

EU Single Farm Payment in the GTAP Data Base: Coupled, Decoupled or only Somewhat Decoupled and How to Get the Decoupling Right?

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1 Introduction

Since 1992 the Common Agricultural Policy (CAP) of the European Union has been subjected to diverse reforms. The implementation of the single farm payment (SFP) and its corresponding concept of decoupling support from production in 2003 was clearly one of the most important ones. However, a strong debate about the degree of decoupling of those single farm payments is still going on today.

Our literature review reveals diverse studies discussing how decoupled direct payments in general were before the decoupling from production has taken place. Besides there are papers that are concerned with specific payments, e.g., the area payments or per capita payments, and some studies which already consider the single farm payment itself. SCKOKAI and ANTÓN (2005) developed an approach to estimate the degree of decoupling of the 1992 area payments for arable crops in the EU including risk-related effects which results, as they stated, cannot be used to estimate the degree of decoupling of the SFP. Beyond this study several of these papers identify approaches how to model decoupled payments taking different channels of decoupling into account. These coupling mechanism, arising due to some allocative effects of payments, can be specified as uncertainty, imperfect credit, land and labor markets and farmers expectations about future payments (BHASKAR and BEGHIN, 2009). GOHIN (2006) analyzed the results of available impact studies focusing on decoupling issues and tested their sensitivity using a CGE model with regard to the assumptions made and pointed out that further research in modeling the SFP and the related assumptions, and furthermore the understanding of the functioning of factor markets is required.

Given this background we assess in our paper, how sensitive results of simulation models are with regard to the mode utilized to model the SFP. Starting point of our analysis is the revised implementation of domestic support in version 8 of the Global Trade Analysis Project (GTAP) data base. Our focus is on EU agricultural domestic support and particularly on the SFP. The revised agricultural domestic support of version 8 of the GTAP data base originates from the OECD's producer support estimate (PSE) tables of the year 2007.

2 Literature review: Decoupling

3 Extended GTAP model framework

4 Sensitivity Analysis

4.1 Creation of different data bases

4.2 Policy change and simulation

5 Results

6 Conclusion

This sensitivity analysis reveals strong differences in results, but particularly in the production responses of food and agricultural sector. Accordingly, it is obvious that the allocation of the SFP in the GTAP database is a decisive factor for model's results and needs further considerations. Beyond that reveals our literatur survey many difficulties and pitfalls to take into account when modeling decoupled payments. So far coupling factors are not available which could be used to adapt the SFP in the GTAP data base.

Future work should include an estimation of coupling factors. Such an estimation would clearly enable us to calibrate the database in an improved way. There are a few different methods to calculate coupling factors that can afterwards be used in CGE models to reproduce SFP according to their degree of decoupling. This econometric estimates could determine coupling factors which replaces the assumptions currently made to build the GTAP data base and thus, helps to provide a more realistic view of the effects of the EU SFP.