthening of the national currency in the second half of 2001, prices in Hungary reached the German level, and since then, they have exhibited a seasonal peak very close to the actual price level in Germany every year (Figure 15).

After EU accession, imports of liquid milk and low-priced dairy products from the NMS increased at a fast rate, and the volume of high added-value dairy products from the EU-15 has grown as well. On the other hand, raw milk exports to Italy increased continuously thanks to high prices in the Italian market. In 2005 Hungary has become a net importer of milk and dairy products (Figure 11). Imports of dairy products such as cheese and curd doubled while total exports decreased by 34% during 2004-2006. While the volume of raw milk imports is unlikely to change, imports of processed dairy products is forecasted to expand further.

The number of dairy cows is likely to decrease slightly in the years ahead. Nevertheless, the total number of cattle in Hungary is expected to remain at the same level in the next few years, which can be regarded as a positive change after experiencing a continuous decline during the period between the start of economic transition and EU enlargement. This is primarily due to the EU and national direct subsidies which are considerably higher compared to direct payments granted before accession, and as far as beef cattle are considered, to the push-up effect of the EU institutional price on domestic producer prices. However, partial and full decoupling of direct aids may have a negative effect on beef production.

The low profitability of milk production warns that the sector may not be able to generate the financial resources needed for an urgent modernization, *inter alia*, to meet EU environmental requirements. An anticipated slight increase of producer prices in the coming years may contribute to the improvement in net incomes of dairy farms still in production.

Figure 15: Producer prices of milk in Hungary, Germany and Italy (2000-2006)



Source: AKI, ZMP, CLAL

Direct aids coupled to production, guarantees provided by the beef intervention system and the growing demand for fattened bulls had a positive effect on beef production in 2004 and 2005. Producer prices continued their upward trend and exceeded the 2004 level by nearly 30 % in 2005 and increased by a further 3% in 2006, although they were still below the EU-25 average. Imports of live cattle are expected to decrease steadily as the complementary national direct payment for fattened bulls has become decoupled from production in 2007. Imports of beef are projected to grow only slightly. Exports of live cattle and beef are foreseen to decrease by 10 % until the end of the decade.

## 7 CONCLUSIONS

The impact of enlargement on certain markets has not been unambiguously positive in Hungary. Problems caused by delays in establishing the required infrastructure and institutions have been amplified by record harvests in the first two years of EU membership. Both the value of agricultural exports and imports has increased in Hungary after accession. In 2004 and 2005, the rate of increase of imports exceeded that of exports. However, the agricultural trade balance will still remain positive with a decreasing trend partly due to the increasing feedstock consumption by the biofuel industry.

Competitiveness of cereal and oilseeds production in Hungary is out of question; however, the use of cereals for food and feed is decreasing while bioethanol production is likely to increase domestic maize consumption. The production of biofuels will provide for many Hungarian farmers with a significant new market for their crops. The trade balance of the fruit and vegetable sector has declined after enlargement.

In the pre-accession years livestock producers in Hungary enjoyed some direct subsidies but they had almost no access to investment and capital aids. This and the late approval of rural development programmes contributed largely to the decline in production. Outlook for livestock production, especially for the pig meat, poultry meat, and milk production is rather depressing.

The proposed "health-check" of the CAP in 2008 provides an opportunity for both review and simplification. We hope that the "health-check" will lead to more transparent single market, to the decrease of trade distortions between member states and to less support schemes based on past production. The health check may also provide an opportunity for further reform driven by the pressures from the 2008/2009 EU budget review. The budget review provides an

opportunity for the EU to undertake a full and wide-ranging review on all aspects of EU spending, including the CAP. The mechanisms of the CAP will need to be reformed in order to ensure simplification and reflect the demands and expectations of society if public money is to be spent on public goods.

Agriculture remains a strategic asset; this is likely to increase in the coming years given the contribution it can make to reducing climate change. Agricultural production is likely to increase in the longer term due to the growing global demand for food and non-food crops, including energy crops. Looking to the future there is a clear need for a longer term policy outlook in the EU, to prepare for and respond to growing external (globalisation) and internal (societal, financial, enlargement) pressures, and at the same time to give farmers the certainty they need to run their businesses competitively.

## References

1. Mészáros S. – Spitálszky M. – Udovecz G.[1999]: Az EU-csatlakozás várható agrárgazdasági hatásai – Modellszámítások I. Budapest: Agrárgazdasági Kutató és Informatikai Intézet.
2. Udovecz G. [2000]: A Magyar Agrárgazdaság felkészültsége és versenyképessége az Európai Unióban (MTA doktori értekezés).
3. Mészáros S. – Spitálszky M.– Udovecz G.[2000a]: Az EU-csatlakozás várható agrárgazdasági hatásai – Modellszámítások II. Budapest: Agrárgazdasági Kutató és Informatikai Intézet.
4. Mészáros S.– Spitálszky M.– Udovecz G.[2000b]: A termelői és a fogyasztói árak változása, az agrárgazdasági termelés és az export-import alakulása, költségvetési hatások (a MEH Európai Integrációs Főosztály részére készült tanulmány). Budapest: Agrárgazdasági Kutató és Informatikai Intézet.
5. Mészáros S.– Spitálszky M.[2002]: A magyar élelmiszergazdaság versenyképességének alakulása az EU közvetlen jövedelemtámogatási mértékétől függően (kézirat). Budapest: Agrárgazdasági Kutató és Informatikai Intézet.
6. Potori N. – Udovecz, G. [2005]: 'An assessment of the short-term impacts of EU integration on Hungarian agriculture', *Studies in Agricultural Economics*, no. 102, pp. 5-14. Budapest: Research Institute for Agricultural Economics (AKI).
7. Kovacs, G. – Udovecz, G. [2005]. 'Hungarian agriculture's first year in the European Union', *Studies in Agricultural Economics*, no. 103, pp. 5-16. Budapest: Research Institute for Agricultural Economics (AKI)
8. Popp, J – Potori, N. (2006): 'Excerpts from the EU-integration Story of Hungarian Agriculture: Heading Where?', *EuroChoices*, vol. 5, no. 2, pp. 30-39.
9. Popp, J. – Potori, N.[2006]: 'Agrarian policy of the countries of Central and Eastern Europe on the way to Eurointegration and its first consequences' (pp. 130-158) in: Betlij – Borodina (ed.) – Borodin – Popova – Prokopa – Popp – Potori – Cerova: *Ukrainian agrarian sector on the way to Eurointegration*. Kiev: Institute of Economics and Forecasting of NAS of the Ukraine.
10. Potori N. – Nyárs L. [2007]: 'EU integration experiences of the agri-food sectors in Hungary' (pp. 94-121) in: *Changes in the food sector after enlargement of the EU*. Warsaw: Institute of Agricultural and Food Economics – National Research Institute.
11. Potori N. – Udovecz, G.[2005]: 'An assessment of the short-term impacts of EU integration on Hungarian agriculture', *Studies in Agricultural Economics*, no. 102, pp. 5-14. Budapest: Research Institute for Agricultural Economics (AKI).