

**THE STATE OF SLOVENIAN AGRO-FOOD SECTOR
AFTER ACCESSION TO THE EU¹**

Tina Volk², M. Rednak¹, E. Erjavec³

Abstract: The paper describes and analyzes the changes in Slovenian agro-food sector in the period 1992-2006 with more emphasis on the years after 2000 in the light of accession to the European Union (EU). The accession has not caused any major difficulties in the Slovenian agriculture as a whole. Such an outcome can be attributed to the fact that the objectives and mechanisms of Slovenian agricultural policy were gradually brought into line with the Common Agricultural Policy (CAP) already in the pre-accession period. Therefore, the adoption of the CAP on accession largely meant a continuation of the measures pursued under the national agricultural policy, but with higher funds for the agricultural support. The agricultural income remained at the relatively high level compared with the previous years and the analyses of the main factors determining income revealed the continuation of trends typical for the period after 1999 – a slightly upward trend in the agricultural output volume, a downward trend in the producer prices of agricultural products and an intensive upward trend in the subsidies for farmers. The most evident changes that could be attributed directly to the EU accession may be observed in the agro-food trade. Slovenia is traditionally a net food importer. However, abolishing customs protection on the imports from the EU and a rise in the customs duties levied on the exports to the third countries after the accession has increased the trade deficit to the highest level so far. Trade was somewhat reoriented from other countries to EU Member States, especially on the export side. Opening up the market after the accession increased a competitive pressure on the food industry and the business performance of the sector deteriorated significantly. The Slovenian agro-food chain is faced with some important challenges. The

¹ Second part of the paper will be published in *Economics of Agriculture* No 3/2007.

² Dr. Tina Volk, dr. Miroslav Rednak, Agricultural Institute of Slovenia, Hacquetova 17, SI-1000 Ljubljana, Slovenia

³ Dr. Emil Erjavec, University of Ljubljana, Biotechnical Faculty, Groblje 3, SI-1230 Domžale, Slovenia

problem of relatively poor competitiveness of the sector has not yet been solved, and comprehensive structural changes and adjustments are still needed.

Key words: agriculture, agricultural policy, EU accession

1. Introduction

As concluded by various authors (OECD, 2001, Volk, 2004, Rednak et al, 2003a), agriculture in Slovenia was affected by transition less adversely than in many other accession countries. At the beginning of the transition process, Slovenia adopted a protectionist concept of agricultural policy with relatively high level of border protection. The agricultural output did not drop considerably and producer prices remained relatively high. Changes in agricultural policy happened gradually and were modelled on the Common Agricultural Policy (CAP) from the beginning.

Since mid-1990s and especially in the period of preparation for accession, foreign trade protection was gradually reduced through various free trade agreements and direct producer support in the form of area and headage payments was introduced and increased. Slovenia thus introduced all CAP-like measures even before the actual accession and in the last year before accession (2003) direct payments reached 75% of the level of these payments in EU-15 (Erjavec et al, 2003b). During the negotiation process, Slovenia succeeded in obtaining relatively high level of quotas and premium rights, gained the possibility to further increase direct payments from the national budget up to the level of 100% compared to EU-15 by 2007 and obtained relatively high EU funds for rural development.

The starting position for agriculture before the accession was thus quite favourable. Therefore, the accession impact assessment with market and income outlooks was quite optimistic (the summary of different studies is presented by Erjavec et al, 2003a, Kavčič et al, 2003, Muench et al, 2002). The agricultural factor income after accession was expected to remain at least at the pre-accession level if not improved. The agricultural producer price level before the accession was at the comparable level or in some cases even higher than in EU, therefore the prolonging of the negative price trend was expected also after the accession. However, increased budgetary supports would compensate for the losses incurred by the expected drop in prices on the aggregate level. As a consequence of the differences in supports by products in Slovenia and the EU, considerable changes might be expected in the economic position of individual products. The products receiving higher budgetary supports after accession (beef, maize) were expected to be better off than the products which are in the European Union largely exposed to the market forces (pig, poultry and eggs production).

The outlook for food processing industry was rather more pessimistic (Erjavec et al, 2003a). Despite the general trends of opening the markets already before the accession, the processed products remained relatively highly protected. Exports of some products, such as dairy, were supported by high export subsidies. Therefore it was expected that the economic results of the food industry at the aggregate level should worsen after the accession. This should be especially the case for dairy and wine and to some extent also in the milling industry, processed fruit and vegetables. The difficulties were expected to emerge immediately after the accession, with opening of the borders and higher competition in the retailing sector.

The aim of this article is to present the main changes in Slovenian agriculture and food processing industry in the pre-accession period and in the first years of EU membership. The changes are presented in the form of the very first impact analysis of the accession effects. The analysis is limited due to short time period after the accession.

The analysis has been done on the basis of available primary statistical data, the data from Ministry of Agriculture, Forestry and Food for budgetary expenditures (MoAFF-KIS, 2006, KIS, 2007) and AJPES (AJPES, 2007) about the accountancy data for food industry sectors. The time frame of the analysis has been from 1992 on, with more emphasis on the last years before and the first years after accession, i.e. for the period 2000-2005/06.

The paper starts by describing the macroeconomic frame and the role of agro-food sector in the economy. The description of agricultural policy begins by an outline of the characteristics of policy before and after the accession. The evolution of budgetary expenditures by the type of instruments underpins the discussion. The trends in production, prices, income and farm structure are presented in the next chapter. This is followed by the discussion on situation and changes in the food industry with the description of trade and consumption patterns. The paper is rounded off by a conclusion of accession effects.

2. The macroeconomic environment and the role of agro-food sector

Slovenia's economic trends have been favourable in recent years (Table 1). National economy has rapidly developed and has been successfully integrated into the single market and the international economic flows. An advantageous baseline position and a relatively high economic growth have contributed to economic convergence of Slovenia with the EU. In 2005, the GDP per capita in purchasing power standards reached 81% of the EU-25 average (EUROSTAT, 2007) and Slovenia thus exceeded the threshold of the least developed regions (countries) in the EU. Inflation dropped to 2.5% in 2005 and 2006. Employment picked up and the number of unemployed declined to the level of 6%. Slovenia joined EURO zone in January 2007.

Table 1. Selected economic indicators, 2000-2006

	2000	2001	2002	2003	2004	2005	2006
Population 30.6. (000)	1,990	1,992	1,996	1,997	1,997	2,001	2,009
GDP growth (%)	4.1	2.7	3.5	2.7	4.4	4.0	5.2
GDP/inhabitant (PPS; EU 25 = 100)	72.7	73.9	74.5	77.4	79.9	81.2	85,2
Inflation (%)	8.9	8.4	7.5	5.6	3.6	2.5	2.5
Unemployment rate (%)	7.0	6.4	6.4	6.7	6.3	6.5	6.0

Source: Statistical office of the Republic of Slovenia (SORS), Eurostat.

In Slovenia agro-food sector is relatively small in terms of its contribution to the national economy (Table 2). The shares in GDP, employment and trade have fallen since the beginning of the 1990s and are expected to decrease further, mostly due to the faster growth of non-agricultural sectors of the economy.

Table 2. Share of agriculture and food sector in the economy, 2000-2006

	2000	2001	2002	2003	2004	2005	2006
Share in GDP (%):							
- agriculture, hunting and forestry	2.8	2.6	2.7	2.2	2.3	2.2	2.0
- food processing industry	2.4	2.4	2.3	2.3	2.0	1.7	:
Share in employment (%):							
- agriculture, hunting and forestry	11.9	11.4	11.0	10.8	10.3	10.0	9.6
- food processing industry	2.6	2.5	2.4	2.4	2.4	2.2	:
Share in trade of goods (%):							
- agro-food exports	3.8	3.7	3.7	3.6	2.8	2.9	3.1
- agro-food imports	6.4	6.6	6.6	6.3	6.3	6.5	6.4

Source: SORS.

2. Agricultural policy and budgetary support

2.1. Policy concept and main mechanism

After the break with former political and economic system and the gaining of independence, Slovenian parliament adopted new guidelines for agricultural policy with the Strategy of Agricultural Development of Slovenia (Erjavec, 2003b), which set forth the following basic agricultural policy goals: (i) stable production of cheap and quality food and food security in Slovenia; (ii) preservation of

population density, cultural landscapes and agricultural land (preservation of production potential in case of interrupted supply), protection of agricultural land and water from pollution and misuse; (iii) permanent increase of competitiveness; (iv) guaranteed parity income for above-average producers. Behind this decision, there was a clear strategy to adopt the European Union-like agricultural policy with the similar objectives, instruments and understanding of the role of agriculture in the society. A protectionist concept of agricultural policy was adopted, which assured a relatively high level of support to agriculture throughout the entire transition period. However, under this concept, the agricultural policy instruments and measures was gradually changed.

In the first period after the adoption of the Strategy the most important agricultural policy measure was border protection based on import levies (Erjavec et al, 2003b). Slovenia's membership of the World Trade Organisation (1994) and the ensuing trade commitments, as well as numerous bilateral free trade agreements concluded in the years that followed, altogether led to opening of agricultural products market and limited the border protection. This in turn also called for a changed agricultural policy. Another important reason behind the required changes of the agricultural policy was the beginning of the process of Slovenia's accession to the European Union, which dictated a gradual transposition of the *acquis* and also formal adaptation of Slovenia's agricultural policy to the Common Agricultural Policy. The processes which later on led to adoption of the main guidelines of the agricultural policy reform (liberalisation of prices, increasing of the agricultural budget) have been under way since the mid-nineties. These new agricultural policy guidelines were formalised in the Programme of Agricultural Policy Reform (1999-2002) (MAFF, 1998 cit. Erjavec et al, 2003b) and the National Development Programme for Agriculture, Food, Forestry and Fisheries for the period 2000-2002 (MAFF, 1999, cit. Erjavec et al, 2003b) issued thereof.

The reform has switched the burden of agricultural support from a consumer to a taxpayer, which means also a changeover from market-price support policy to the policy of budgetary support (especially direct payments, export subsidies and rural development support). Slovenian agricultural policy transposed some main mechanisms of CAP and has to a large extent put in place a comparable agricultural policy well before the accession (Erjavec, 2004, Volk, 2004). Simulating CAP was a clearly defined goal of Slovenian agricultural policy, as it wanted to assure a "soft landing" of agriculture on the common market and the timely establishment of comparable institutions as well as the necessary change of mentality. In line with the CAP MacSharry's reform, the agricultural policy in Slovenia lowered the level of price supports and compensated for the loss of incomes by direct payments. Changes in the agricultural policy called for a

significant rise in the budgetary expenditures for the agricultural policy in the post-independence period (see 3.3 below).

2.2. Accession negotiations and results

The accession negotiations on agriculture started in September 1998 in Brussels and concluded with the final agreement on 13 December 2002 in Copenhagen. The final outcome of negotiations for Slovenia in the area of agriculture can be assessed as favourable (Erjavec, 2004).

In the area of direct payments it has been agreed that the level of direct payments rise gradually from 25% in 2004 to 100% in 2013. Early in negotiations Slovenia proposed to complement (top up) direct payments from the national budget. Eventually, the Commission offered this possibility to all candidate countries; however, the level of these "top-up" payments was intensively negotiated. Underpinned by the results of a study (Rednak et al. 2003b) showing that the economic position of Slovenian agriculture would deteriorate considerably in the event of lower level of top-up payments, a compromise solution was reached. Slovenia was allowed to start topping up payments as from the level of payments reached in 2003, which stood at 75% of the level applied in the then Member States. In 2004 Slovenia was allowed to raise this level by 10% and in the following three years by another 5% each year. Thus in 2007 a 100% level of direct payments can be reached. Compared to other candidate countries, Slovenia was granted the highest level of possible complementing of direct payments (Erjavec, 2004). This was no doubt a favourable negotiating outcome for Slovenian agriculture, however it went at the expense of the national agricultural budget which was supposed to increase as from accession and remain high up to 2007, when it should start to gradually decrease. This additional burden on the national budget was justified by the fact that it was only a temporary measure and assured to Slovenian farmers an equal competitive position on the common market.

Expectations about quotas and reference quantities were very high and attracted a lot of publicity in Slovenia. In its first proposal, the Commission put forward the levels much lower than those stated in Slovenia's negotiating positions (Erjavec, 2004). However, final levels were in no case lower than the actual production level at that time and some additional development reserves have also been constituted. The finally agreed levels were even more important in view of the fact that they served as a basis for calculation of the CAP reform national envelope of decoupled direct payments.

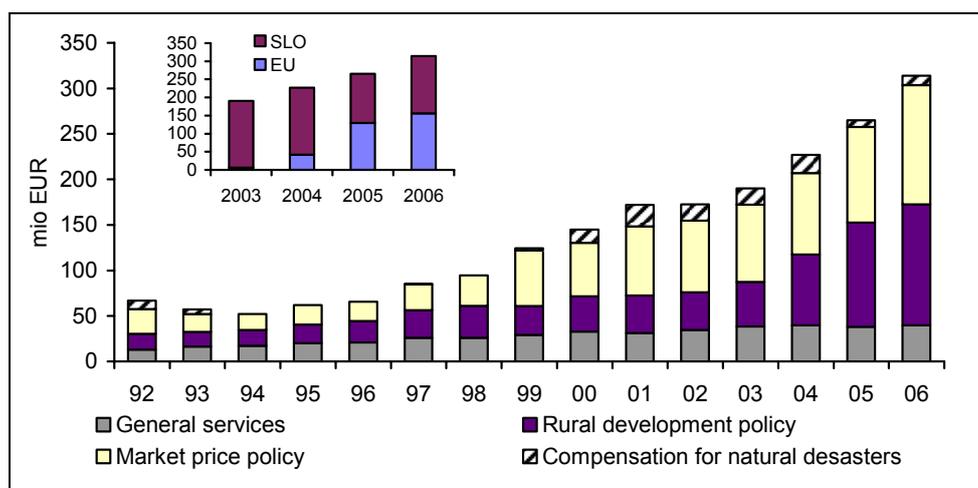
The negotiating outcome in the area of rural development funds for the period 2004-2006 can be assessed also as favourable. Slovenia was entitled to funds amounting to around EUR 249.8 million (at 1999 prices, paid out over a

longer period of time, Treaty, 2003), which was comparable with total funds earmarked for structural and regional policy and it represented the largest share in the distribution of funds from the EU budget to Slovenia. Slovenian negotiators succeeded in convincing the EU that Slovenia's primary interest was encouraging sustainable development of agriculture and that it intended to overcome its development problems in this area by means of rural development funds (Erjavec, 2004).

2.3. Budgetary transfers

In the structure of the budget (Figure 1), expenditures for the market-price policy measures prevail, followed by the expenditures for agricultural structural and rural development policies, and the expenditures for general services for agriculture, which also take up an important share of the budget.

Figure 1. Budgetary expenditure for agriculture, 1992-2006



Source: Calculated from Ministry for Agriculture, Forestry and Food (MAFF) data.

For budgetary transfers, three typical periods can be noticed:

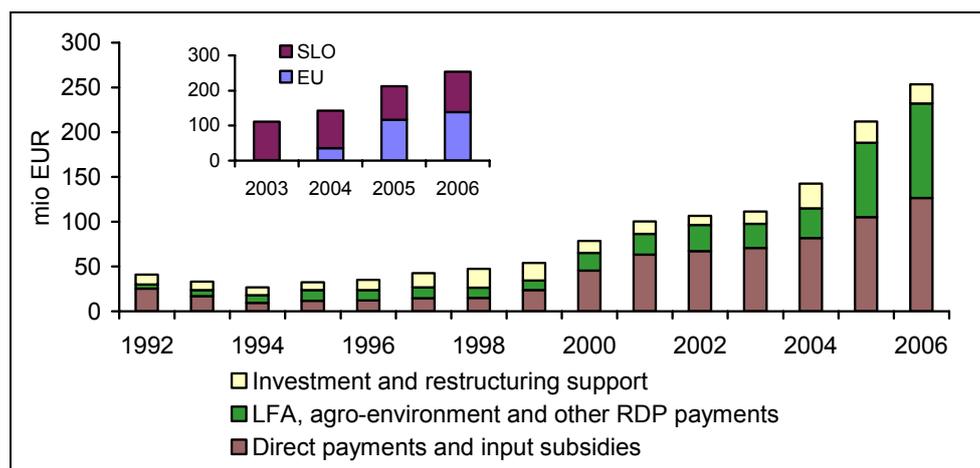
1992-1996 - without greater changes in the first years of transition when price support oriented protectionist agricultural policy was in place and level of prices was relatively stable,

1997-2003 - rapid increase in budgetary support in pre-accession period, when liberalisation of markets intensify and prices started to decrease,

2004-2006 - even sharper increase after accession as a result of co-financing of measures from EU funds along with no significant change in national funds. The share of EU funding of measures significantly increases.

The main budgetary transfers were directed to agricultural producers (Figure 2). Budgetary transfers to agricultural producers in pre-accession period clearly show the gradual reorientation from indirect support to the markets through border protection to the direct forms of support to producers through direct payments. After accession increase in direct payments continued (and even intensified) due to phasing-in, resulting in a further increase in the value of individual premiums – from 75% compared with EU-15 in 2003 to 95% in 2006 (see above).

Figure 2. Budgetary expenditure to support agricultural producers, 1992-2006



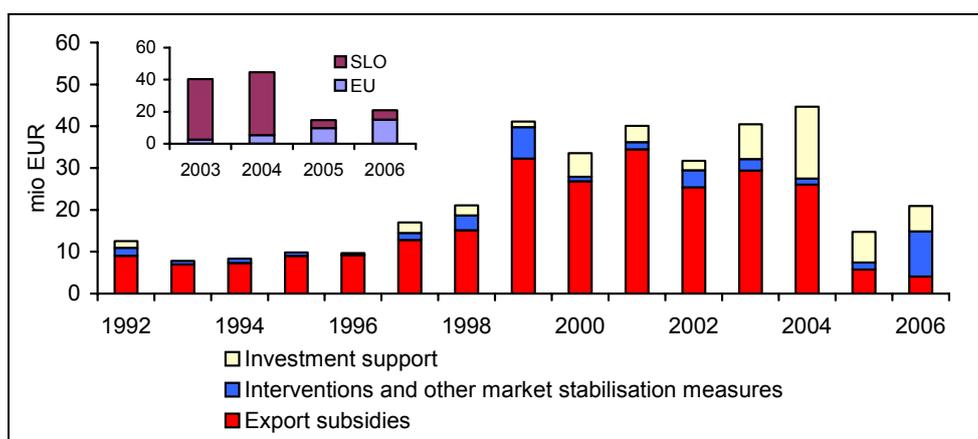
Source: Calculated from MAFF data.

Regarding rural development policy, the changes in budgetary support to producers in pre-accession period were not so obvious. Slovenia has introduced EU comparable support measures before the accession, but with lower funds. After the accession EU funds were added to the national budget resulting in a sharp increase of support in this field.

The food processing industry has received significantly less budgetary support than agriculture (Figure 3). In the period 1992-2004 the share of food

industry relevant measures in total budgetary transfers to agro-food sector was on average 30%. The main support came in the form of export subsidies, where the dairy industry was the main beneficiary. A relatively low share of available funds was given for investment support for restructuring of the food industry.

Figure 3. Budgetary expenditure to support food industry, 1992-2006



Direct support to food industry decreased drastically after the accession. The main reason is the loss of export subsidies which are according to the *acquis* not given for the trade with Western Balkan countries, the main market for Slovenian food industry. The change in policy has been worsening the economics situation especially in the dairy sector.

The accession increased budgetary transfers for agro-food sector only to a lesser extent and indirectly contribute to solving of structural disparities of Slovenian agriculture and food industry. Policy transfers are tied mainly to the income supports for agriculture in the form of 1. and 2. CAP pillars direct payments. The structural measures of development nature, such as investment supports, are only limited and they do not crucially affect the competitiveness and economic position of Slovenian agro-food sector.

3. Agriculture

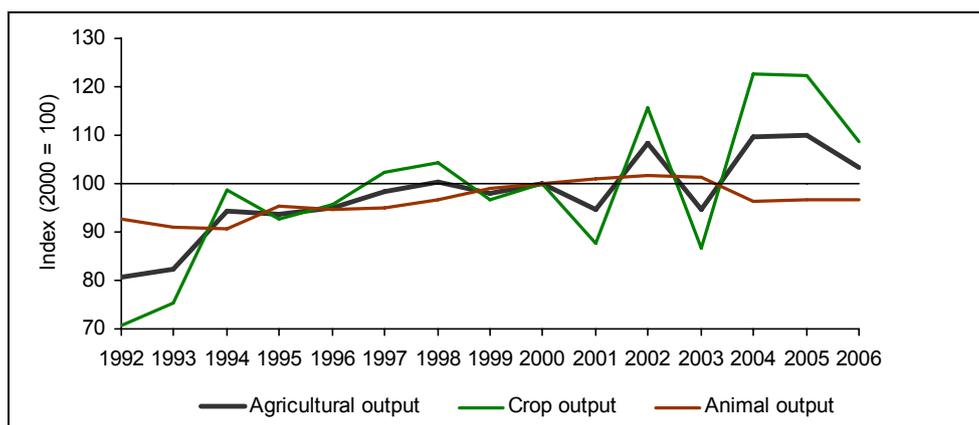
3.1. Agricultural production

Natural conditions for agriculture are relatively unfavourable in Slovenia. Availability of land for agricultural production is limited, with forests covering

more than 60% of the country's territory. The agricultural area accounts for about 30% of total land and its area has been steadily declining due to expansion of forests, built-up territories and new transport infrastructure. About three-quarters of agricultural land lie in regions with unfavourable conditions for agricultural production, which limits the scope of agricultural activities and results in low productivity and higher costs of production. Permanent grassland prevails in land use, representing about 60% of utilized agricultural area (SURS, 2006).

Agricultural production in Slovenia still depends greatly on weather conditions; as a consequence, the volume of crop production varies considerably between years. The volume of livestock production is much more stable, even though there are some oscillations due to cyclical changes in livestock numbers, especially pigs and cattle. In general a slightly upward trend in gross agricultural output (GAO) can be noticed (Figure 4).

Figure 4. Gross agricultural output volume, 1992-2006



Source: SORS.

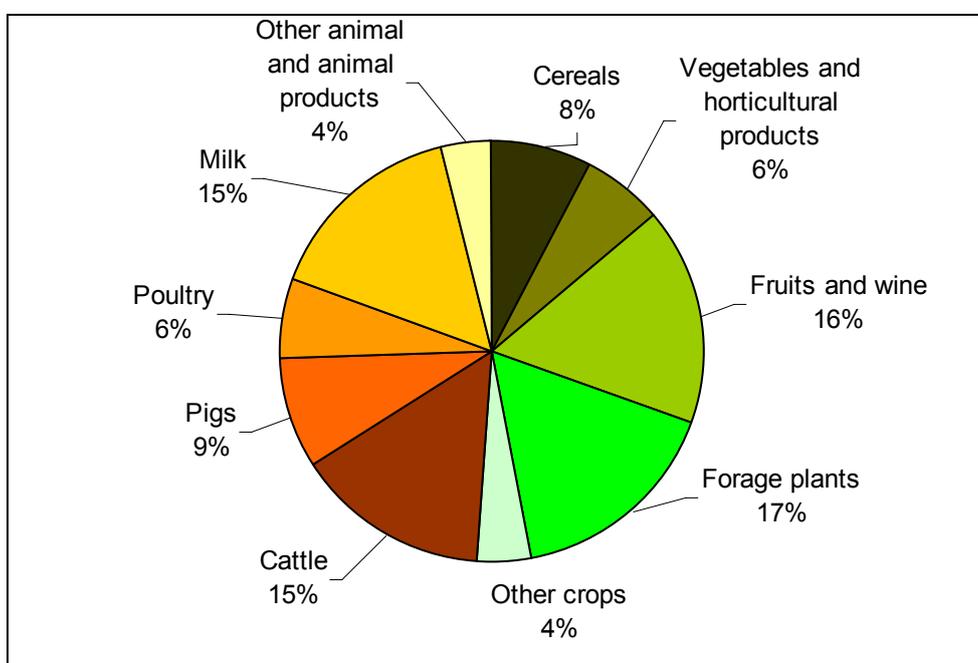
The sectoral structure of agricultural output has remained almost unchanged, with livestock and crop production accounting for about 50% of GAO each.

Milk and beef production are the most important livestock sub-sectors, followed by pig and poultry production. In the structure of crop production, beside forage plants, fruits and wine together represent the highest share of GAO, followed by cereals (Figure 5).

Plant production was characterised by a stable trend in yields growth, without any important changes in land use. The production increase after accession

has been mainly a result of two successive good years for plant production. In the land use, the share of cereals has been diminishing, which is especially the case for soft wheat. After accession the area for oilseeds (mainly rape and pumpkin seeds) recorded a significant increase, however, it remains of minor importance in total land use. The meat production has been relatively stable throughout the observed period, except for sheep meat production, which started from a very low level, but increased more than 4 times since 1993. Milk sales to the dairies also soared. Accession has not affected noticeably the production level in livestock; however, longer observation period would be needed to obtain more exact picture.

Figure 5. Composition of GAO by commodity, 2004-2006 average



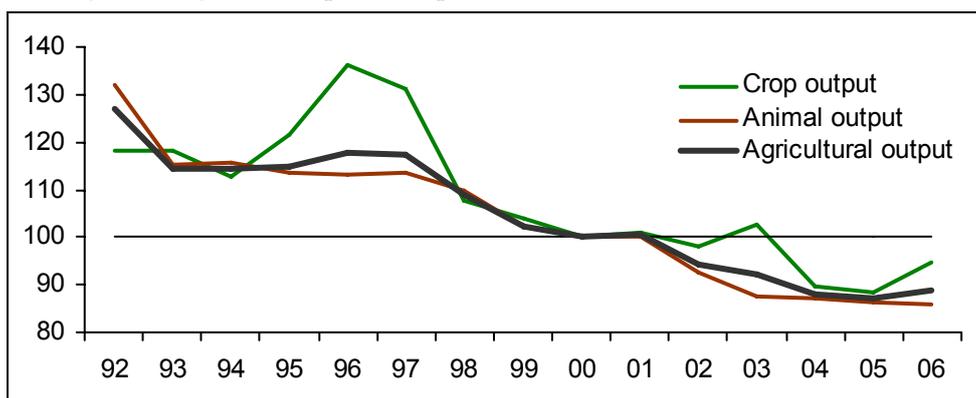
Source: Eurostat, calculated by AIS.

3.2. Prices

As regards the changes in agricultural producer prices on the aggregate level (Figure 6), like in the budgetary expenditures, three typical periods can be seen so far – relatively stable price level in the first years of transition (between 1992 and 1997), a sharp decrease in the pre-accession period (between 1998 and 2003/04) and no significant change after the accession. The prices for crop products have

varied more than for animal products; sharper changes in crop prices are largely connected with the extreme (low or high) levels of crop production due to weather conditions.

Figure 6. Agricultural producer price indices (real, 2000=100), 1992-2006



Source: SORS.

Table 3. Prices for agricultural products (EUR/t), 2000-2006

	2000	2001	2002	2003	2004	2005	2006
Common wheat	151.8	131.3	136.3	140.3	119.0	105.9	109.0
Grain maize	122.8	112.3	101.0	120.3	116.9	91.8	109.6
Potatoes	132.3	139.3	155.7	220.1	128.6	105.4	225.5
Sugar beet	30.2	31.1	35.5	35.1	44.2	39.1	32.5
Cabbage	154.3	184.0	163.6	291.3	127.8	140.3	171.4
Dessert apples	294.7	322.2	323.9	375.0	303.2	308.6	316.0
Wine grapes	403.9	374.0	411.2	392.2	394.6	399.9	491.4
Wine	1,698.5	1,724.8	1,657.5	1,538.9	1,610.9	1,616.2	1,749.0
Young bulls under 24 month (R3) ^{*)}	:	:	2,444.2	2,437.9	2,402.0	2,732.5	2,895.9
Pigs (class E) ^{*)}	:	:	1,484.7	1,371.1	1,389.6	1,486.7	1,478.7
Chickens (65%) ^{*)}	:	:	:	1,930.7	1,868.7	1,787.0	1,715.8
Raw cows milk, farm-gate (actual fat content)	281.7	289.9	281.6	274.7	266.1	263.3	266.5
Eggs	1,310.1	1,142.7	1,315.9	1,235.1	1,301.0	1,333.4	1,312.1

* Market prices on representative markets; carcass weight (MAFF)

Source: SORS.

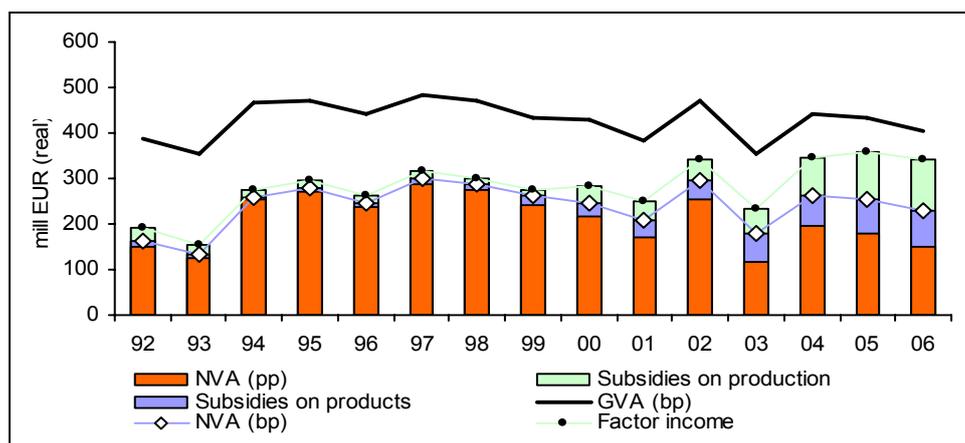
Accession brought about some price changes for individual products (Table 3). Price decrease could be observed for wheat, as well as for milk and poultry meat. Producer prices increased mainly in beef and pork. The majority of changes followed the trends on the EU single market, the price relations to the EU average prices thus remained stable. The exception is soft wheat, where the prices have fallen under the EU average price level.

3.3. Agricultural income

As a result of gradual and relatively consistent changes in agricultural policy, the agricultural factor income remained relatively stable throughout transition and pre-accession period. Lower income levels in some years (1992, 1993, 2001, 2003) are connected mainly with lower levels of production due to bad weather conditions (Figure 7).

After the accession the factor income stabilised at the relatively high level compared to previous years. The trends from the past have continued – a slightly upward trend in agricultural output volume, a downward trend in producer prices and a substantial increase in subsidies for farmers. The situation after the accession thus changed little for producers, and it has remained relatively favourable for agriculture in general. However, the structure of income changed significantly – the share of all forms of subsidies to producers has increased gradually to the level of about 50%.

Figure 7. Agricultural income, 1992-2006



Source: Eurostat, calculated by AIS.

So far, beef producers benefited the most after accession as the market prices rose significantly compared to the previous years due to an upward trend of prices on the EU beef market and besides, they have been supported by higher direct payments. The situation for beef producers has improved also as a result of exports of live animals to the neighbouring countries.

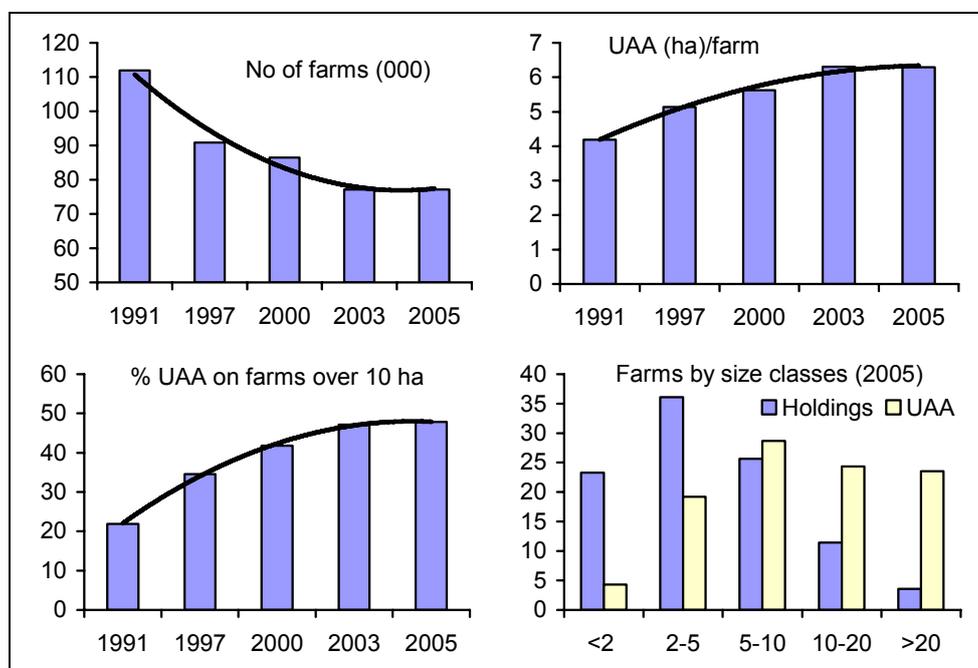
EU membership, on the other hand, worsened the situation in the majority of the crop sectors, with cereals production being the most affected. Following the accession, prices of cereals, especially wheat, fell sharply, though this was mainly due to the bumper harvest in the EU as a whole. The income loss was partly compensated for through higher direct payments, but nevertheless the cereal area decreased slightly (on average by 4%) and the share of grains entering commercial marketing channels fell considerably (on average by 20%). The EU membership can be considered negative also for the producers in the sugar sector. After the reform of the sugar Common market organisation, the decision was taken to close down the sole sugar mill in Slovenia. Even if plans to convert the factory for bio-ethanol production are realised, there will be a drop in the number employed in the factory and probably also to a drop in farmers' incomes, as production of sugar beet was among the most profitable activities.

3.4. Structure of agricultural holdings

Although since the mid-1990s, there have been rapid structural changes – a continuous decrease in the number of producers and increase in average size of holding – small holdings still dominate agricultural production (Figure 8). According to the most recent structure survey (2005), the average size of farms is only 6.3 ha – farms are thus almost 3-times smaller compared with the EU average.

The farm structure surveys clearly show that the accession did not speed up the consolidation process, on the contrary, structural changes slowed down. This could be mainly explained by a relatively favourable economic position of the farming and especially by the introduction of direct payments from 1st and 2nd CAP pillars, which made the cultivation the agricultural areas interesting also for small farms.

Figure 8. Structure of agricultural holdings



Source: SORS.