

EU ACCESSION DIRECT PAYMENT ISSUE AND FARM INCOMES IN SLOVENIA

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ABSTRACT

In this article estimation of gross value added (GVA) applying extended economic account for agriculture (EAA) model and partial equilibrium APAS-PAM model has been carried out to emphasize the importance of direct payments for farm incomes in Slovenia after its EU accession. Scenario analysis for hypothetical accession year 2004 with different levels of direct payments' complementing from national budget has been applied. Model results have been compared with agricultural income in 2000 as representative pre-accession year. Results for 2004 depend on accession scenario but show the same trends regardless the model applied. Adopting EU position of complementing direct payments up to year 2001 level significant aggravation of farm incomes at aggregate level could be expected – according to EAA results for about 15 % and in accordance with APAS-PAM forecast even more than a quarter due to negative production effects, imposed by depressed price level. Complementing direct payments from national budget up to the level eligible by current Member states would not result in marked improvement of agricultural income. GVA estimates depend on the outcome of accession negotiations regarding production quotas and reference quantities. Nevertheless, adopting current position of EU would result in stagnation of activities with relative high price level in pre-accession period (pork, poultry) and improvement position of activities which receive greater support under CAP and which economic position was extremely unfavourable in the pre-accession period (beef, coarse grains). 100 % level of direct payments would drastically change support hierarchy of agricultural commodities in Slovenia, while the positive and negative effects would be almost balanced out at the aggregate level.

Key words: agriculture / policy / economics / direct payments / farm incomes / Slovenia / EU

POMEN NEPOSREDNIH PLAČIL OB PRISTOPU K EU ZA DOHODKOVNI POLOŽAJ SLOVENSKEGA KMETIJSTVA

IZVLEČEK

V prispevku s pomočjo izračunov bruto dodane vrednosti (BDV) z razširjenim modelom ekonomskega računa za kmetijstvo (ERK) in modelom parcialnega ravnotežja (APAS-PAM) skušamo odgovoriti na vprašanje pomena neposrednih plačil po pristopu k EU za dohodkovni položaj slovenskega kmetijstva. V ta namen smo izdelali več scenarijev hipotetičnega pristopa v letu 2004, z različnimi ravnmi doplačevanja plačil za proizvode, za katere je mogoče v okviru Skupne kmetijske politike (SKP) uveljavljati podpore neposrednih plačil. Modelne rezultate smo primerjali z dohodkovnim položajem kmetijstva v letu 2000 kot reprezentativnim letom predpristopnega obdobja. Rezultati ekonomskega položaja v letu 2004 se močno razlikujejo v

odvisnosti od pristopnega scenarija, kažejo pa pri obeh modelih istosmerne spremembe. V primeru, da bi bili slovenski proizvajalci deležni zgolj 25 % vrednosti neposrednih plačil z dopolnjevanem teh plačil do ravni, izplačanih v letu 2001, lahko pričakujemo izrazito poslabšanje agregatnega ekonomskega položaja v kmetijstvu – po modelnih rezultatih ERK za okoli 15 % v primerjavi z izhodiščnim letom 2000, po APAS-PAM napovedi pa zaradi negativnih učinkov na obseg proizvodnje zaradi nižje ravni odkupnih cen celo za več kot 25 %. Dopolnjevanje plačil iz nacionalnih sredstev do ravni, ki so ga po trenutnem pravnem redu SKP deležne sedanje članice EU, ne prinaša izrazitega izboljšanja ekonomskega položaja. Ocene bruto dodane vrednosti so odvisne od rezultata pristopnih pogajanj pri kvotah in referenčnih količinah. V primeru uveljavitve rešitev, ki jih trenutno predlaga EU, bi nazadovale dejavnosti, ki so v izhodiščnem letu (in skozi celotno predpristopno obdobje) deležne razmeroma visoke cenovne ravni (prašičereja, perutninarstvo). Položaj pa bi se izboljšal pri tistih dejavnostih, ki so deležne podpor SKP in katerih ekonomski položaj je bil izrazito neugoden v predpristopnem obdobju (govedo, krmna žita). Polna vključitev v neposredna plačila SKP bi drastično spremenila hierarhijo podpor kmetijskih proizvodov v Sloveniji, medtem ko bi se na agregatni ravni pozitivni in negativni učinki skoraj docela izravnali.

Ključne besede: kmetijstvo / politika / ekonomika / neposredna plačila / dohodki / Slovenija / EU

INTRODUCTION

The European Commission (2002b and 2002c) proposed that in the next enlargement a ten-year transitional period for direct payments is introduced for new Member States. This proposal is also based on the Commission consideration that immediate full integration into the system of direct payments would lead to an unjustified rise in incomes, which would in turn hinder the necessary restructuring processes in agriculture in the new Member States (Pouliquen, 2001).

The European Union has not yet elaborated a common position about direct payments for new Member States. In its Position Paper of June 2002 (European Commission, 2002b) the EU notes that Slovenia has already introduced CAP like direct payments. With a goal that the position of Slovenian agriculture does not deteriorate after accession, the EU offered a possibility to complement ("top up") direct payments from the national budget. However, according to the EU Common Position, the total level of direct support (including "top up" payments) during the transitional period should not exceed the level of support received in 2001. This level should be set in such a way to realistically reflect the pre-accession direct income support in Slovenia and avoid new or additional schemes being created with a view to making use of the top-up possibility.

The Government of Slovenia in its reply to the possibility of "top-up" payments (The Government of the Republic of Slovenia, 2002) welcomed this possibility but at the same time expressed disagreement with the EU proposal that 2001 would be the reference year for setting the level of direct payments. It is characteristic of Slovenian agriculture that the aggregate level of producer prices of agricultural products is comparable with and in some years even higher than in the EU. Similarly as was the case after the past CAP reforms in 1992 and 2000, the level of prices will be in the period up to accession and after accession in particular, subject to further reductions. Slovenia has been progressively adjusting its direct payment schemes to the CAP direct payments schemes. In 2001, direct payments in Slovenia equalled around 40 % of the payments provided in the EU. The 2002 and 2003 Budget of Slovenia, adopted in 2001, foresees further increasing of funds for direct payments, with the purpose to compensate for the loss of income because of the drop in producer prices.

There are several reasons behind the expectations that after accession the prices of most agricultural products would drop in comparison with prices of 2000 and 2001. This expected drop will most likely come as a result of the currently higher level of prices in Slovenia, and also fierce competition on the single market. Slovenia therefore insists in its negotiating position that

in the period after accession it is granted a possibility of topping up direct payments up to 100 % of the level provided for by CAP. The Slovenian Government is convinced that only this possibility would ensure Slovenia to preserve the same economic position of agriculture after accession as prior to accession.

In the accession negotiations so far, two options have been proposed with regard to complementing direct payments from the national budget. On the one hand, the European Union proposed that after accession the total level of direct payments (including complementary payments from the national budget) should not exceed the level assured to Slovenian farmers in 2001. On the other hand, Slovenia insists that it is allowed to complement direct payments to reach 100 % of the level assured by various support schemes available under CAP. It has been pointed out on several occasions by both sides that the economic position of agriculture must not deteriorate after accession*. The proposed solutions therefore call for an economic evaluation of the situation, which would also help to answer the following questions:

1. Would the economic position of agriculture indeed essentially deteriorate (as claimed by Slovenia) in the event of the EU proposal (complementary national payments up to the total level of payments recorded in 2001)?
2. Would the economic position of agriculture indeed, or at all, improve to the degree that it would hinder the necessary restructuring (as claimed by the EU for all candidate countries) in the event of Slovenia's claim (topping up to 100 % of direct payments) or is the 100 % option necessary for Slovenia to cover the losses resulting from the expected drop in prices after accession (as claimed by Slovenia)?
3. If the level of topping up from 2001 proves to be "too low" and the 100 % level "too high" for preserving the economic position of agriculture, is there a third option, half-way between the positions of both negotiating sides?

Objective of the paper is to answer these questions on the basis of the simulations with common assumptions, using two internationally harmonised model tools: extended Economic Account for Agriculture (EAA model) and partial equilibrium sector model (APAS-PAM model; Kavčič, 2001; Erjavec and Kavčič, 2002).

The paper continues with clarification of basic assumptions applied in modelling procedure, followed by brief presentation of both models, description of scenarios simulated and results obtained. Discussion and conclusions are strictly concentrated to the topic of the paper and mainly narrowed to above posed questions.

METHODOLOGY

Common assumptions

The empirical calculations with the two models were based on the same basic assumptions concerning the reference year, estimation of producer prices after accession, level and value of direct payments, level of complementary national payments, and the selection of indicators for estimating the economic position.

Year 2000 was used as a reference year since the Economic Account for Agriculture approved by the statistical offices of both Slovenia and the EU was available for this year. Besides, that year was not marked by significant changes in individual sectors of production as was the case in

* It has never been explained what exactly is considered as "the pre-accession level". It is possible to take the last year before accession (most likely 2003), the last year before the start of the final stage of negotiations (2001) or a typical year representing the usual level of income in the whole pre-accession period. The authors chose the latter option and used the year 2000, which is also a year for which all important statistical analyses have been completed.

2001, which was inflicted by various natural disasters. The income levels in 2000 are comparable with the income levels in the years after 1997, which makes the year 2000 the representative reference year of the pre-accession period. The economic position in 2000 will serve as a benchmark for comparison with the foreseen situation in 2004 – a hypothetical year of Slovenia's accession to the European Union.

Setting the expected producer prices after accession is of a great significance for the modelling exercise. It should be based on the comparison of current prices in Slovenia with that in the EU and should also take into account considerable regional differences in price levels across the single market. In addition, the model has to consider the expected price movements in the EU in the period up to accession and estimate potential additional pressures on prices resulting from poor competitiveness of certain agro-food sectors. On the basis of past research work (Erjavec *et al.*, 1998 and 2002; Kavčič, 2000), the following steps were taken to estimate expected producer prices after accession:

- i. First, the existing estimates of expected producer prices in the EU in 2004 (European Commission, 2002a; FAPRI, 2002) were obtained. If these estimates were not available, our calculations were based on the current price ratios.
- ii. Second, prices were corrected with regard to regional differences in the EU. Prices in Austria and North-Eastern Italy were analysed. On top of that, additional corrections of prices were made taking into account the differences of product quality, self sufficiency and the current effect of the agricultural policy measures.
- iii. Third, prices were corrected taking into account the differences in competitiveness of food-processing industry. On the basis of a study comparing the competitiveness of Slovenian food-processing industry and the experience of Austria after its accession in 1995, additional expert corrections were made.

Following steps i. to iii., producer prices obtained are presented in table 1.

Table 1. Producer prices applied in modelling outcome for year 2004
Preglednica 1. Pri modeliranju upoštewane odkupne cene za leto 2004

	€ t ⁻¹			Index / indeks 2000 = 100	
	2000	2003	2004	2003	2004
Wheat and rye / Pšenica in rž	151.6	120.0	108.0	79.1	71.2
Maize / Koruza	122.6	104.0	111.0	84.8	90.5
Barley / Ječmen	131.4	112.0	105.0	85.3	79.9
Other cereals / Druga žita				85.3	79.9
Sugar / Sladkor	241.0	269.0	294.0	111.6	122.0
Permanent crops / Trajni nasadi				94.2	95.2
Grape and Wine / Grozdje in vino				100.0	92.0
Other crops / Drugi rastlinski proizvodi				100.0	100.0
Beef meat / Goveje meso	2425.0	2103.0	2048.0	86.7	84.5
Milk / Mleko	289.8	280.0	255.0	96.6	88.0
Pork meat / Prašičje meso	1567.0	1472.0	1296.0	93.9	82.7
Sheep and goat meat / Meso drobnice	3859.0	3761.0	3565.0	97.5	92.4
Eggs / Jajca	1264.7	974.0	761.0	77.0	60.2
Poultry meat / Piščančje meso	1034.2	948.0	893.0	91.7	86.4
Other animal products / Drugi živalski proizvodi				100.0	100.0

Total values of direct payments for the years 2000 and 2001 as well as for the years prior to accession (2002 and 2003) were obtained from the data of the Ministry of Agriculture, Forestry and Food about the budgetary expenditures and adopted commitments in the national budget.

The levels of direct payments after accession were set on the basis of various scenarios. The quotas and reference quantities were set either on the basis of the EU position (European Commission, 2002b and 2002c) or through the expert estimate about the final agreement between the two sides. The authors estimate that the final agreement about the quotas and reference quantities will be based on the current production data (years 2000 and 2001). The quotas and reference quantities used are only an expert estimate and do not prejudice at all Slovenia's negotiating position in this area.

According to the literature no detailed proposal of the European Commission exists about the method of calculation of complementary direct payments. Different calculations of "topping up" are possible, based either on the total amount earmarked for direct payments, the amounts of support by individual market organisations or by individual measures in the observed year. The authors choose the method that is the most plausible one and probably the closest to the actual economic situation of agriculture, i.e. that the level of topping up is set on the basis of the total level of funds earmarked for this purpose under individual support scheme (e.g. for beef) in a selected year.

Scenarios

The simulations for the following accession scenarios for the year 2004 were made compared to the base year 2000 (scenario SLO 2000):

- EU 01 (eu25 SLO01): expected level of prices in 2004 and 25 % of direct payments, taking into account the expected outcome of negotiations on quotas and reference quantities, together with complementary payments from the national budget reaching the total level of direct payments from the national budget by activities in 2001.
- EU 03 (eu25 SLO03): expected level of prices in 2004 and 25 % of direct payments, taking into account the expected results of negotiations on quotas and reference quantities, together with complementary payments from the national budget reaching the foreseen total level of direct payments from the national budget in 2003.
- EU 100 (eu25 SLO100): expected level of prices in 2004 and 100 % of direct payments, taking into account the expected results of negotiations on quotas and reference quantities (technical level of agreement).

Table 2. Basic assumptions for the scenarios applied
Preglednica 2. Osnovne predpostavke pri posameznih scenarijih

Scenario / Scenarij	Year Leto	Production Proizvodnja		Price level Cenovna raven	Direct payments Neposredna plačila		Quotas and refer. quantities Kvote in referenčne količine
		EAA	APAS-PAM		EU	SLO	
SLO 2000 (base year / izhodiščno leto)	2000	2000	2000	2000	/	2000	/
SLO 03 (EAA only / samo ERK)	2003	2000	/	2003	/	2003	/
EU 01 (eu25 SLO01)	2004	2000	2004	2004	25 %	top up to 2001 level	Expert estimate
EU 03 (eu25 SLO03)	2004	2000	2004	2004	25 %	top up to 2003 level	Expert estimate
EU 100 (eu25 SLO100)	2004	2000	2004	2004	25 %	75 %	Expert estimate

With EAA model the situation in year 2003 (last pre-accession year assumed) has also been simulated with SLO 03 scenario – assuming expected level of prices in 2003 and agreements reached about the level of direct payments by individual market organisations. Basic assumptions of all scenarios are presented in table 2.

Methodology of Economic Account for Agriculture Model

Economic account for agriculture (EAA) provides basic statistical information about the ex-post economic position of agriculture and is a basis for calculation of gross domestic product. The calculations of EAA are usually made by national statistical offices. In the period 1999–2002 a harmonisation of the calculations in Slovenia with international standards took place, assisted also by EUROSTAT. Development of the EAA in Slovenia has been carried out in a synchronised manner by the model calculations (model EAA) of the Agricultural Institute of Slovenia. The Institute developed a sophisticated form of EAA, extending it to include also ABTA tables (activity based tables for agriculture). Such a new and original model is a basic agricultural policy information system in Slovenia used for various ex-post and ex-ante analyses and purposes. The results of these calculations are presented in various research and government publications (e.g. yearly sector reports of the Ministry of Agriculture, Forestry and Food).

Modelling of various scenarios of agricultural policy in this EAA model is based on individual agricultural activities (activity-based sector model), therefore all the data used for EAA are available at the level of individual activity, or better, individual agricultural production (e.g. wheat production, milk production, etc). Such an approach provides for better transparency, clearly discernible mutual dependence of individual data, and above all, consistency of data sources and their systematic control and use.

An ex-ante static simulation of the effects of various differences in prices and budget in the conditions of unchanged production levels was made for the needs of the study. This helped us to estimate the effects of changed economic conditions, whereas at the same time the effect of these changes on production and consumption was excluded, as well as potential changes in the technology and consumer behaviour that took place in the period since the base and the observed year. Simulations were based on the data from the EAA by activities. During the simulation process, physical indicators about the production and intermediate consumption in 2000 were multiplied by the foreseen price levels in 2004 (and 2003), taking into account the limitations of the set quotas and reference quantities. For the intermediate consumption, only changes of prices of agricultural products that enter further production as raw materials (e.g. concentrated animal feed, cereals used for animal feed, green fodder) were taken into account. The levels of direct payments by individual activities were in line with definitions of individual scenarios.

Methodology of APAS-PAM Model

APAS-PAM is a national sectoral multiproduct partial equilibrium model. It was developed at the University of Ljubljana (Chair for Agricultural Economics, Policy and Law) in collaboration with the research groups from the Universities of Athens, Vienna and Reading in the period 1997–2001. It is a synthetic model which meets the basic theoretical requirements (Stoforos *et al.*, 2000). Its purpose is to measure medium-term effects of agricultural policy changes. The obtained results of analyses were presented to domestic and foreign expert audience and were published in several academic publications (e.g. Erjavec *et al.*, 2001 and 2002; Mergos, 2002).

APAS-PAM model deals with 10 key products comprising 80 % of agricultural production in Slovenia. They are all "PSE products", which means that they are included in OECD calculations of producer supports in agriculture (OECD, 2001). Thus, the PSE (Producer Support Estimate) database is – together with the economic account for agriculture – the main database for this

model. Both models included in this study therefore use the same databases but differ in terms of methodology and technique of calculations. APAS-PAM model allows measuring the effects in various groups of economic indicators. It includes the effects of changed prices and agricultural policy measures on supply, demand, trade flows and in turn on gross and net value added of agriculture on the whole and of individual 10 product groups.

Endogenous variables in this model are the same as the variables for EAA. The research group has tried to examine the effects of changed prices and levels of direct payments. In contrast to EAA model, in this model also demand and supply respond to the changes in the economic position and the assumed technical progress and consumer preferences between the base year and the year of various scenarios are taken into account. The model is price-driven by taking into account changes in policy and prices in the form of revenues per unit, through the series of demand and supply elasticities. A new partial equilibrium between demand and supply is established. Model results about changed supply are entered into a rather simplified – compared to EAA model – calculation of gross and net value added, which permits a rapid calculation of farm income position. Calculation of income is not entirely comparable with EAA model, differences occur largely in cost and technological coefficients and in dealing with by- and intermediate products. Despite the differences, the results may be compared – in relative relations – with the results obtained by EAA model, primarily at the aggregate level. Differences comprise mostly the dynamic effects of changes which are not revealed by the EAA model because of fixed physical production. Data sources for both models are entirely comparable.

RESULTS AND DISCUSSION

Gross Value Added*

Table 3 shows the EAA model results obtained for gross value added by final activities, which is in the model EAA cleared off the effect of intermediate consumption flows between activities (e.g. maize silage as an input for livestock production). It shows the results for agriculture as a whole and for some basic activities receiving direct payments under CAP support scheme.

The results show that in 2003 the economic position is expected to slightly improve (2.2 % at the aggregate level in comparison with 2000), solely as a consequence of changed prices (drop at aggregate level) and changes related to the agreed rise in direct payments. Drop in prices will be offset by higher budgetary inflows, in particular in animal production (beef and sheep meat production). In this case, the improvement of economic position in fact occurred due to rather unfavourable position of these activities in the past.

The estimated economic position of agriculture in 2004 depends largely on the accession scenario. However, all three scenarios foresee a substantial drop in aggregate prices. The level of direct payments will determine to what extent the loss of income will be compensated for at the aggregate level.

In the event that Slovenian producers receive only 25 % of direct payments with complementary payments up to total level of payments in 2001 (EU 01), this would lead to a marked deterioration of their economic position. At the aggregate level, gross value added would

* The economic position of agriculture may be measured by various income indicators. In literature, gross value added (gross return on farm level) is the most often used indicator according to the concept of Economic Account for Agriculture, which is calculated as a difference between revenues, including direct subsidies, and intermediate consumption, which includes most of variable costs. At the level of agriculture, gross value added covers depreciation and costs of labour and capital.

fall by almost 15 %, in the conditions of unchanged production and intermediate consumption levels.

Table 3. Gross value added of agriculture according to various accession scenarios (EAA model)

Preglednica 3. Bruto dodana vrednost pri posameznih scenarijih (rezultati EAA modela)

	Agriculture total Kmetijstvo skupaj	Cereals (without maize silage) Žita (brez koruzne silaže)	Beef meat Goveje meso	Milk Mleko	Sheep and goat meat Meso drobnice	Others Ostalo
€ million / v milijonih €						
SLO 2000	464.2	29.1	26.2	99.9	6.3	302.7
2003: SLO 03	474.6	28.1	38.3	109.9	6.7	291.6
2004: EU 01	395.2	19.3	15.3	91.4	5.9	263.3
EU 03	426.6	27.8	36.4	93.7	6.3	262.4
EU100	467.9	38.3	63.6	95.5	6.9	263.7
SLO 2000 = 100						
SLO 2000	100.0	100.0	100.0	100.0	100.0	100.0
2003: SLO 03	102.2	96.5	146.5	110.0	105.9	96.3
2004: EU 01	85.1	66.1	58.4	91.6	92.6	87.0
EU 03	91.9	95.4	139.3	93.9	99.1	86.7
EU100	100.8	131.4	242.9	95.6	108.8	87.1
SLO 03 = 100						
2003: SLO 03	100.0	100.0	100.0	100.0	100.0	100.0
2004: EU 03	89.9	98.9	95.0	85.3	94.0	90.0
EU100	98.6	136.3	166.1	86.9	103.0	90.4

Slightly better but still unfavourable result (drop in aggregate gross value added by around 8 %) would be obtained if it were agreed in the negotiations that direct payments are complemented up to the level guaranteed by the Slovenian government to its producers in 2003, the last year before accession (EU 03). According to this scenario, economic position would even improve in some activities (notably, beef production) compared to the base year. However, such an interpretation is not justified if the results of the EU 03 scenario are compared to the situation in the last year before accession, i.e. in 2003 (SLO 03). The income position of agriculture would in that case in the first year after accession deteriorate by more than 10 % compared to the last year before the accession.

The paper also tries to answer what would be the income position of Slovenian farmers if the equal rights regarding direct payments would be granted to them as received by the present EU agricultural producers. The answer to this question depends largely on the outcome of negotiations on quotas and reference quantities as well as on the right to complement direct payments from national budget. Should the solutions expected by Slovenian side, which is slightly higher than is the latest EU Common Position, be accepted (EU 100), economic position of agriculture would slightly improve compared to 2000. Aggregate gross value added would remain stable and the economic position of some activities would significantly improve. On the other side, the income situation in some sectors could deteriorate significantly. Deterioration would be the most marked in the activities with highest price levels in the base year (and throughout the pre-accession period).

According to the most favourable EU 100 scenario for Slovenia, marked changes would occur in the economic position of individual activities. The position would improve significantly in the activities which receive greater support under CAP and which economic position was extremely

unfavourable in the pre-accession period (beef, cereals for animal feed). Full participation in the CAP direct payments scheme would change drastically the hierarchy of agricultural producer supports in Slovenia, whereas at the aggregate level, positive and negative effects would be quite balanced out. However, 100 % level of direct payments would surely not lead to such an improvement of the situation that one could speak of an unjustified improvement of income position of agriculture after accession, let alone about it hindering the necessary restructuring of Slovenian agriculture.

Table 4 shows the APAS-PAM model results of the gross value added for agriculture as a whole and for individual activities which benefit from CAP direct payment support schemes.

Table 4. Gross value added of agriculture by various accession scenarios (APAS-PAM model, SLO 2000 = 100)

Preglednica 4. Bruto dodana vrednost pri različnih scenarijih (rezultati APAS-PAM modela, SLO 2000 = 100)

	Total PSE commodities Skupaj PSE proizvodi	Cereals Žita	Beef Goveje meso	Milk Mleko	Sheep and goat meat Meso drobnice	Other PSE products Ostali PSE proizvodi
SLO 2000	100.0	100.0	100.0	100.0	100.0	100.0
EU 01 (eu25 SLO 01)	73.8	56.4	92.7	83.6	107.5	38.6
EU 03 (eu25 SLO 03)	78.9	70.3	117.8	83.6	109.9	38.6
EU 100 (eu25 SLO 100)	97.2	106.4	218.4	83.7	138.0	38.4

Despite the differences in calculation methodology, the results obtained by the APAS-PAM model are comparable with the results obtained by the EAA model. In the event of the realisation of the European Commission's proposal about direct payments and topping up of payments up to the level of 2001 (EU 01), there would be a significant deterioration of the income position of agriculture. Because of the dynamic measuring of effects, changes indicated by this model are even more pronounced than those indicated by the EAA model. And even though the dynamic response of supply will not be fully realised in the first year after accession, the results of the model do reveal how extremely unfavourable the proposed solutions are. In comparison with the base position in 2000, we can speak about a dramatic deterioration of the economic position of agriculture.

In the event of the scenario EU 03 which allows topping up of direct payments up to the level provided in the Slovenian budget for 2003, the situation would improve in some activities (beef, sheep and goat meat) but would still deteriorate significantly at the aggregate level. Given the fact that according to this scenario, the income position in the activities which do not benefit from the CAP direct payment schemes (milk, pig, eggs and poultry production) would deteriorate considerably, even significant improvements of income in some activities (beef, sheep and goats production) would not bring about positive shifts at the aggregate level. One could predict that gross value added for the PSE products in question would drop by around 20 % from the level achieved in year 2000.

Preservation or only partial deterioration of the income position in agriculture can only be expected in the event of application of full direct payments scheme as is the case with the current Member States (EU 100). And even this scenario is based on the assumption of slightly higher quotas and reference quantities as offered in the EU Common Position of July 2002. Under this most optimistic scenario, income position in some activities would improve significantly. However, when speaking of an improvement, it should be mentioned again that the improvement would occur in the activities (beef sector, maize production) which were in the pre-accession

period in considerably unfavourable position. The general finding of the APAS-PAM model largely confirmed the results obtained by the EAA model.

The level of direct payments

The EAA model allows quite precise estimations of the level of necessary funds for direct payments by individual CAP support schemes. The total amount of funds for direct payments increased significantly after 2000, whereas in 2004 it will depend largely on the eventual accession scenario. In 2001, Slovenia provided for around 40 % of the total level of direct payments by Common Market Organisations (CMO). This proportion will increase into more than two-thirds of the total value provided under CAP schemes in 2003. A precise level cannot be calculated prior to the conclusion of negotiations on quotas and reference quantities.

Table 5. Funds for direct payments by CMOs according to various accession scenarios
Preglednica 5. Vrednost neposrednih plačil po CMO pri različnih scenarijih

	Agricultur e total Kmetijstvo skupaj	Cereals (without maize silage) Žita (brez koruzne silaže)	Beef meat Goveje meso	Sheep and goat meat Meso drobnice	Other CMO Ostale CMO	State aids Državne podpore
€ million / v milijonih €						
SLO 2000	28.8	17.6	6.8	0.9	1.1	2.4
2003: SLO 03	69.2	30.1	34.7	1.3	0.7	2.3
2004: EU 01	36.5	17.9	15.0	0.9	0.9	1.7
EU 03	67.9	30.1	34.7	1.3	0.8	1.0
EU100	109.2	43.3	60.9	1.9	1.0	2.0
SLO 2000 = 100						
SLO 2000	100.0	100.0	100.0	100.0	100.0	100.0
2003: SLO 03	239.9	170.5	507.2	150.8	70.3	96.4
2004: EU 01	126.4	101.6	219.2	104.1	86.7	69.9
EU 03	235.4	170.5	507.2	150.8	73.3	41.2
EU100	378.7	245.7	889.3	220.9	96.9	83.7

CMO = Common Market Organisations / Skupne tržne ureditve

The greatest changes in the amounts for direct payments are expected to occur in the beef sector. According to the best-case scenario, the amount of direct payments in total would increase almost threefold in comparison with year 2001. However, as seen in Tables 3 and 4, even so high an increase in direct payments does not lead to a marked improvement of economic position of agriculture, but rather covers for the losses incurred by a drop in prices and balances out the differences in the level of protection of individual agricultural activities.

CONCLUSIONS

On the basis of the same data and similar assessment criteria (scenario analysis and selection of indicators), model simulations have been carried out using two different but both standardised tools for assessing the effects of changed agricultural policy. Despite the difference in theoretical construction of the models, similar results were obtained and on the basis of these results it is possible to answer the questions posed at the beginning of this paper.

1. Would the economic position of agriculture indeed essentially deteriorate (as claimed by Slovenia) in the event of the EU proposal (complementary national payments up to the total level of payments recorded in 2001)?

According to the model results, there is no doubt that in the event of the solutions proposed by the EU, there would be a marked deterioration of the farm income of Slovenian agriculture. The funds foreseen for direct payments fail to compensate for the expected drop in prices after accession.

2. Would the economic position of agriculture indeed, or at all, improve to the degree that it would hinder the necessary restructuring (as claimed by the EU for all candidate countries) in the event of Slovenia's claim (topping up to 100 % of direct payments) or is the 100 % option necessary for Slovenia to cover the losses resulting from the expected drop in prices after accession (as claimed by Slovenia)?

According to the results, we can conclude that a significant improvement of farm income in some activities included under CAP support schemes (especially beef) would be recorded in case of 100 % level of direct payments (equal treatment approach). On the other hand, at the aggregate level there would be no marked improvement even in the event of simultaneous favourable final outcome in the area of quotas and reference quantities. In case of Slovenian agriculture, one cannot at all speak of any unjustified improvement that would hinder necessary restructuring. On the contrary, full participation in the direct payments system would perhaps help level out some of the economic inconsistencies between individual products, remaining from the pre-accession period, despite numerous changes and adaptations of the agricultural policy.

3. If the level of topping up from 2001 proves to be "too low" and the 100 % level "too high" for preserving the economic position of agriculture, is there a third option, half-way between the positions of both negotiating sides?

The study has tried to define also the possible compromise solution under the scenario which would allow topping up of direct payments up to the level assured from the national budget for 2003. The model results indicate that also this solution would be unjustified from the point of view of farm income. The fact is that farm incomes would in the first year after accession deteriorate considerably in comparison with the last year before accession. This would come as a result of the expected drop in prices. This means that limiting direct payments at the pre-accession level would necessarily lead to a deterioration of income position after accession. It is a usual practice under CAP that the expected "price shocks" are eased to the extent possible. A similar solution was also used in the case of Austria after its accession, when transitional direct payments were introduced. Perhaps such a mechanism is not necessary in the case of Slovenia as the income shock can partly be compensated for by a rise in direct payments to the level set out under current CAP.

The authors are well aware of the limitations of any model simulation and a great degree of uncertainty regarding the expected price changes which may eventually affect the income results. However, no matter which price scenario is taken into account, the EU position, which limits the level of complementary direct payments from the national budget to the levels recorded in a certain reference year before accession, is economically unjust and unfair from the basic principles of rational agricultural policy. In any event, limiting direct payments at the pre-accession level prevents a "soft" landing to a new economic environment. This could only be achieved by sensibly adjusting the level of direct payments to the changes in prices.

The model results indicate that the goal of preserving the pre-accession economic position of agriculture at the aggregate level, advocated by both negotiating sides, can only be achieved by an assurance that Slovenia may complement direct payments up to 100 % of the total level of direct payments provided to present Member States under CAP. Probably, equal direct payments system would reduce the risks of significant drops in prices that might realistically be expected after accession. And even in this case it will be difficult to guarantee the economic position of agriculture at the pre-accession levels.

POVZETEK

Višina in vir neposrednih plačil Skupne kmetijske politike je pomembno pogajalske vprašanje širitve Evropske unije. Evropska unija nima enotnega mnenja glede višine plačil, obenem pa predlaga, da je iz nacionalnega proračuna mogoče dopolnjevati višino neposrednih plačil do ravni, ki so jo kandidatke zagotavljale leta 2001. S tem naj bi ohranili predpristopno raven dohodka v kmetijstvu. Slovenija ima z Evropsko unijo primerljivo cenovno raven, postopno pa tudi uvaja in dviguje raven primerljivih neposrednih plačil. Leta 2001 je dosegla 40 % vrednosti neposrednih plačil Skupne kmetijske politike (SKP), po sprejetem proračunu pa naj bi se ta raven do leta 2003 dvignila na 75 %. Slovenija v pristopnih pogajanjih vztraja, da ji je dopuščena možnost doplačevanja do 100 % ravni, ki jo zagotavljajo različne sheme podpor SKP. V prispevku poskušamo odgovoriti predvsem na vprašanji, kaj se bi zgodilo z ekonomskim položajem slovenskega kmetijstva ob uveljavitvi predloga EU (dopolnjevanje plačil do ravni plačil iz leta 2001), in ali je pravica do 100 % doplačevanja nujna za pokrivanje izgub, nastalih s pričakovanim padcem cen po pristopu. V ta namen smo opravili modelne izračune bruto dodane vrednosti (BDV) z razširjenim modelom ekonomskega računa za kmetijstvo (ERK) in modelom parcialnega ravnotežja (APAS-PAM).

Izdelali smo različne scenarije hipotetičnega pristopa v letu 2004, z različnimi ravnmi doplačevanja plačil za proizvode, za katere je mogoče v okviru SKP uveljavljati podpore neposrednih plačil. Rezultate smo primerjali z dohodkovnim položajem kmetijstva v letu 2000, za katerega že obstajajo zaključene ocene dohodkovnega položaja z ekonomskim računom za kmetijstvo ter predstavlja glede na dohodkovne ravni reprezentativno leto predpristopnega obdobja. Pri opredelitvi proizvajalčevih cen po pristopu smo izhajali iz primerjave cen med EU in Slovenijo ter upoštevali gibanja svetovnih cen kakor tudi regionalne in konkurenčne razlike v cenovnih ravneh.

Ekonomski račun kmetijstva nam daje temeljno informacijo o `ex-post` ekonomskem položaju kmetijstva. Z modelno različico tega računa, ki jasno razmejuje posamezne kmetijske proizvode, pa je mogoče opraviti tudi `ex-ante` analize različnih sprememb cen in proračuna ob nespremenjenem fizičnem obsegu proizvodnje. S tem je bila pridobljena ocena o učinkih spremenjenih ekonomskih razmer, vendar ob izločitvi vpliva teh sprememb na proizvodnjo in porabo. Sektorski model APAS-PAM je nacionalni model parcialnega ravnovesja, ki zajema 10 ključnih proizvodov in 80 % slovenske kmetijske proizvodnje. Z modelom lahko presojamo učinke, ki jih spremembe cen in ukrepov kmetijske politike povzročijo pri ponudbi, povpraševanju in trgovinskih tokovih ter posledično na neto ali bruto dodani vrednosti kmetijstva. Kljub razlikam v teoretičnih izhodiščih lahko rezultate obeh modelov primerjamo (predvsem v relativnih razmerjih), še zlasti na agregatni ravni.

V prispevku so predstavljeni rezultati za BDV po končnih aktivnostih. BDV je razlika med prihodki, ki vključujejo subvencije, in vmesno porabo, ki je korigirana za saldo tokov vmesne porabe med aktivnostmi. Rezultati ekonomskega položaja v letu 2004 se močno razlikujejo v odvisnosti od pristopnega scenarija, kažejo pa pri obeh modelih istosmerne spremembe. V primeru, da bi bili slovenski proizvajalci deležni zgolj 25 % vrednosti neposrednih plačil z dopolnjevanjem teh plačil do ravni, izplačanih v letu 2001, lahko pričakujemo izrazito poslabšanje agregatnega ekonomskega položaja v kmetijstvu – po modelnih rezultatih ERK za okoli 15 % v primerjavi z izhodiščnim letom 2000, po APAS-PAM napovedi pa zaradi negativnih dinamičnih učinkov celo za več kot 25 %. Neposredna plačila ne pokrijejo pričakovanega padca cen. Navkljub izboljšanju pri nekaterih dejavnostih (prireja mesa drobnice) so padci dohodkov, ocenjeni z modelnimi izračuni, ki upošteva tudi odzive ponudbe na spremembe ekonomskih razmer, izjemno izraziti v primerjavi z izhodiščnim letom 2000. S strani EU predlagan pristopni scenarij je torej za slovensko kmetijstvo zelo neugoden.

Dopolnjevanje plačil iz nacionalnih sredstev do ravni, ki so ga po trenutnem pravnem redu SKP deležne sedanje članice EU, ne prinaša tako izrazitega izboljšanja ekonomskega položaja kot bi pričakovali. Ocene bruto dodane vrednosti so odvisne od rezultata pristopnih pogajanj pri kvotah in referenčnih količinah. V primeru uveljavitve rešitev, ki jih predlaga trenutno pogajalsko izhodišče EU, v skladu z rezultati obeh modelov ni za pričakovati, da bi v primerjavi z letom 2000 prišlo do izboljšanja ekonomskega položaja kmetijstva. Vsekakor pa bi se ekonomski položaj nekaterih dejavnosti pomembno izboljšal. Nazadovale bi predvsem dejavnosti, ki so v izhodiščnem letu (in skozi celotno predpristopno obdobje) deležne razmeroma visoke cenovne ravni. Položaj pa bi se izboljšal pri tistih dejavnostih, ki so deležne podpor SKP in katerih ekonomski položaj je bil izrazito neugoden v predpristopnem obdobju (govedo, krmna žita). Polna vključitev v neposredna plačila SKP bi drastično spremenila hierarhijo podpor kmetijskih proizvodov v Sloveniji, medtem ko bi se na agregatni ravni pozitivni in negativni učinki skoraj docela izravnali.

Raziskovalna skupina se dobro zaveda omejitev simulacij s pomočjo modelov in velike stopnje negotovosti glede pričakovanih sprememb cen, ki lahko vplivajo na rezultate o dohodkih. Vendar pa je neodvisno od tega, kateri cenovni scenarij upoštevamo, stališče EU, ki omejuje raven dopolnjevanja neposrednih plačil iz nacionalnega proračuna na raven v določenem referenčnem letu pred pristopom, ekonomsko neenakopravno in nepravilno z vidika osnovnih načel racionalne kmetijske politike. Omejitve neposrednih plačil na raven iz predpristopnega obdobja v vsakem primeru onemogoča „mehak“ pristank v novo ekonomsko okolje, kar bi lahko dokaj preprosto dosegli s prilagoditvijo ravni neposrednih plačil spremembam v proizvodjalčevih cenah.

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