Summary

We constructed a national agricultural sector APAS/ABTA model (Agricultural Policy Anaysis Simulator / Activity Based Table of Accounts) designed for estimating annual growth rates of value added in the Slovenian agriculture in the current medium-term period. The model is based on two existing tools after which it was named. The first was developed for the purpose of estimating the changes in agricultural producers' income after Slovenia's accession to the EU. This model has been updated with newer data and adapted for annual value added forecasting. The second tool provides ample data on the ratios in agricultural production. We have used these data to estimate intermediate consumption for the calculated production levels.

We further prepared annual forecasts of value added growth for ten products in the current medium-term period. The products remain the same as in the original APAS model: wheat, maize, barley, sugar beet, milk, beef, pork, poultry, sheep and goats, and eggs. Our forecasting period coincides with the launching of the 2003 CAP direct payments reform. As a comparison to the standard scheme of direct payments, which in Slovenia was implemented until the year 2007, we examined the potential effect of adopting a regional single payment scheme and the implications of a hypothetical full liberalisation of trade in agricultural products. The selected scenarios have not been chosen because they are regarded as highly probable but rather as interesting theoretical alternatives for testing the model's capacity and presenting the dilemmas of agricultural policy.

The results of our calculation showed that the overall level of the analysed production would rise moderately up until 2013 if the currently applied standard scheme was retained, while the conditions in a liberalised market (lower prices and termination of financial assistance) would cause its relatively rapid decrease. The total volume of the analysed crops would increase at varying rates in all three observed schemes, although this rise would mainly be underpinned by the continuing growth of production intensity. The total livestock number and hence the total meat production would increase by 2013 by keeping the standard scheme. Both would also grow somewhat in the regional scheme. The introduction of regional payments would change the structure of the analysed production: the number of cattle would drop while the number of sheep and goats would increase. If the agricultural market was liberalised, the total number of livestock animals would fall.

The overall value added of the ten analysed agricultural products would also drop gradually in the period up until 2013 in the standard scheme regulation, largely as a result of the growing gaps between the rises in agricultural producer prices and prices of intermediate consumption for their production. These figures represent the model's external data. In the standard or regional scheme model, producer prices of the analysed products are projected to generally fall slightly in the first few years of the forecasting period and rise again towards the end of the period, although they would not reach the level from 2005. In the free market, these prices would drop much more, by approximately 25%. The rises of intermediate consumption prices are projected to be consistent with inflation.

Calculations showed that the overall value added of the ten analysed products would drop by approximately 25% in 2013 over 2005 in the currently applied standard scheme and by approximately 50% in the regional single payment scheme. The reform of agricultural policy would result in such a sharp drop mainly owing to the

calculation methodology, since subsidies on production are not part of value added, in contrast to subsidies on products. If trade in agricultural products were fully liberalised, the analysed value added would already turn negative in 2010 when production costs would exceed its value as a result of lower product prices and abolition of all agricultural subsidies.

Due to the expected decrease in agriculture's value added and particularly the anticipated relatively fast development of other activities, the proportion of agricultural activity to total economy's value added can be expected to drop further in the current medium-term period. This proportion is projected to shrink from the current 2.3% to around 1% of total value added in this period. If the sector was fully liberalised, agricultural production would probably become inviable in a relatively short time. In order to keep the agricultural sector viable in the future, it will therefore be necessary to reconsider its many social roles that are not strictly limited to food production.

Key words: agriculture, forecasting, economic position, value added, modelling, Slovenia, European Union