EFFECTS OF AGRICULTURAL POLICY ON THE DEVELOPMENT OF SLOVENIAN AGRICULTURE DURING THE TRANSITION AND THE PROCESS OF ACCESSION TO THE EUROPEAN UNION

Tinca S. Volk

Abstract: The thesis analyzes the development of agricultural policy and agriculture in Slovenia in the period from 1992 to 2002. The analysis is based on the classification of agricultural policy and its measures, standard indicators used for analysis of development of agricultural policy and agriculture, and specific methods for evaluating the efficiency of agricultural policy (evaluation methods, simulation methods). The results show that the transition in Slovenia caused no marked shocks for agricultural production. The development goals for agriculture were set forth early (in 1992) and were modelled on the EU standards, and they remained unchanged throughout the transition. A protectionist development concept of agricultural policy was adopted, which assured a relatively high level of support to agriculture. Under this concept, the agricultural policy was substantially reoriented during the transition, but this happened gradually and was reflected above all in the re-instrumentation of policy and changes of the structure of support to agriculture. Agricultural policy was relatively successful. It managed to achieve most of the strategic development goals of agriculture and a high degree of compatibility with the Common Agricultural Policy (CAP).

Key words: agricultural policy, agriculture, transition, Slovenia, European Union, support to agriculture, rural development.

Introduction

The economic transition in the Central and Eastern European countries was one of the most discussed themes in the 1990s (Davidova and Buckwell, 2000). Although the transformation of agriculture is in no way more important

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1 Tinca S. Volk, PhD., Researcher, Agricultural Institute of Slovenia, Hacquetova 17, 1000 Ljubljana, Slovenia
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than the transformation of any other economic activity, special attention has been paid to the reform of agriculture and food-processing industry. This is largely because its effects reach beyond the industry itself to the prosperity of a large part of rural and urban population, and consequently also to the success of the transition in general (Chioccioli, 1998).

Most international studies of agriculture in transition economies include also Slovenia (EC, 1995; FAO, 1998; EC, 1998; OECD, 2001). In addition, numerous domestic analyses have been made over the last ten years, within the framework of preparations of programming documents (MKGP, 1992; MKGP, 1994; MKGP, 1999), for the purposes of monitoring the development of agriculture (MKGP, 2003), as well as in the framework of examining the consequences of international integrations for agriculture (Erjavec et al., 1997; Erjavec et al., 1998; Rednak et al., 2000; Kavčič, 2000; Erjavec et al., 2002; Rednak et al., 2003). Despite numerous studies and analyses, none of them covers all the key areas in the entire period of transition, which also coincides with a period of an independent agricultural policy in Slovenia ending with Slovenia becoming a member of the European Union.

This thesis covers the period from the early 1990s up to the end of the negotiations with the EU (2002), and thus provides an evaluation of the entire period of transition and independent agricultural policy in Slovenia. The goal was to assess the effects of the agricultural policy on the situation and development of agriculture. It was based on a complex analysis of agricultural policy and its measures, the analysis of agriculture and the progress of its development towards the agricultural policy goals.

**Material and Methods**

The thesis was prepared following the recommendations of the World Bank (Ender, 2003). It is based on the classification of agricultural policy and its measures, indicators for analysing the development of agricultural policy and agriculture, and specific methods used for assessing the realisation of goals.

Since literature offers no uniform approach to classification of agricultural policy measures, an original classification was made (Picture 1), which allows the analysis of the policy from the aspect of normative and programming documents in Slovenia. It also allows a direct relation of individual measures with classification according to other methodologies used in this work. PSE/CSE indicators (OECD, 1999; OECD, 2003) were used for quantitative analysis of characteristics and development of agricultural policy and the analysis of total support to agriculture. The main indicators of development of agriculture are based on the *Economic Account for Agriculture (EAA)* (Eurostat, 2000;
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Based on the main development indicators of agricultural policy and agriculture, specific methods were developed for assessing the efficiency of agricultural policy (evaluation methods, simulation methods).

An original approach was used to assess the achieving of strategic goals, following the basic idea of analytical evaluation methods (Vedung, 2000; Owen and Rogers, 1999; CEE, 2001; EC, 2001; Erjavec et al., 2001). The evaluation procedure starts with identification of goals on the basis of programming and normative documents. The next step involves selecting the criteria, which allows identification of expected directions of changes. The third step is a selection of indicators for each criterion, which allows quantification of changes. This is followed by the quantitative assessment of individual indicators in the form of numerical ratings and finally by a qualitative assessment of the achieving of goals. The method of quantification of original indicators in the form of scores represents a standardisation of selected indicators, which consists of a relative number, whose numerator represents a deviation of selected indicator...
from the average, and the denominator represents the maximum absolute deviation from the average in the observed time period.

\[
BO = f \times \frac{X - \bar{X}}{\max |X - \bar{X}|} \times 5
\]

BO: numerical rating for selected indicators in a series
x: individual data in a series; \( \bar{X} \): series average
f: factor of direction of change
(target level > starting level \( \rightarrow f = 1 \); target level < starting level \( \rightarrow f = -1 \))

All indicators for a selected year are translated into scores ranging from -5 to +5, where +5 means the best and -5 the worst score, whereby these scores show all the characteristics of original series of indicators. To assess the changes in the entire observed period, a trend coefficient was used calculated on the basis of scores. Positive value of this coefficient is interpreted as a change in the expected (desired) direction and vice versa.

Simulation method (Vojtech, 2002; Erjavec et al., 2003) based on the original PSE indicators by products in Slovenia and EU was used for a direct quantitative comparison of agricultural policy in Slovenia with CAP. The simulation was based on the presumption that the adoption of CAP in Slovenia would result in the same PSE by unit of product as in the EU. In the simulation, the original values of PSE indicators by unit of product for Slovenia and the EU were aggregated at the level of agriculture in Slovenia. The average volume of production of individual PSE products in Slovenia in the period 1992-2002 was used as a weighting. The comparison of simulated revenues and their structure directly reveals the differences and/or compliance of Slovenian agricultural policy with CAP.

\[
GRSLOsim_{ij} = \sum Q_i(P_{pi} \times \frac{BP_i}{Q_i}) \\
GRSLOsimEU_{ij} = \sum Q_i(P_{piEU} \times \frac{BP_{EUi}}{Q_i})
\]

GRSLOsim: gross revenue of producers in Slovenia
GRSLOsimEU: gross revenue of producers in Slovenia in the conditions of CAP
Q_i: average production in Slovenia in the period 1992-2002
i: individual product; j: individual year
P_p: producer price in Slovenia
BP: budgetary transfers to producers in Slovenia
P_pEU: producer price in the EU
BP_{EU}: budgetary transfers to producers in the EU;
Q_{EU}: production in the EU

Results and Discussion

In Slovenia, the agricultural policy practically did not change much after independence and in the first years of transition from socialist to market economy (Erjavec et al., 1997; OECD, 2001). The pre-transition policy continued, based
on price control of the main products, price aids, input subsidies, on-farm investment support and financing of public services for agriculture.

Adoption of the strategic document on the development of agriculture of Slovenia (MKGP, 1992) was crucial for the process of transformation of agriculture as well as for the development of the agricultural policy, as it set forth long-term goals and defined the directions of implementation of agricultural policy measures. By this strategy, the transition model was adopted, which had as a goal the development of agriculture as an economic activity with an important function of preserving and developing rural areas, preserving the environment and natural resources. In the period that followed, the strategic goals remained unchanged, but the instruments and the measures of agricultural policy gradually changed. Upon adoption of the new act on variable import levies (1993) foreign trade protection increased considerably, whilst the changes of other groups of measures from the pre-transition period were relatively small. Budgetary supports remained modest and comprised mostly of the measures directly related to production and inputs (OECD, 2001). Since the mid-1990, the policy has started to gradually abolish some measures and introduce new ones, mostly in the direction of more decoupled payments.

Considerable changes in agricultural policy occurred only with launching of agricultural policy reform (MKGP, 1989; MKGP, 1999) in 1999, which in its essence meant a gradual transformation from the policy of price-related support to the policy of support based on budgetary payments, all with the goal of increasing the role of the market and achieving structural adjustment of agriculture. Preparations for accession to the EU and the start of negotiating process contributed greatly to the decision to launch agricultural policy reform and for its successful realisation. The reform went in the direction of adapting the types, forms and levels of measures to that of CAP, with the goal of bringing the policy into line with the EU even before the actual accession. The changes in the agricultural policy measures were reflected also in the level and the structure of the budget for agricultural support.

Graph. 2.- Total budget for support to agriculture; 1992-2002 (Source: MKGP/OEK-PROR, 2003)
The budget earmarked for support to agriculture reveals a clear tendency of growth in the entire analysed period and particularly since 1999. In 2002 it amounted to around EUR 170 million, which was almost double the level recorded in 1998 and three times higher than in the first years.

The measures aimed at stabilisation of the market contributed greatly to increased budget. These expenditures for market support started to grow in 1997, i.e. in the period when the efficiency of foreign trade protection started to wane. Back in 1994, Slovenia acceded to the WTO, which meant also a commitment to gradually reduce its foreign trade protection. Various free trade agreements, which Slovenia signed in the years that followed, further contributed to opening of the market. In the mid-1990s, agricultural policy started to introduce and increase direct producer support in the form of area and headage payments, which has been intensified in particular since 2000 when these measures were intensively brought into line with the EU. Recently, a marked increase in compensatory allowances was another consequence of the reform and alignment with the EU. After area payments had been introduced in 2000, compensatory allowances to the producers in less-favoured areas increased, and also new measures of support to more environmentally-friendly agriculture were introduced, modelled on that in the EU.

The value of structural and rural development support was the least stable, above all the on-farm investments support. Although according to the reform documents, the structural adjustment and rural development support should be a priority, these transfers shrank recently. Thus, it can be concluded that in the conditions of the restrained budget, the policy gave priority to market price policy, i.e. to producer incomes at the expense and to the damage of the structural policy.

The policy in the area of public services for agriculture (financing of the extension service, selection, introduction, research work and other general infrastructure) has practically not changed throughout the observed period, whilst the funds for these purposes increased quite evenly.

Despite constantly increasing budget, the budgetary transfers represented only a small portion of the total support to agriculture in the analysed period. A majority of support came from the measures supporting the market (above all, foreign trade protection), which allowed forming of prices on the domestic market above the level of the world prices. Market price support (MPS), on average, represented more than 80% of producer support (PSE). This share started to go down only after 1999, i.e. when the agricultural policy reform came into full swing.

Throughout the observed period, the agricultural policy assured high level of support to agriculture. The percentage PSE, i.e. PSE as percent of producer’s gross revenue reveals that, on average, 36% of total gross revenues came from
producer support. Ever since 1997, producer support has been high even in comparison with the EU and far beyond the levels in all other transition countries of the Central and Eastern Europe (OECD, 2002; Melyuchina, 2003).

Agricultural policy justified high levels of support to agriculture with the goals related to development of agriculture, therefore the assessment of the realisation of the goals can also be considered as an assessment of the efficiency of this policy. Evaluation starts with the goals set forth in the strategy of development of agriculture (MKGP, 1992). In the initial period, production and income related goals were formally in the forefront, whilst the reform of the agricultural policy placed more importance on the goals related to competitiveness of agriculture and its role in rural development and preservation and protection of the environment.

The estimates of selected quantitative indicators used for evaluation of the first group of goals (indicators 1, 2 and 3 in Table 1) show that the agricultural policy largely pursued the direction of goals set forth, and can therefore be assessed as successful. The volume of production moderately grew throughout the analysed period (1992-2002), and after 1995, also the export/import coverage tended to increase. The share of expenditure for food and non-alcoholic beverages in total household expenditure gradually narrowed.

Realisation of goals related to multi-functionality of agriculture and its role in preservation of settlement and protection of the environment (the second group of goals) is difficult to evaluate only within the framework of the agricultural policy analysis. The narrowing area of agricultural land and increasing use of fertilisers and pesticides (indicators 4, 5 and 6 in Table 1) indicate that the agricultural policy failed to prevent the negative trends related to intensifying agricultural production. The first positive signs in this respect (slowing down of these trends) have only been perceived lately (1999-2002) when support to producers became increasingly coupled with area and environmentally-friendly, types of production.
On the basis of selected indicators, the policy can thus be assessed as successful only in the recent period.

**Table 1.** Scores of relative changes of basic indicators for assessing realisation of the goals of agricultural policy in Slovenia; 1992-2002

<table>
<thead>
<tr>
<th>Goal / Indicator</th>
<th>Score</th>
<th>Assessment*</th>
<th>1992-02</th>
<th>99-02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preservation of adequate level of production and providing consumers with quality food at acceptable prices</td>
<td>-5</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Production volume</td>
<td>-5</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Export/import coverage</td>
<td>5</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Share of food expenditure</td>
<td>-5</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Preservation of production potential, protection of the environment and development of rural areas</td>
<td>5</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Agricultural land</td>
<td>5</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Use of fertilizers</td>
<td>5</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Use of pesticides</td>
<td>5</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Increasing competitiveness of agriculture</td>
<td>5</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Labour productivity</td>
<td>5</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Land productivity</td>
<td>5</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Input productivity</td>
<td>5</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Labour productivity (SLO/D)</td>
<td>5</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Assuring adequate incomes</td>
<td>5</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Factor income</td>
<td>5</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
<tr>
<td>Parity income</td>
<td>5</td>
<td>YES</td>
<td>YES</td>
<td></td>
</tr>
</tbody>
</table>

* Realisation of goal (yes, no, =); subscript: trend coefficient (calculated on the basis of scores); YES/NO = qualitative estimate

Original indicators:
1) Volume index of agricultural production
2) Exports in relation to imports in the foreign trade in agro-food products (%)
3) The share of food and non-alcoholic beverages in total household expenditure (%)
4) Area of utilized agricultural land (ha)
5) Use of fertilisers per ha of agricultural land (kg/ha)
6) Volume index of pesticide use / Volume index of crop production
7) Volume index of agricultural production / Index of labour input (the number of AWU)
8) Volume index of agricultural production / Index of agricultural land
9) Volume index of agricultural production / Volume index of intermediate consumption
10) Index of labour productivity in Slovenia / Index of the labour productivity in Germany
11) Factor income of agriculture (EUR million)
12) Index of factor income per AWU / Index of average annual gross wages in economy
The goals related to increasing competitiveness of agriculture were achieved only on the domestic market, whilst the international competitiveness of Slovenian agriculture failed to improve. Productivity indicators related only to Slovenia (indicators 7, 8 and 9 in Table 1) indicated changes in the direction of realisation of competitiveness goals. In the whole analysed period, a clear tendency of increasing labour productivity (especially in the period 1999-2002) and land productivity was recorded, and also productivity of inputs increased. The results on competitiveness of agriculture were, however, entirely different when these indicators were compared to the EU Member States. The labour productivity indicator shows that not only did Slovenia fail to narrow its lagging behind the EU, but it even increased it (indicator 10 in Table 1). This was largely a consequence of slower drop in the number of employed in agriculture in Slovenia than in the EU countries. At the same time, it means that the strategic goal of increasing competitiveness of agriculture was not fully met.

The policy was more successful in meeting the income related goals. In the first period of transition, the agricultural income increased substantially and remained relatively stable in the following years (indicators 11 and 12 in Table 1). Ever since 1999, the income goal has been met above all through prices, and only recently, the policy started to assure a large part of income also directly through budgetary payments. Based on the analysis of selected indicators, agricultural policy in Slovenia in the period of transition can be assessed as a policy which, above all, pursued the income goals and only through this goal assured the changes which more or less moved towards the realisation of strategic goals also in other areas.

Concentrating predominantly on income goals is also characteristic of CAP (Tracy, 1996), which Slovenia’s agricultural policy in fact tried to pursue throughout the transition period. Initially, this was related mostly to introducing comparable measures (MKGP, 1994), whilst recently and in particular in the period of negotiations with the EU, this goal has become focused on fully adapting to the EU policy even before the accession (RS, 1999). The analysis of agricultural policy in Slovenia in terms of its adaptation to CAP, carried out on the basis of simulation, showed that the policy was quite successful in meeting this goal.
The policy in Slovenia thus gradually neared CAP as regards assuring comparable level of gross producer revenue (Graph 4), as well as the structure of support. Nevertheless, there are still differences in a way support is assured to producers. A similar level of gross revenues is thus obtained by lower budgetary supports to producer and higher market price support, i.e. less through the budget and more through prices (Graph 5). The differences in the structure of support started to narrow only with the launch of the agricultural policy reform in Slovenia, whose aim was also to shift the burden of producer support from producers to taxpayers, i.e. the budget (Erjavec et al., 2001). Also Mc-Sherry reform of CAP, which started in 1992 in the EU, had similar characteristics (Erjavec, 1997). Judging by the results of the simulation, agricultural policy in Slovenia in fact followed CAP, only with a certain time lag (Graph 5: SLOsim(t-7)). If the adjustment proceeds with the same dynamics, agricultural policy in Slovenia should be fully in line with the EU by 2007.

Graph 5.- Characteristics of producer support in the conditions of Slovenia’s policy (SLOsim) and in the conditions of CAP (SLOsim EU)

The recent dynamics of reducing market price support, which is likely to even accelerate with the accession to the EU, indicates that the alignment can be achieved even earlier.

Conclusion

Agricultural policy in Slovenia assured high and stable support to agriculture throughout the transition. Policy changes took place progressively and went in the direction of aligning with CAP. The agricultural policy can be assessed as quite successful. It managed to realise most of the strategic development goals of agriculture and achieved a high degree of compatibility with the EU. At the same time, it provided for a relatively stable agricultural production and incomes.

In addition to a fairly favourable starting position at the outset of transition, the success of Slovenia agricultural policy rests on early adoption of strategic
documents and on this basis on a (at least formal) consensus reached on the role of agriculture. The merits go also to successfully concluded negotiations with WTO which permitted a high initial level of foreign trade protection, and thereby a gradual liberalisation of the market, hand in hand with increasing of budgetary support to producers. The most significant factor, however, was the decision to join the EU and the following preparations for membership. Alignment with the EU became a universal decision making argument and made it easier for the Ministry of Agriculture to lead a dialogue with the Government, on the one hand and the representatives of agricultural interests, on the other.

Despite this relatively successful policy, it failed to solve the problem of structural lags and low competitiveness of agriculture. High producer supports, in particular in the form of foreign trade protection, eased the pressures for structural changes in agriculture. Agriculture has been only slowly adopting the rules of the market and this resulted in lower competitiveness of this activity. Because of less active structural and rural development policy, substantial structural changes and further differentiation of producers may be expected also after the accession to the EU.

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UTICAJ AGRARNE POLITIKE NA RAZVOJ POLJOPRIVREDE SLOVENIJE U PERIODU TRANZICIE I UKLJUČENJA U EVROPSKU UNIJU

Tinca S. Volk

Rezime

Predmet istraživanja je analiza razvoja agrarne politike i poljoprivrede Slovenije u periodu tranzicije i uključivanja u EU (1992-2002) i evaluacija efekata agrarne politike u pogledu realizacije ciljeva i usklađenosti sa EU. Rezultati ukazuju da tranzicija u Sloveniji nije prouzrokovala veće potrese u poljoprivrednoj proizvodnji. Ciljevi razvoja poljoprivrede su bili doneti rano

1 Dr Tinca S. Volk, istraživač, Kmetijski inštitut Slovenije, Hacquetova 17, 1000 Ljubljana, Slovenija

(1992) po uzoru na EU i u periodu tranzicije nisu se menjali. Usvojen je bio protekcionističko-razvojni koncept agrarne politike, koji je obezbeđivao relativno visoku podršku poljoprivredi. U okviru tog koncepta, u periodu tranzicije je došlo do značajnih promena u načinu delovanja agrarne politike. Preorijentacija agrarne politike događala se postepeno i odrazila se, pre svega, na promene u vrstama mera i strukturi podrške poljoprivredi.

U prvom razdoblju tranzicije osnovni mehanizam agrarne politike bila je spoljnotrgovinska zaštita u kombinaciji sa administrativnom kontrolom cena i ograničenim obinom budžetskog plaćanja, uglavnom vezanim direktno za proizvode i inpute. Promene u međunarodnom okruženju postepeno su smanjivale efikasnost takve politike, a uporedo je započeo i proces približavanja EU. Pod uticajem tih faktora, nakon 1998. godine došlo je do reforme agrarne politike i većeg prilagođavanja Zajedničkoj agrarnoj politici. Reforma je išla u pravcu otvaranja tržišta u poljoprivredi i znatnog povećanja budžetske podrške, naročito u obliku proizvodno manje vezanih plaćanja. Donete su bile nove mere u okviru politike ruralnog razvoja, koje su ojačale multifunkcionalni značaj poljoprivrede, pre svega kao faktora za održavanje okoline i prostora. Agrarna politika se postepeno uskladivala sa CAP po vrstama i sadržaju mera, kao i u pravcu povećanja budžetske podrške, a smanjivale su se i razlike u strukturi podrške proizvođačima. Rezultati pregovora omogućavaju dalje usklađivanje visine i strukture podrške i po pristupu EU, a time i ravnopravnije uslove za poljoprivredu Slovenije na jedinstvenom tržištu EU.

Agrarna politika je u periodu tranzicije obezbeđivala relativno povoljne i stabilne uslove za razvoj poljoprivrede u Sloveniji i izbegla smanjenje proizvodnje, koje je bilo karakteristično za većinu drugih tranzicijskih zemalja. Dosta uspješna je bila i u realizaciji ciljeva na području obezbeđivanja adekvatnog dohotka i povećanja produktivnosti u poljoprivredi Slovenije. I pored toga, najveći problem slovenačke poljoprivrede po pristupu EU ostaje niska konkurentnost u odnosu na sadašnje članice.