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Agricultural markets in the new member states – development of agricultural production in Hungary

Abstract: *The paper analyses the impact of EU enlargement on the agricultural markets in the 10 New Member States (EU-N10). A high level of integration of markets of the EU-25 was achieved prior to enlargement. 65% of all agricultural exports of the EU-N10 and 69% of all imports went to EU-25 destinations over the last years prior to accession. The intensity of production and the productivity are relatively low in the EU-N10 as compared to the EU-15. It means that agricultural potential can be only gradually used and structural adjustment will continue. The market impact of enlargement seems to be positive for the EU-N10. Agricultural production will stabilise in the area of cereal and meat production. Agricultural markets will benefit from the trade creation effects of the integration into the single market and from the support of the CAP.*

Competitiveness of arable crop production in Hungary is out of question; however, its structure is vulnerable to changes of the CAP (introduction of the Single Payment Scheme: SPS). This is particularly true for potato, tobacco, sugar beet, and tomato production. Competition between maize and other major cereal production is strongly dependent on the intervention price level. Outlook for livestock production, especially for the pork-meat, poultry-meat, and milk production is rather depressing.

Key words: *enlargement, production, agricultural market, trade, integration of markets*

Market developments after enlargement

Following a historical agreement on the EU enlargement, 10 new Member States (EU-N10) acceded to the European Union on May 1, 2004. Although the European Union has expanded its membership in the past, this enlargement is unique in terms of its scope and diversity of the number of countries, area, population and large rural sector. The EU-N10 add about 38 million ha of utilised agricultural area to the 130 million ha of the old Member States representing an increase of 30%, while production in the EU-25 increases by about 10% to 20% for most products. The EU-N10 add 52% to the agricultural work force of the EU, illustrating a low productivity as compared to the old Member states.

The Common Agricultural Policy (CAP) as applied in 2003 or planned under Agenda 2000 will never be implemented in EU-N10 countries. Farmers from EU-N10 have access to CAP market measures but direct payments (*Single Area Payment Scheme - SAPS*) will be phased in over 10 years. The Act of Accession provides for a transitional period for the progressive introduction of the CAP direct payments in the EU-N10. EU-N10 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. There is no distinction between sectors. 2/3 of direct payments are allocated for Poland and Hungary, followed by the Czech Republic and Slovakia (Table 1).

Table 1. Allocation of direct payments in the EU-N10 (Million Euro)

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Czech Republic	227.9	265.7	342.4	427.8	513.2	598.5	683.9	769.3	854.6
Estonia	23.4	27.3	40.4	50.5	60.5	70.6	80.7	90.8	100.9
Cyprus	8.9	10.4	13.9	17.4	20.9	24.4	27.8	31.3	34.8
Latvia	33.9	39.6	55.6	69.5	83.4	97.3	111.2	125.1	139.0
Lithuania	92.0	107.3	146.9	183.6	220.3	257.0	293.7	330.4	367.1
Hungary	375.4	408.7	495.1	618.5	741.9	865.2	988.6	1111.9	1253.3
Malta	0.7	0.8	1.6	2.0	2.4	2.8	3.2	3.6	4.0
Poland	724.3	845.0	1098.8	1373.4	1648.0	1922.5	2197.1	2471.7	2746.3
Slovenia	35.3	41.4	55.5	69.4	83.3	97.2	111.0	124.9	138.8
Slovakia	97.6	113.6	144.5	180.5	216.6	252.6	288.6	324.6	360.6

Source: *Official Journal of the European Union*. 30.3.2004

A large part of the funds to support agricultural policy will have to come from non-CAP funds. Implementation of the CAP in the EU-N10 will be concluded after a transition period. During the phase-in period the EU-N10 may complement 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. CNDP shall 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. Area payments granted for the new member states will reach by 2013 on average 83% of the level of the EU-15 (Table 2).

The trade policy regime of the EU-N10 has changed. External duty rates of the EU-N10 are harmonized with the EU-15; internal rates are set at zero. 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 accession barriers to trade existed, between EU-N10 themselves and also between old and new Member

Table 2. Total (SAPS and CNDP) payments granted for the EU-N10 (Euro/ha)

Country	Reference yield t/ha	2004	2005	2006	2007	2008	2009	2010	2011--2013
Czech Republic	4.20	145.7	159.0	172.2	185.5	212.0	238.5	265.0	265.0
Hungary	4.73	149.5	161.0	174.3	208.6	238.4	268.2	298.0	298.0
Poland	3.00	104.0	113.4	122.9	132.3	151.2	170.1	189.0	189.0
Slovakia	4.06	140.8	153.6	166.4	179.2	204.8	230.4	256.0	256.0
EU-N10	4.00**	138.6	151.2	163.8	176.4	201.6	226.8	252.0	252.0
EU-15	4.77	300.5	300.5	300.5	300.5	300.5	300.5	300.5	300.5
EU-N10/ /EU-15, %	83.80	46.1	50.3	54.5	58.7	67.1	75.5	83.8	83.8

*CNDP: from the national budget

**Author's estimate

Source: DG AGRI, Country Reports, 2004.

States. There are strong indications that membership has been very positive for the trade integration between the EU-N10.

The new situation of agricultural production in the EU-N10 can be considered rather positive than negative. Most EU-N10 have been able to expand trade with the EU both on the import and export side. The precise level of direct payments is one of the main concerns of farmers because of the unclear information and late decisions of most governments. Nevertheless the request for national and EU funds far outstrip the availability in most countries showing high investment activities.

Land prices have increased in the EU-N10, particularly in the Baltic countries, despite the fact that land purchases by foreigners and legal entities are generally restricted or forbidden. However, in some countries (Czech Republic, Hungary, and Slovakia) land owners that are not necessarily part of the rural population or the farming community are quite aware of the amount of payments. Strong increases of land prices or rental fees hampered investments and restructuring in some countries.

With prices in most commodities in the EU-N10 historically below EU-15 prices, accession has led to a moderate decrease in the EU-15 prices, whereas for the EU-N10, domestic prices of many commodities have increased substantially – generally for livestock, meat and dairy products.

High quality beef prices increased significantly because of sustained demand from the old Member States. By contrast low quality beef prices have continued to decline. On average, beef prices are significantly higher today than before enlargement. Domestic demand for beef continues to be very weak. Among the largest agricultural producers, prices in Poland developed particularly well, while Hungarian prices have remained rather weak or have been very volatile.

Poultry prices have increased in a number of EU-N10 due to strong export opportunities to the old Member States. Cereal prices in Hungary have been significantly lower than in the other main net exporting Member States. Czech and Slovak prices have developed more smoothly but have increased less than in other countries. That is the result of a record harvest and high transport costs to markets in the EU and third countries. Milk markets are characterised by a strong competition for high quality milk, which is in short supply (Poland, Lithuania and Latvia). The spread between low and high quality milk prices is still very high in these countries. Milk producers face continued burdens of adjustment in the dairy sector (for example in Hungary, Slovakia, Slovenia and Poland).

The situation of the food industry in the EU-N10 is rather mixed. In most countries consolidation and concentration are ongoing at an increasing pace due to foreign direct and domestic investments. The dairy industry faces strong challenges due to low standards and marketing difficulties in a number of countries. Favourable market opportunities in the EU, in particular for live animals, have helped to reduce the negative impact of diverging competitiveness of meat processors.

The CAP has not significantly affected consumers in the EU-N10. In most countries only a limited number of products – sugar, beef, pork and poultry – have experienced significant price increases. Other prices, like imported high value added dairy products, have fallen.

Development in agricultural trade of the EU-N10

The relative importance of agricultural trade declined in the EU-N10 countries over the last decade to stand at approximately 8% of total trade. The agricultural trade balance of the EU-N10 remained negative with the world and the EU-15. Trade balance of the EU-15 with the EU-N10 amounts to about 1 billion Euro. Hungary has maintained its position as a net exporter over a long time. Poland has turned from one of the largest net importer to a net exporting position since 2003 thanks to a steady growth in its agricultural exports to the world and particularly to the EU-15. All other EU-N10 countries continued to exhibit a trade deficit. The main products contributing to this trend were processed foods, especially processed fruits and vegetables, poultry meat and dairy products which benefited from the improvement of the competitiveness of the EU-N10 food industry.

Agriculture and food exports in Hungary have displayed a positive trade balance since decades bringing 3.04 billion EUR to the country in 2004. Agriculture and food imports have increased and amounted to 1.87 billion EUR in 2004. Trade surplus in this sector consistently fluctuated between 1–1.5 billion EUR over the past 10 years (Figure 1).

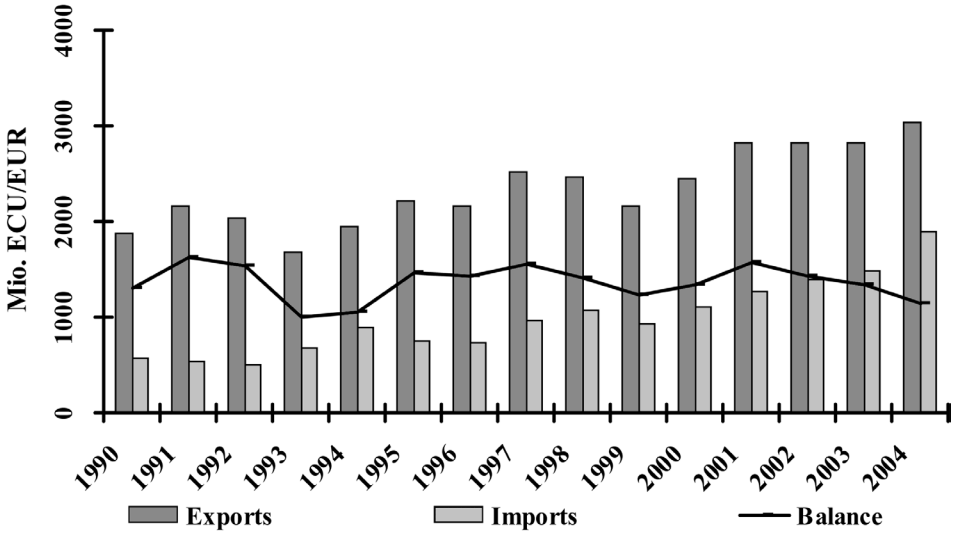

Figure 1. Agriculture and food trade
Source: Agricultural Economics Research Institute (AKI), Budapest 2004

In the next years the rate of the increase of imports will exceed that of exports but the trade balance will remain positive with a decreasing trend. The prospect of agricultural exports can even be improved by the consolidation of livestock production and by the development of commercial infrastructure.

The EU-N10 agricultural trade has been dominated by two major players, namely Poland and Hungary, with high shares for some meat products (beef meat, pig meat, poultry meat). Furthermore, over 50% of EU-N10 cereal exports to the world have come from Hungary. The export shares of dairy products have been more evenly distributed among the EU-N10 countries, with the Czech Republic, Poland and Lithuania as major exporters. The degree of integration between EU-N10 and EU-15 has increased substantially over the last decade. By 2003 the share of agricultural exports going to EU-25 rose to 66%, the share of imports coming from EU-25 destinations increased to 71%. The integration of EU-N10 to the EU-25 agricultural trade is more advanced on the import side. The most integrated EU-N10 countries with the EU-25 market were the Czech Republic, Slovakia, Estonia and Latvia with imports and exports shares of about 70–80%.

Hungarian agriculture and food products are traded mostly with European countries. The degree of agricultural trade integration between Hungary and the EU-15 was 50% in 2003. The share of exports going to the EU-25 reached 65%, the share of imports coming from the EU-25 rose to 80% 2004 (Figure 2).

The EU-15 countries have increased their trade with EU-N10 even though imports have been growing faster than exports. The leading net exporters are Netherlands, Spain and France, while Germany, Austria, United Kingdom have shown negative trade balances with the EU-N10. The most integrated EU-15

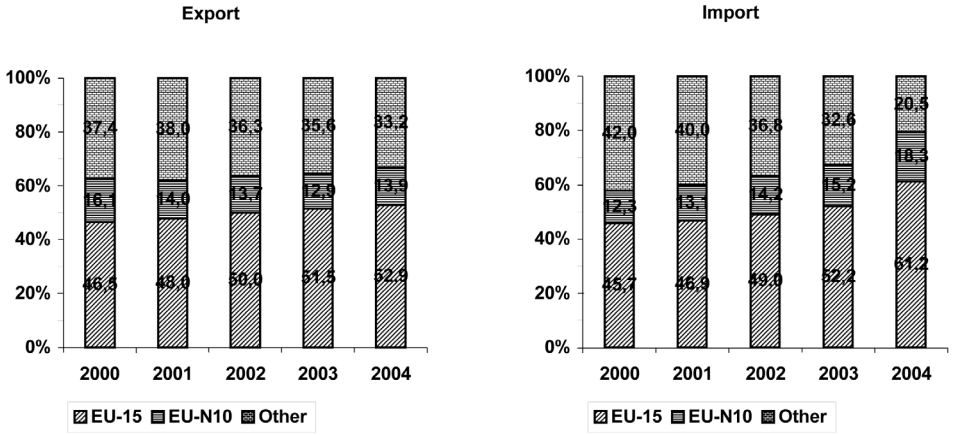

Figure 2. Integration of agricultural trade between Hungary and the EU
Source: Agricultural Economics Research Institute (AKI), Budapest 2004.

countries as regards agricultural trade with the EU-N10 are Austria and Finland with export shares of 7.3% and 5.2% as well as import shares of 12.9% and 7.3% respectively.

For the cereals, meat and dairy sectors, about 80% of all EU-N10 imports has come from EU-25. By contrast, the EU-N10 share of exports to EU-25 has been more diverse across countries and products (Figure 3).

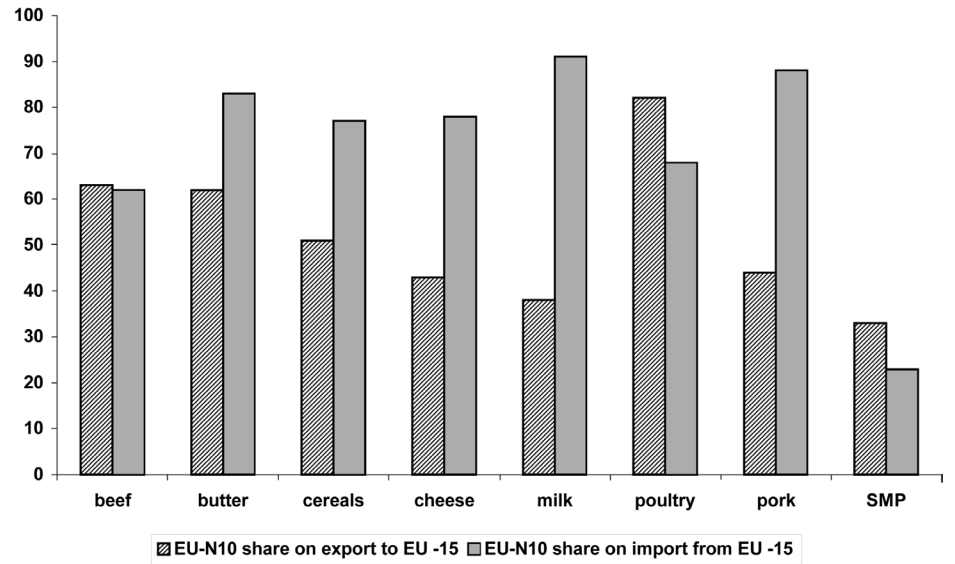

Figure 3. Integration of the EU-N10 in the EU-25 market (selected products)
Source: European Commission, DG for Agriculture Prospects for Agricultural markets and income 2004–2011 for EU-25, December 2004, Brussels.

The EU-N10 contributes to about 20% (55–60 million t) of the cereal production on 30% (15.5 million ha) of the cereal area of the EU-25. Poland is the largest producer with 50% share of the cereal production of the EU-N10, followed by Hungary, the Czech Republic, and Slovakia. Of these countries, Hungary has been the only significant exporter of cereals with 3–4 million tons per year with self-sufficiency rate: 150–200%. The other EU-N10 have remained close to self-sufficiency but exports increased in recent years in Poland, Lithuania and Latvia.

Over the last decade EU-N10 exports stagnated at around 3 to 5 million tons depending on the harvest, with similar level of imports. In 2004 exports reached only several million tons after a record harvest of 60 million tons. Cereal consumption has declined stagnating around 50 million tons per year.

Feed demand is projected to increase despite the gradual improvement in the feeding efficiency in the EU-N10. The increased feed demand is expected from higher poultry, egg, beef production and the more intensive dairy production after enlargement. For each ton of meat produced, about 50% to 80% more cereals are used in the EU-N10 than in the EU-15 on average. In 2002 5.4 tons of cereals were used for the production of 1 ton of meat and eggs in the EU-15, while the ratio was as high as 8 in the EU-N10. This difference of 50% will decline thanks to changing prices, increased use of protein feed and higher feed technology. The higher level of cereal use for feeding as compared to the old Member states should remain an important base for cereal markets in the EU-N10.

The integration of cereal markets in the EU-N10 is quite advanced. Most of the imports of the EU-N10 come from countries of the EU-25. Over the years, more trade integration can be expected on the export side, in particular in EU-N10 with a low level (45%) of trade integration on the export side: Slovenia, Lithuania, Poland, Cyprus, Hungary and Malta (Figure 4). The net exporting countries with low trade integration would benefit from these developments. The net importing countries of the EU-N10 should gain from lower feed cereal prices.

However, market prospects appear somewhat clouded for Hungary, the Czech Republic and Slovakia as high transport costs prevent the competitively produced cereals in these regions to reach markets in the EU as well as third countries. In Hungary producer prices are foreseen to remain lower than intervention prices. These cereals could gain regional market share because Hungarian cereal feed prices seem to be regionally competitive. The expected low level of regional cereal feed prices would then contribute to the stabilisation of cereal markets by the expansion of cereal-fed intensive livestock production, in particular pork production.

The production of soft wheat in the EU-N10 is expected to expand due to favourable price conditions. Production reached 24 million tons in 2004 but

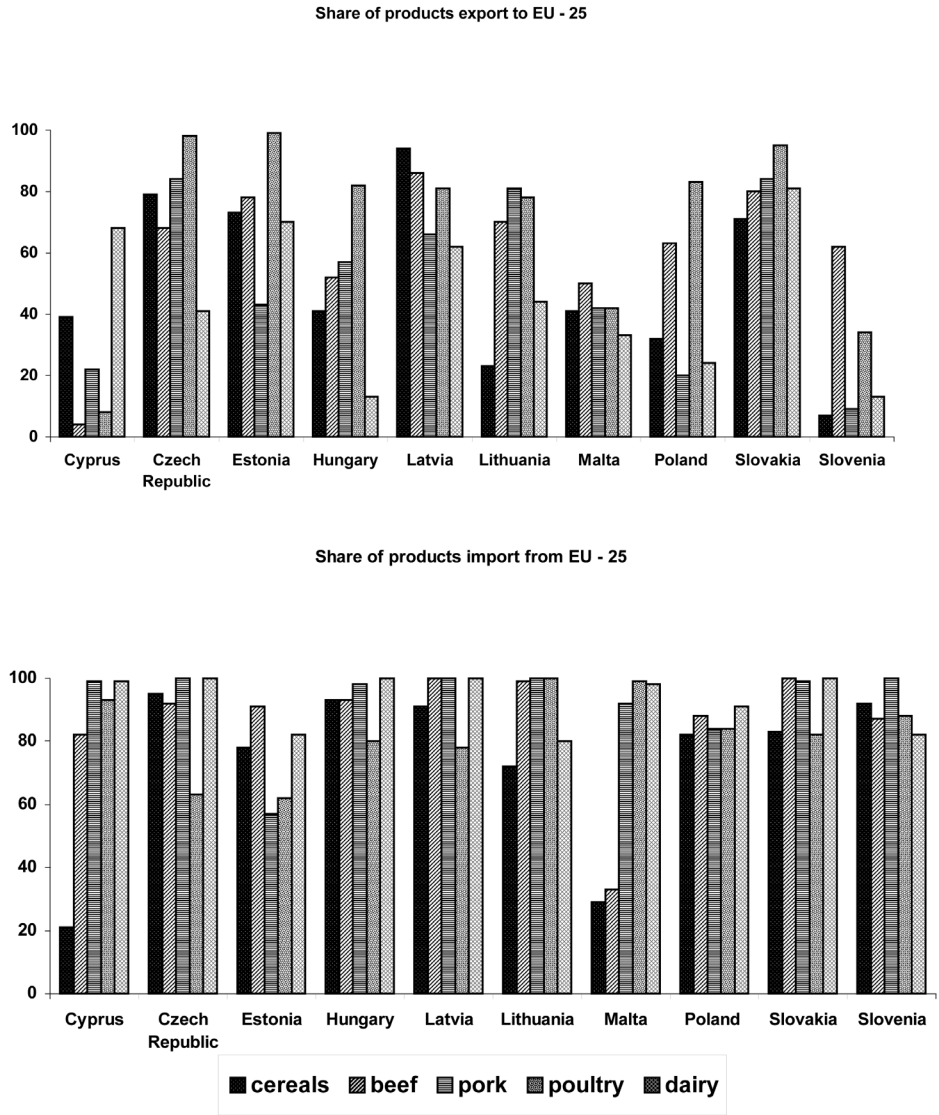

Figure 4. Trade integration of major agricultural markets of the new Member States with EU countries in 1999-2003.
Source: European Commission, DG for Agriculture Prospects for Agricultural markets and income 2004–2011 for EU-25, December 2004, Brussels.

under normal weather conditions and increasing yield, the production level should reach 22–23 million tons over the next years. The introduction of mandatory set aside after the running out of the SAPS should reduce production by 0.6 million tons owing mainly to the decrease in area in Hungary, the Czech Republic and Slovakia.

The largest soft wheat producing country in the EU-N10 is Poland with a production of 9 million tons on average. Poland has become a net exporting country only recently and favourable market conditions for soft wheat could develop in

Poland an export potential of 1.5 million tons, with imports at about 0.5 million tons. Poland will be marginally affected by mandatory set aside in case of an expected continuous expansion of production. Hungary will continue to export 2 million tons, which would decline by 0.2 million tons due to the introduction of mandatory set aside. Hungary will remain the largest exporter of soft wheat in the EU-N10. Production level in Hungary could reach 4 million tons, with a domestic consumption of 2.5 million tons (of which 0.8 million tons for feed use). The expansion of feed wheat will be constrained by the increasing competitiveness of maize. The production of soft wheat will also slightly increase in the other EU-N10. A higher production and use should come from the Czech Republic, Slovakia, Latvia and Slovenia.

Domestic use in the EU-N10 will increase from 18 million tons to 20 million tons due to the increase of human consumption and industrial use. Exports of the EU-N10 could stabilise at 5 million tons and about 2 million tons of imports are expected.

12 million tons of maize was produced in 2004 in the EU-N10. With domestic use at 9 million tons, exports should have reached 3–4 million tons. The relatively high transport costs in the maize production regions has left producer prices significantly below those price observed in the EU-15 slowing down export opportunities. Production therefore would stabilise at around 11 million tons. The pace of production growth will be reduced when set aside is implemented, leaving production at 10 million tons.

Competitive maize prices can stimulate domestic use from the current 9 million tons to 10 million tons per year. Feed maize will benefit from the increase in livestock production and from the increasing substitution of barley in total feed demand. Export opportunities would exist for 2 million tons, while imports are expected to increase as well. Higher trade will take place with both EU and third countries.

Hungary is the largest producer of maize among the EU-N10 with a production of 8 million tons in 2004, which represented 66% of production in the new Member states. The second largest producer was Poland with 2.2 million tons. Hungary is also the largest consumer of maize with 4.8 million tons in 2004, followed by Poland with 2.1 million tons. Slovakia and the Czech Republic are the third and fourth largest producers and user of maize with around 0.7 and 0.6 million tons of production and consumption respectively. The Czech Republic as a traditional net importer of maize (0.1–0.2 million tons per year) will expand maize feed use due to the opening of markets and the expansion of poultry and pork production.

Hungarian cereal harvest doubled in 2004. As a result of the extraordinarily favourable weather conditions it was a record harvest, 16.7 million tons of cereals were harvested in 2004. The outstanding harvest caused serious difficulties in storage because 1.5 million tons of cereals could be stored only in emergency

storage facilities. A good harvest has translated into lower producer prices. In fact, Hungarian market prices are the lowest among the EU-N10. Farmers expected a more stable cereal market. Certainly cereal farmers need to invest into own stock capacities in order to benefit better from the CAP. Export opportunities for maize, and wheat appears less optimistic. Wheat and maize prices have remained below intervention price level.

The Hungarian farmers offered over 4 million tons of cereals for intervention because there have not been buyers for the price of EUR 94–100/t requested by the producers. Both domestic and foreign buyers find that price too high. Hungarian cereal production is not competitive on the foreign markets, not around the intervention price as expected by the producers. The costs of transport up to the sea amount to EUR 20 per ton at least.

Both the exchange (Budapest Commodity Exchange: BCE) and the free market prices have remained deeply below the EU intervention price level (EUR 101.31/t), since the harvest in 2004 because producers less and less trusted in the success of the intervention. Intervention of cereals has begun too late (on March, 2005) and is expected to be finished by the end of July 2005 (Table 3).

Table 3. Futures Quotations for Hungary, Cereal Section of BCE

Commodity	Purchase quotations			Settlement price on 31st March for May	Settlement price on 31st March for May
	May	August	Dec.		
		HUF/t		HUF/t	US$/t
Milling wheat	23 000	22 200	23 200	23 000	120.40
Feed wheat	–	–	–	21 400	112.00
Feed barley	–	20 400	–	22 700	118.80
Maize	23 000	23 600*	23 200	22 600	118.30

Exchange rate: HUF 191/US$

Source: BCE

After a bumper harvest of 284 million tons in 2004, 10.5 million tons of cereals were offered to public stocks in the EU-25 until April 2005 bringing the total level of cereals in the intervention stocks to 13.5 million tons. Of the total offers to intervention, 60% concern the EU-N10. The export tenders of the Commission favour cereals located in areas with relatively easy access to export harbours and have not managed to relieve the situation in the EU-N10 and other landlocked countries, where the surplus situation is particularly difficult. Making intervention storage space available is a national competence; the lack of intervention storage in the EU-N10 is serious, leading to important market disturbances in the whole of the EU. Therefore the Commission decided in March 2005 to sell the following intervention stocks of wheat: Hungary: 320,000 tons, Czech Republic: 300,000 tons, Poland: 93,084 tons and Austria: 80,663 tons.

Hungary will remain the main exporter of maize. Set aside will reduce Hungary's production by 0.5 million tons. Domestic use will expand from 4.8 million tons to 5.2 million tons. Hungary's production will benefit from the opening of regional markets and better export conditions due to accession.

The Hungarian domestic market of cereals is characterised by the decreasing use of cereals for food and feed, and by the increasing output of feed cereals. One of the consequences of the introduction of the SPS will be a decreasing production of cereals due to the then compulsory set aside of lands, which is not in effect currently under the SAPS. Increasing production is expected in regions where production growth is accompanied with improvement of production efficiency as well. Hungarian cereals are competitive only within a limit of certain distances of transportation, primarily by shipping cereals on the Danube River. The revenue position of maize production is considered to be more favourable than wheat production. The EU is a net exporter of wheat, therefore Hungarian wheat producers will be kept under the pressure of decreasing producer prices or they have to satisfy special consumer needs (high quality wheat). Top priorities of cereal production are the improvement of storage and handling facilities, quality insurance, and production efficiency (Popp *et al*. 2004).

The forecasted decrease of the number of livestock (pork, poultry and dairy production) will decrease the annual feed-use of cereals by 2 million tons which may lead to a significant domestic oversupply of cereals and to the heavy intervention of maize, which may lead to decreasing cereal prices. In the EU-25 Member States the self-sufficiency rate of maize is around 96–100%. Hungarian maize seems to have better chances to be sold in the single market of the EU than wheat, which will encourage the improvement of the commercial infrastructure needed for the intra-EU trade.

Meat and dairy markets

A strong growth in per capita consumption of meat and milk products led to a significant market growth in the last decade. Per capita consumption of meat and eggs in the EU-N10 is at 80% of that in the old Member States. Due to the favourable development assumed for household incomes meat and egg consumption will increase in the EU-N10. The cereal-fed livestock production would benefit from favourable regional feed cereal prices as well as from opportunities to expand market share of poultry meat and egg on the EU markets. Milk production and dairy markets would further stabilise.

Beef market

The EU-N10 showed a decline in both beef production and beef consumption during the last decade. In 2004 production reached 0.65 million tons. Beef meat consumption will stabilise at 0.6 million tons thanks to increasing income levels and a better availability of quality beef meat. Production is expected to slowly decrease again and stabilise around 0.6 million tons.

The EU-N10 already reached a high level of market integration prior to enlargement. Imports almost exclusively came from EU-25 countries. This integration is lower on the export side. Poland, the largest exporter of beef among the EU-N10, should benefit most in quantitative terms from the increasing export opportunities in the old Member States. However, strong relative gains in exports should also be observed for Lithuania, Hungary and the Czech Republic.

The development of beef markets and beef prices in Poland will depend on the export opportunities to EU countries since domestic consumption will stagnate. A similar development will be observed in the Baltic countries, the Czech Republic, Slovakia, Hungary and Slovenia.

Pork market

Pork markets in the EU-N10 were volatile over the last decade, though domestic consumption expanded to 3.3 million tons in 2004. Production which served mainly domestic consumption followed closely. Exports and imports amounted ton 0.3 million tons in recent years.

Trade integration of pork markets in the EU-N10 shows wide divergences. Imports came predominantly from EU-25 countries since most countries imported more than 80% from these destinations. The export side appears less integrated than many other markets. The Czech Republic, Lithuania and Slovakia exported more than 80% of their pork to EU-25 countries. The largest pig meat producer of the EU-N10, Poland exported just 20% to EU-25 destinations and depended heavily on the Russian markets. Hungary another large pork producer exported about 55% of its exports to EU-25 countries. The revenue situation of the pig sector will improve slightly in 2005 but investments necessary for the fulfilment of EU requirements (meeting standards) will further increase production costs. Hungarian pork production has a disadvantage in the field of coordination of production and markets, and the concentration of production in comparison to the most important pork producer member states leading to a decreasing self-sufficiency rate.

The attractive market conditions in the EU-25 should lead to further trade integration on the export side over the medium term. This increased market integration should reduce the volatility of producer prices recorded prior to accession and improve market conditions. Investments in pork production, in particular in Poland, the Czech Republic and Slovakia have started to change the competitiveness of the sector. Investments and favourable feed prices suggest that pork production could expand and the competitiveness of the production and processing sectors could increase.

Under these conditions, production of pork in the EU-N10 could increase from the current level of 3.3 million tons to 4 million tons. New production technologies will lead to lower production costs thanks to improved feeding efficiency. Consumption is expected to rise from the current level of 3.3 million tons to 3.6 million tons in the next years.

Poultry market

During the last decade the demand for poultry meat nearly doubled and increased from 0.9 million tons to 1.7 million tons. These market as well as good investment conditions led on average to significant gains in productivity and competitiveness as compared to the old Member States. Production followed the increase in consumption and some export markets were found in the old Member States.

Trade integration of markets prior enlargement was already very high. More than 80% of EU-N10 exports went to EU-25 countries. The import markets were similarly integrated. After accession the favourable production and investment conditions in many countries and the increasing demand should further expand production from 1.7 million tons to 2.5 million tons over the next years. Consumption will increase and exports could expand to 0.6 million tons. The most important destinations for imports will remain Germany, Austria and Italy.

Dairy market

Production of milk in the EU-N10 has declined gradually and reached 20 million tons in 2004, deliveries and registered direct sales accounted for 17 million tons which is not expected to increase in the next years (Figure 5). The marketing quotas associated with enlargement restrict the growth in milk production in the EU-N10, resulting in a decline in milk production. Even at these reduced production levels, total milk output remains above the total marketing quota for the EU-N10, reflecting continued relatively high on-farm use in some countries. The bulk of the change in milk production is accomplished through declines in dairy cow inventories.

In 2004 the largest producer of milk in the new Member States was Poland with 9 million tons, followed by the Czech Republic with 2.8 million tons, Hungary with 2 million tons, Lithuania and Slovakia with 1.1 million tons each (Table 4).

Table 4. Milk quotas in the EU-N10 in thousand tons

	Basic milk quota	2004/05	New quotas from 2008/09
Cyprus	145.2	145.9	150.3
Czech Republic	2 682.1	2 695.6	2 831.8
Estonia	624.5	627.6	668.2
Hungary	1 947.3	1 957.0	2 058.2
Latvia	695.4	698.9	753.0
Lithuania	1646.9	1 655.2	1 762.5
Malta	48.7	48.9	50.4
Poland	8 964.0	9 008.8	9 693.9
Slovakia	1 013.3	1 018.4	1 076.3
Slovenia	560.4	563.2	596.3
EU-N10	18 327.9	18 419.9	19 640.9
EU-15	118 892.7	119 374.1	122 741.8

Source: DG AGRI, Brussels

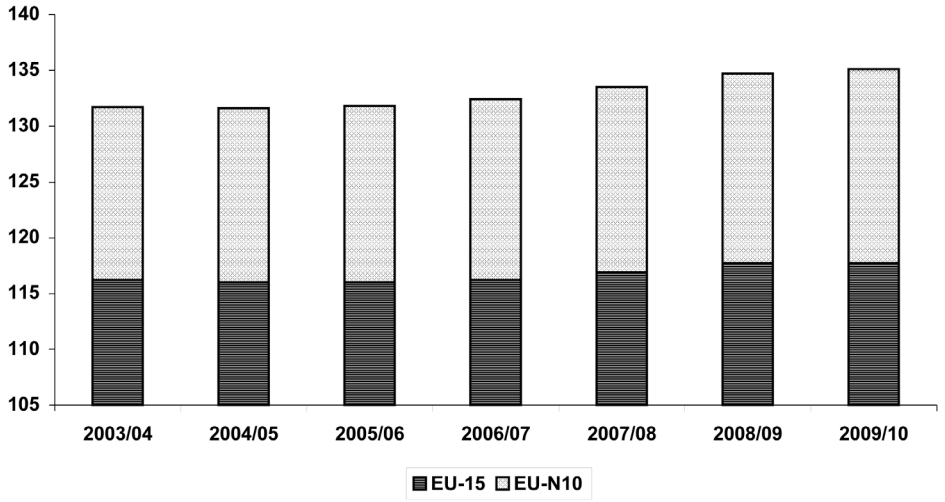

Figure 5. Deliveries in the EU-25 (million tons)
Source: EU-Osterweiterung, Wie reagieren die Märkte für Milch und Milchprodukte, Erhard Richarts; ZMP, Bonn, 2004

The structure of production varies significantly between countries. In a number of new Member States like Poland, Latvia, Lithuania and Slovenia the subsistence sector represents an important part (10–20%) of milk production. Market oriented milk producers have to operate and compete for markets and resources alongside this subsistence sector. Other countries like Hungary, the Czech Republic, Estonia, and Slovakia are characterised by commercial milk production in larger units. Market-oriented milk production will expand with the ongoing pace of investments. Subsistence production will continue to decline but will leave additional markets of liquid milk for domestic production.

Trade integration is not very high on the export side but well integrated on the import side. The large milk producers, Poland, Hungary, Lithuania, the Czech Republic, and Slovakia export to other destinations than EU-25 countries. Further increase in market integration on the export side will depend on the competitiveness of products such as cheese.

Development of production cost and revenue in Hungary

Cereals, oilseed and protein (COP) crops in Hungary

According to the calculations of the Agricultural Economics Research Institute in Budapest the revenue (per hectare) of wheat production increased in the year 2004-primarily due to the good weather conditions and direct payments (Popp *et al*. 2004). As a result of the increasing input cost and the decreasing yield of production, revenue of wheat production will decrease in the year 2005 (Figure 6).

In 2004 the revenue of maize production per hectare was higher than that of wheat production due to the higher yield but it will decrease in 2005 but the area of maize production is expected to increase further (Figure 7).

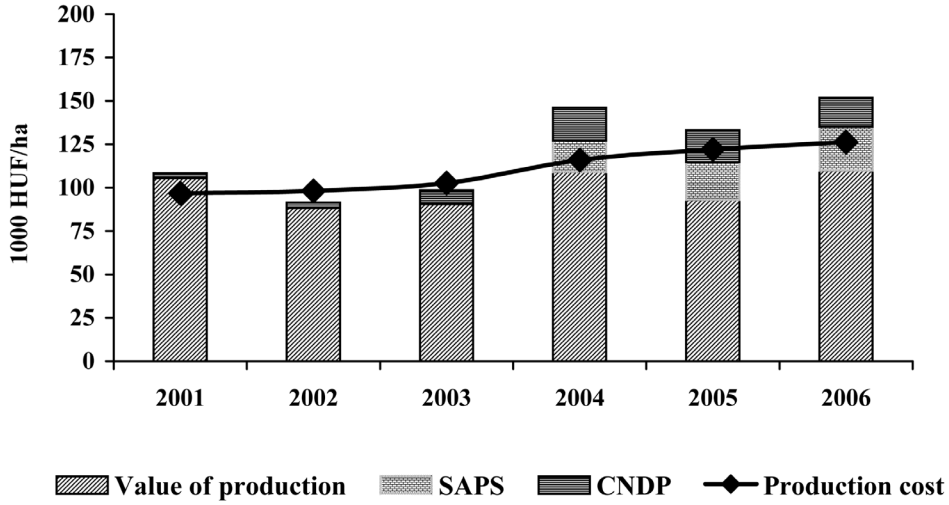

Figure 6. Wheat production cost and revenue in company holdings

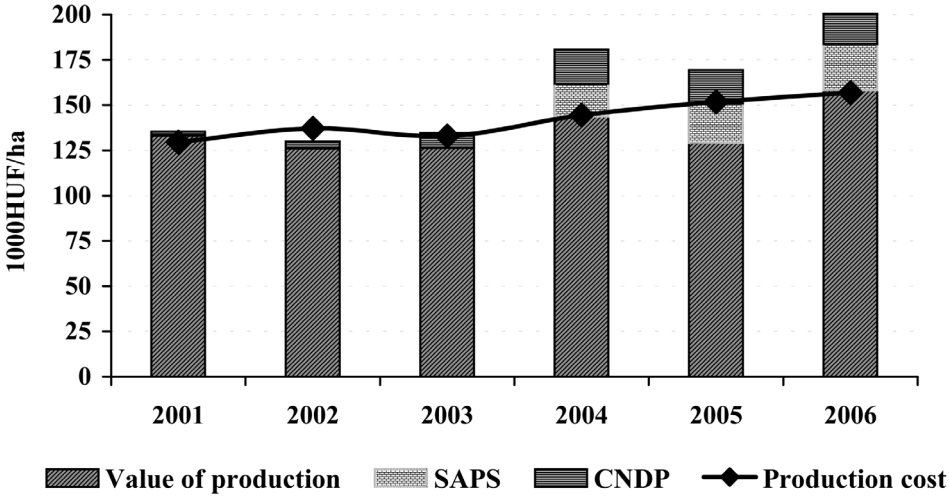

Figure 7. Maize production cost and revenue in company holdings

In the oilseed production there is a strong demand for the improvement of quality, in the production of rape the stabilisation of yield is of high importance. The self-sufficiency rate of sunflower seed and rapeseed in the EU-25 will be way below 100% in the future, the marketing prospect of Hungarian oilseeds primarily that of sunflower-seed seem to be favourable in the mid-term (Figure 8). The rate of production increase of bio-fuel is lagging behind the target of the EU, which also contributes to the expected moderate growth of rape production (Figure 9).

Due to the high yield the revenue of sunflower seed production increased in the year of 2004. However, in the year 2005, due to the development of crop-rota-

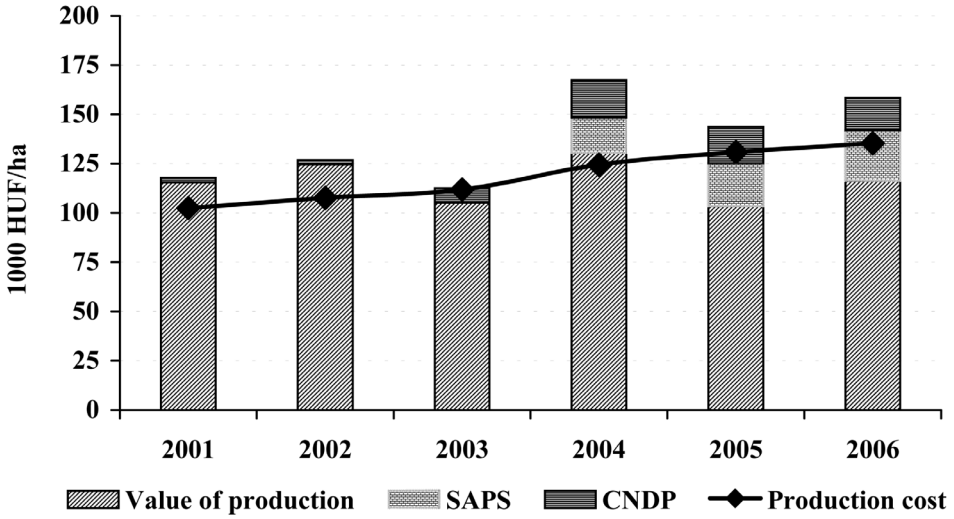

Figure 8. Sunflower production cost and revenue in company holdings

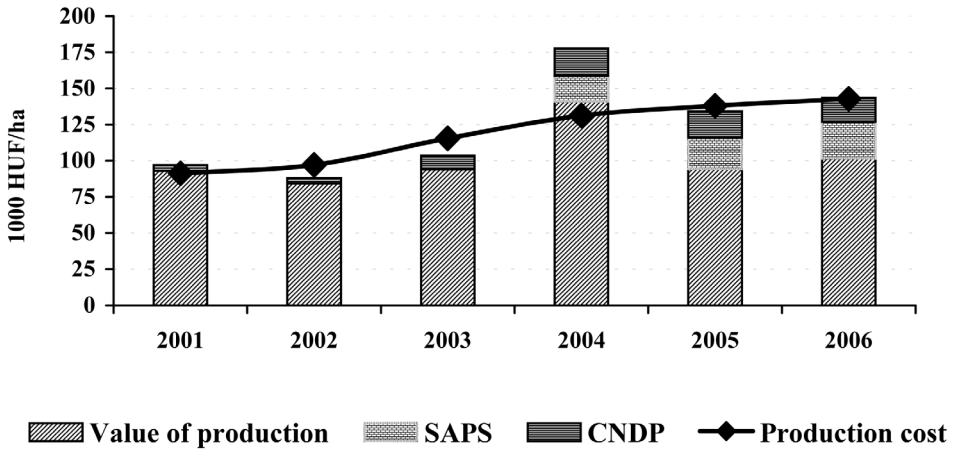

Figure 9. Rapeseed production cost and revenue in company holdings

tion the production area of sunflower will decrease, which may result in increasing producer prices.

Sugar beet

Sugar beet producers do not enjoy direct payments in the EU. Under the SAPS Hungarian producers however, are entitled to area payments. Thanks to the high intervention (minimal) prices of sugar in the EU, the revenue of sugar beet production in Hungary will significantly increase. This favourable tendency will change with the implementation of sugar reform. The reform will lead to decreasing producer prices in the EU and to lower custom tariffs. The revenue of sugar beet production will decrease in the future and the concentration process of sugar production will be speeded up (Figure 10).

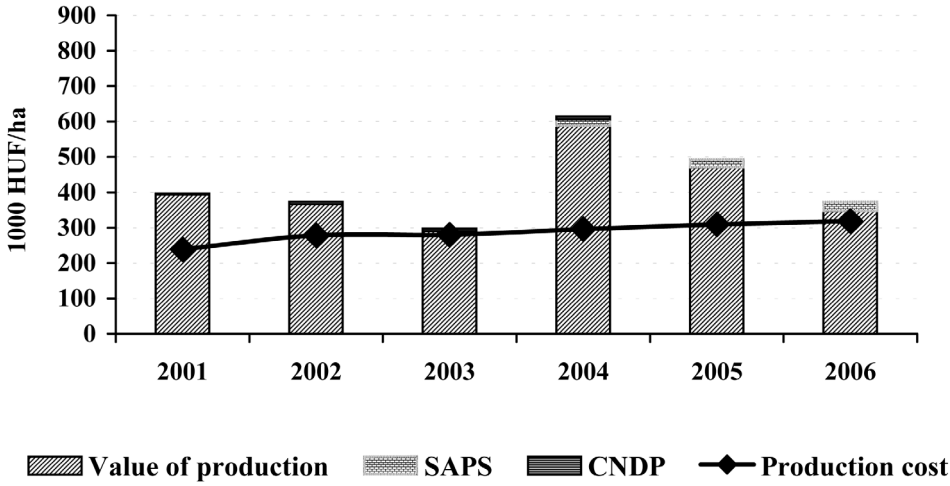

Figure 10. Sugar beet production cost and revenue in company holdings

Horticulture

Under the SAPS domestic fruit and vegetable producers are entitled to area payments (direct subsidies). The long-term marketing prospects of processed fruit and vegetables products can generally be characterised as positive. Hungary has the opportunity to maintain and even broaden its market share in the single market of the EU. Priorities of the sector are the development of post harvest infrastructure, technology, modernisation of orchards, the wide scale utilisation of rural development programs (environmental programs), and the support of Producer Organisations (PO's).

According to the revenue calculations, the revenue of apple production in 2004 deteriorated due to decreasing producer prices but producer prices and the revenue position of the sector will improve in 2005 (Figure 11).

Tomato producers in the EU receive 34,5 EUR/t processing aid in case they are members of a Producer Organisation. This kind of subsidy is tied to quotas allocated member states. The quota of Hungary is 131 000 tons a year. The revenue of tomato production increased in the year 2004 but will decrease in 2005 due to increasing input costs. The improvement of the revenue in tomato production is the result of the subsidy granted to tomato for processing and the direct payments granted under the SAPS (Figure 12).

In the EU-15 wine-producers do not receive direct subsidies. At the same time Hungarian grape producers are granted area payments (direct subsidies) under the SAPS. Hungary did not experience an increase of producer prices after Hungary's accession to the EU, since surpluses of wine have been accumulated in the past years, furthermore a sharp competition can be expected from third countries. The revenue of wine production will gradually decrease (Figure 13). The main objective of the sector is the modernisation of production and processing,

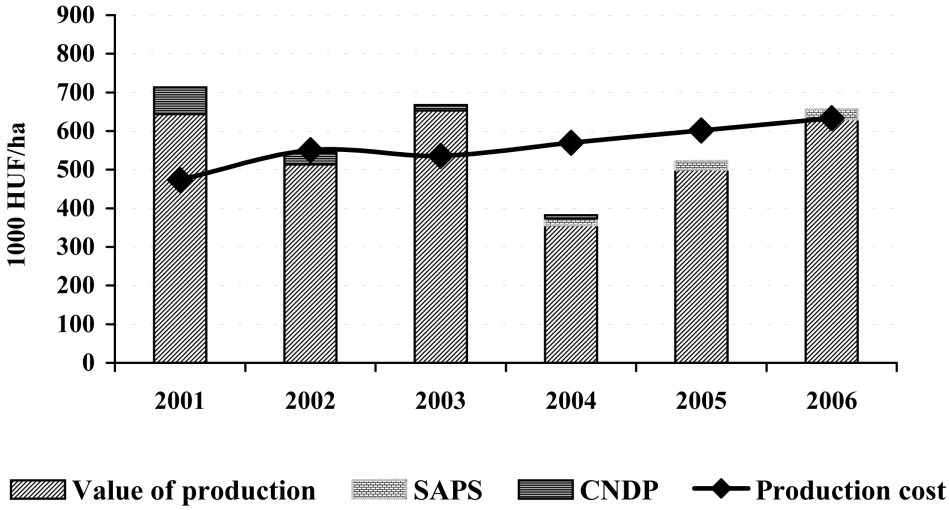

Figure 11. Apple production cost and revenue in individual holdings

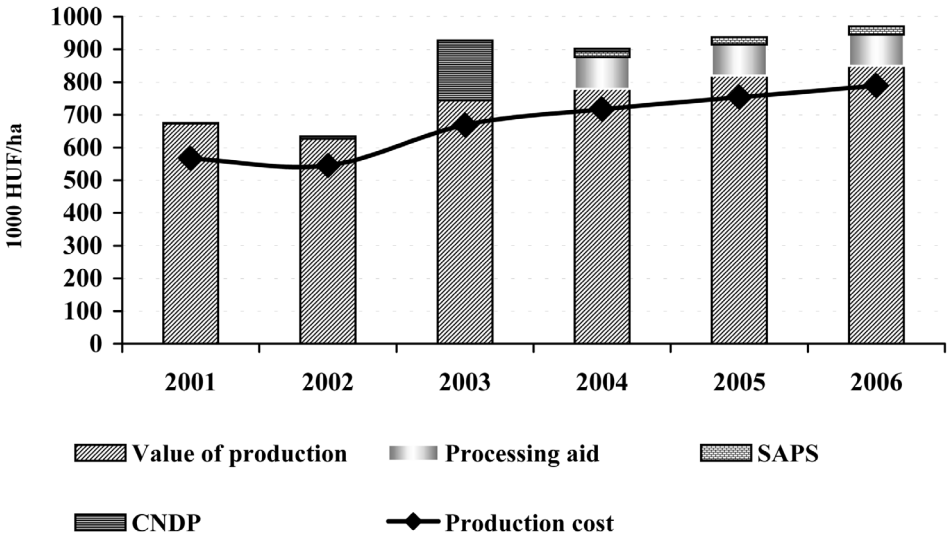

Figure 12. Tomato production cost and revenue in individual holdings

the support of producer groups in order to increase their bargaining power on the market.

Livestock production

In the livestock sector beef and ewe Hungarian producers receive direct subsidies from the EU and CNDP. In addition to that fodder production (forage area) is supported by area payments (SAPS). For silo-maize production CNDP is granted too. Fodder for cattle and ewe production is generally not marketed but used on the farm concerned so area payment of forage area decrease the cost of

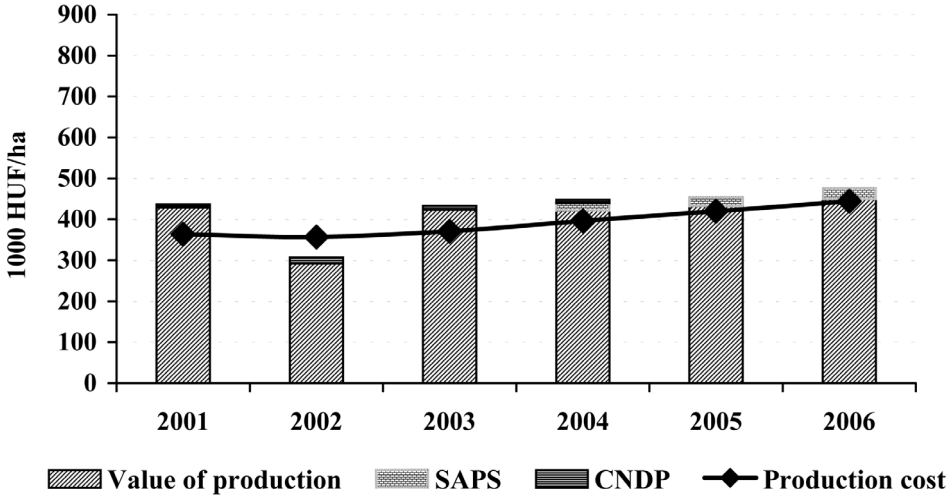

Figure 13. Grape production cost and revenue in individual holdings

fodder production on the farm. Area payments granted to fodder producers are taken into consideration in the calculation of revenue of milk, beef and ewe production.

The revenue of beef production increased significantly in the year 2004 and will improve further in 2005 due to higher producer prices in the EU, the CNDP and the area payments (forage area) under the SAPS (Figure 14).

Small milk producers may switch to beef production in the hope of generating higher revenue than in milk production (double purpose breed of "magyartarka") The introduction of the SPS may influence beef production because sub-

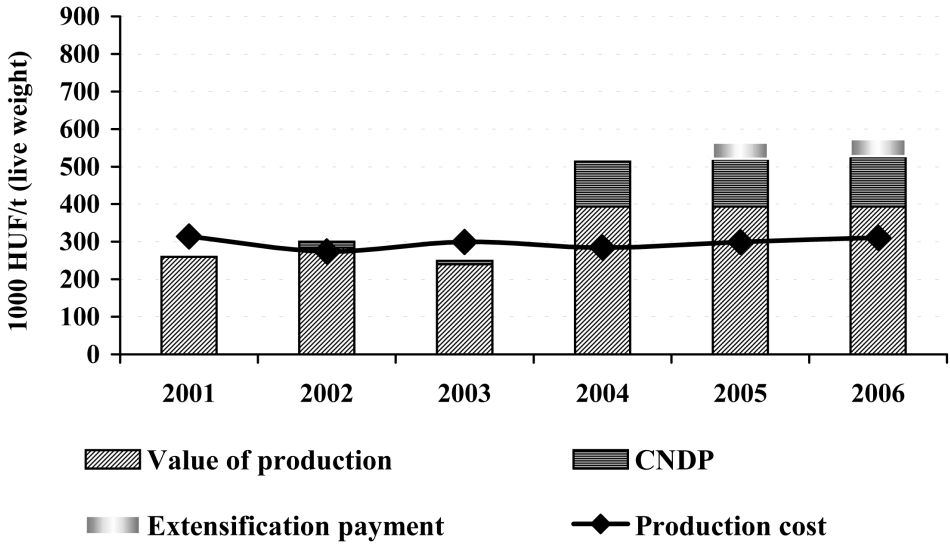

Figure 14. Slaughter bull: Cost and revenue in company holdings

sidy will be decoupled from production (options for member states). As a consequence of the introduction of the SPS beef production will decrease.

Milk producers suffered in 2004 due to increasing production costs and decreasing producer prices. The revenue of milk production will improve by the year 2005 due to the increasing milk premium. Output of milk is projected to decrease in the short run (Figure 15).

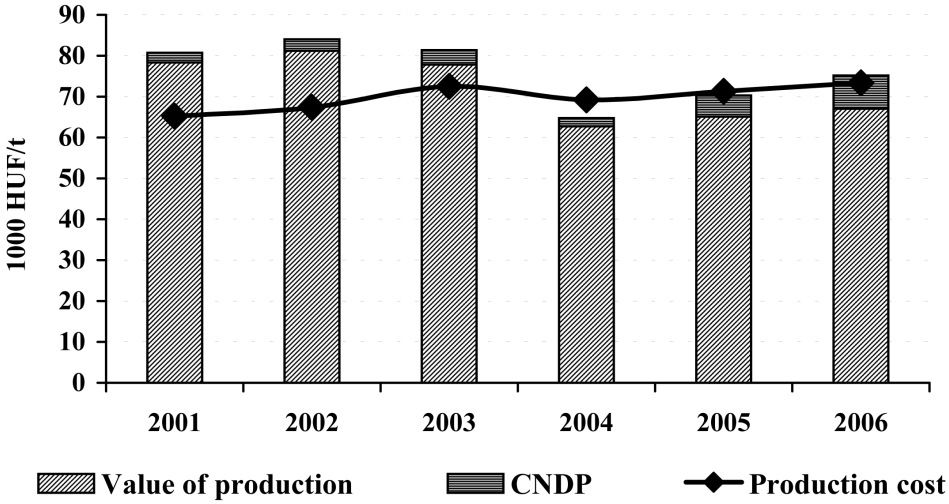

Figure 15. Milk production cost and revenue in company holdings

The development of the domestic dairy sector will be primarily determined by the development of coordination of production, market and consumption of dairy products. They have to compete even at the domestic market against member states with higher level of technology and lower costs of production.

Ewe breeding was profitable in the year 2004 due to the NCDP and SAPS (grassland). With increasing production costs the revenue position of the sector will deteriorate in 2005 (Figure 16). The revenue position in the future will be determined by the development of meeting standards (animal welfare) and production cost (increasing rental fees for grassland). Restructuring of production and processing is extremely important.

Pork-meat producers suffered a loss in 2004. The revenue situation of the sector will improve slightly in 2005 but investments necessary for the fulfilment of EU requirements (meeting standards) will further increase production costs (Figure 17). Hungary has a disadvantage in the field of coordination of production and markets, ant the concentration of production in comparison to the most important pork producer member states.

The Hungarian poultry sector closed in 2004 its poorest year of the past decade. The major part of national subsidies assisting the sector came to an end, while

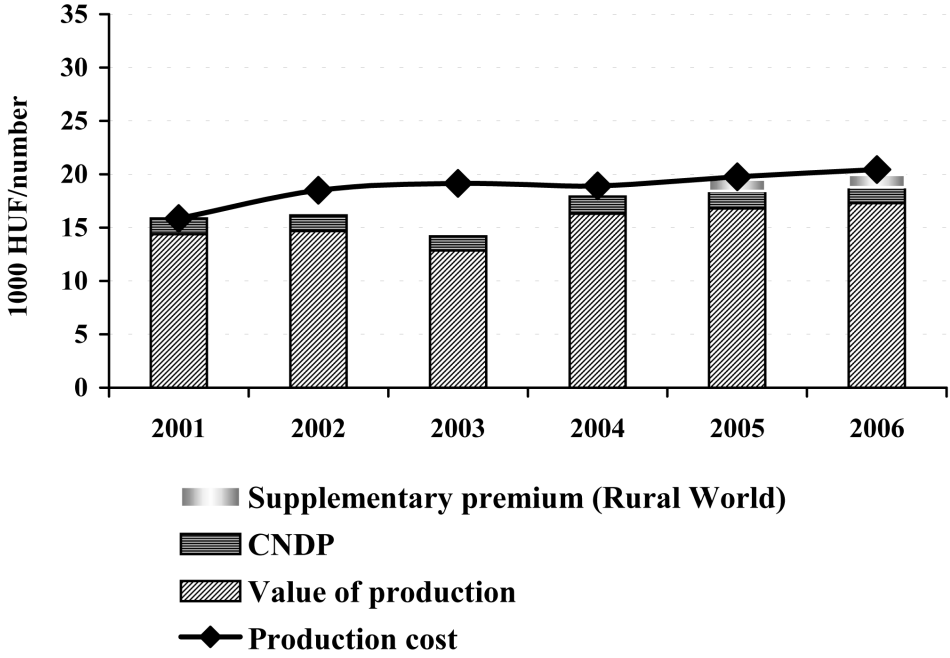

Figure 16. Ewe: Cost and revenue in individual holdings

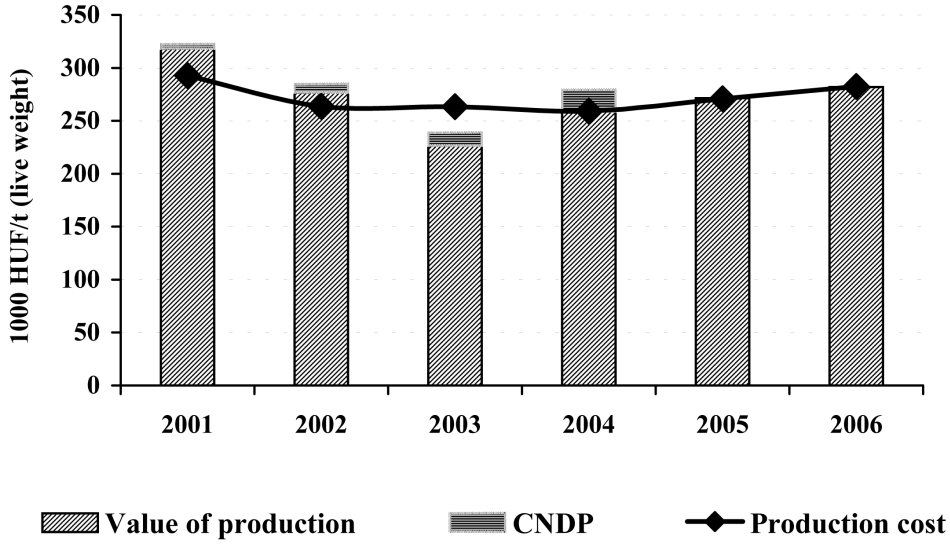

Figure 17. Pigmeat production cost and revenue in company holdings

cheap South-American poultry meat has arrived also in Hungary. Both turkey and water-fowls have suffered losses but neither broiler-chicken production, nor processing has brought significant profit. Poultry meat imports have increased at a never seen rate, and this trend is to strengthen even further in 2005 as a result of which several thousands of jobs may cease to exist in the poultry sector.

The revenue situation of the poultry sector is similar to the pork sector. The introduction of the EU regulations (meeting standards) and the decreasing protection of market access (lower tariffs, imports from third countries) affected poultry-meat production in a negative way. Poultry-meat producers will suffer losses in 2005 as well, and meeting standards of animal welfare will further increase production costs (Figure 18).

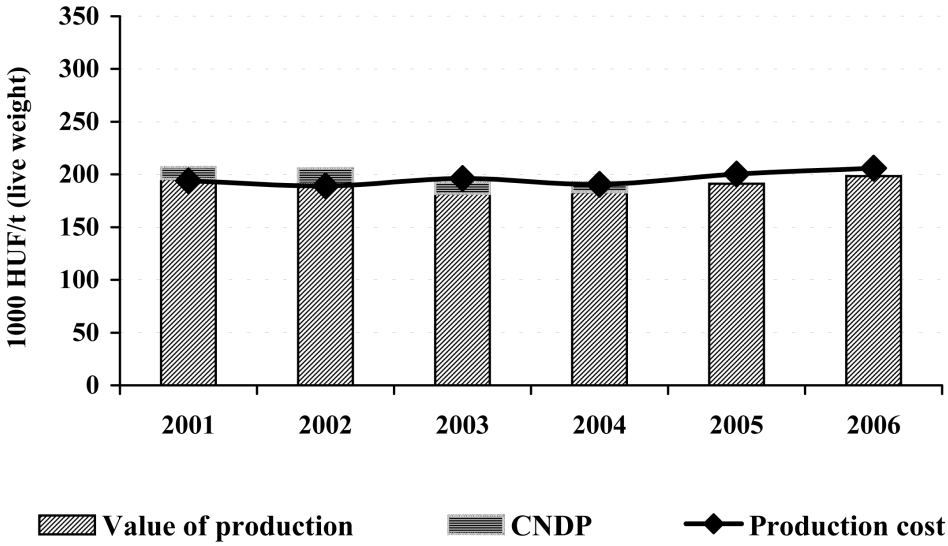

Figure 18. Broiler production cost and revenue in company holdings

The forecasted decrease of the number of animals in critical situation (pork, poultry and dairy production) will decrease the annual feed-use of cereals by 2 million tons, which may lead to decreasing cereal prices.

Due to the sharp competition in the EU small scale producers and producers unable to meet community requirements (standards) will be forced to give up agricultural production. Decreasing production in sectors concerned may lead to decreasing output of the processing industry too so the creation of alternative income sources in regions concerned is of great importance.

Conlusions

Despite the increasing integration over time, markets in the EU-N10 appeared to be limited as regards the ability to absorb and stabilise a volatile agricultural production. This had a particular effect on Hungary as the largest exporter and on Poland the largest producer of agricultural commodities of the EU-N10.

In Poland producer prices in agriculture generally have developed well. Investments have increased both in the agriculture and in the food industries. However, due to rapidly changing economic and institutional settings it is doubtful for farmers whether the conditions would continue to be that favourable.

Both the value of agricultural exports and imports has increased in Hungary and in the last years. The rate of the increase of imports will exceed that of exports. Although agricultural trade balance will still remain positive with a decreasing trend. The development of the HUF/EUR exchange rate will have a significant impact on the development of agricultural production and trade. Hungary as a net-exporter of agricultural commodities imposes additional challenges to the downstream sector. Processors and traders specialised on crops as well as fruits and vegetables use their organised market power to put pressure on producer prices. The lack of competition in the downstream sector may have the consequence that restructuring costs might be imposed on farmers. Farmers have been disappointed so far due to the short-term development of markets and the lack of information on the CAP. The uncertainty about the possibilities under the rural development plan, the final amount of the top-up of direct payments as well as the general lack of specific information in the CAP were among the biggest concerns of farmers. Crop production will generate 93–95% of the total income in agriculture; animal production will have a share of 5–7%.

There are big impacts induced by the enlargement within the enlarged European Union, especially on the EU-N10, through policy and price changes, especially in dairy, sugar, and cereal markets. Intra-trade effects on enlargement are significant. These effects are caused by changes in consumption and production rather than by changes in the intra-protection structure. The new prices faced by consumers and producers in the EU-N10 are the major cause of this reallocation. In general, consumers in the EU-N10 pay more for their food after accession. There are some changes in trade in the EU-N10 because of major domestic changes such as in beef trade. As a result of enlargement further adjustment of production and consumption will take place in the EU-25. Adjustment will include the development of sufficient export infrastructure in the cereal sectors of the EU-N10, the development of meeting standards and competitiveness of the pork and milk production as well as that of the meat processing industries.

The market impact of enlargement has been very positive for the EU-N10. Agricultural production will stabilise in the milk and dairy production and increase in the cereal and meat sectors. The EU-N10 will be able to gain additional market shares in the EU-25 in the area of cereals, poultry meat and beef. However, some market inefficiencies still exist as regards infrastructure and standards of production. An effective integration into the single market should depend partly on the development of production and marketing infrastructure and partly on the compliance of production with EU standards in a cost efficient manner.

Agricultural markets will benefit from the trade creation effects of the integration into the Single Market and from the decoupled support through the CAP. Regarding decoupling, member states are expected to implement CAP reform in different ways, therefore resulting in different degrees of decoupling. Changes in the set-aside policy in the EU-N10 will also influence the impact inducing a reduction in supply, yield growth assumptions, relative price movements of

commodities and their substitution ramifications both on the demand and supply sides, and feed use and animal number interactions. As a result of lower prices, production of wheat, corn, and barley commodities in the EU-15 will decrease slightly.

The concentration of land use has increased after enlargement, which will continue in the next years. The change of the structure of agricultural production will have an impact on agricultural employment as well. The pressure to improve efficiency will threaten even more jobs in agriculture in the future than in the past.

The duality of agriculture between market-oriented and subsistence farmers are an important phenomenon in a number of countries, in particular in Poland, Latvia and Lithuania. Subsistence farmers obtain little alternative income from social security systems and from employment outside agriculture. They basically produce for their own consumption and, to a lesser extent, for direct sales. Restructuring of the subsistence sector depends on the revival of rural economies and responds only marginally to agricultural policy measures directed to markets and income. With EU accession, funds have become available to contribute to the revival of rural economies in case these funds will be well managed and targeted.

Due to the sharp competition in the EU small scale producers and producers unable to meet community requirements (standards) will be forced to give up agricultural production. Decreasing production in sectors concerned may lead to decreasing output of the processing industry, too so the creation of alternative income sources in regions concerned is of great importance.

The volume of agricultural exports has dropped and in the next years the rate of the increase of imports will exceed that of exports. Although agricultural trade balance will still remain positive, there will be a clear decreasing trend The HUF/EUR exchange rate has a significant impact on the development of agricultural production and trade.

Competitiveness of arable crop production in Hungary is out of question; however, its structure is vulnerable to changes of the CAP (introduction of the SPS). This is particularly true for potato, tobacco, sugar beet, and tomato production. Competition between maize and other major cereal production is strongly dependent on the intervention price level. Outlook for livestock production, especially for the pork-meat, poultry-meat, and milk production is rather depressing.

The reform of the EU's Common Agricultural Policy (*Single Payment Scheme: SPS*) was introduced in 10 old member states in the EU-15. An essential means of the new agricultural policy is the (partial) decoupling of production from direct payments. Hungary has to proceed on this way if she wants to regain its lost competitiveness on the foreign markets. Hungary can apply the simplified area-based payments (SAPS) until 2007 or in case of documented reasons until 2009. It is important to introduce SPS as soon possible.

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