



Available online at www.sciencedirect.com

ScienceDirect

Journal of Policy Modeling 36 (2014) 1036–1047

*Journal of
Policy
Modeling*

www.elsevier.com/locate/jpm

Farm level effects of policy reforms in Germany: First empirical evidence

Jan-Henning Feil^{*}, Oliver Musshoff, Tobias Roeren-Wiemers

Department of Agricultural Economics and Rural Development, Georg-August-Universität Göttingen, Germany

Received 22 April 2014; received in revised form 2 October 2014; accepted 10 November 2014

Available online 22 November 2014

Abstract

The farm level effects of policy reforms in agriculture have been discussed in the literature for a long time. However, empirical studies based on field data are not yet available. In this paper, the effects of the EU agricultural reforms in the last two decades and the introduction of the German Renewable Energy Sources Act on agricultural enterprises are investigated. For this, panel data of arable farms in the German federal state of North Rhine-Westphalia for the period from 1984/85 to 2010/11 is analyzed by means of a fixed effects model. The results suggest that the farm income level, transmission effects on land rental markets and the farm income risk were significantly affected by the respective reforms.

© 2014 Society for Policy Modeling. Published by Elsevier Inc. All rights reserved.

JEL classification: C33, C54, Q18

Keywords: Agricultural policy; Policy impact analysis; Panel data; Fixed effects model

1. Introduction

The political conditions, under which agricultural enterprises produce in Europe and especially in Germany are exposed to a steady reform process. In this context, the reforms of the EU Common Agricultural Policy (CAP) and the introduction of the German Renewable Energy Sources Act (EEG) should be particularly mentioned. With regard to the EU's agricultural policy,

^{*} Corresponding author at: Platz der Göttinger Sieben 5, D-37073 Göttingen, Germany. Tel.: +49 551 39 4856.

E-mail address: jan-henning.feil@agr.uni-goettingen.de (J.-H. Feil).

intervention prices for agricultural commodities were reduced and, in compensation, direct payments coupled to production introduced by the MacSharry reform in 1992. A further reduction of intervention prices and an increase of direct payments in return were decided through the Agenda 2000. From then on, the latter were no longer linked exclusively to the production, but also to farming requirements regarding rural conservation and to the observance of minimum standards in environmental, labor and animal protection. The Fischler reform in 2003 further developed the Agenda 2000 changes by principally decoupling the direct payments from production and introducing a fixed single payment per eligible hectare. With the introduction of the German EEG, the preferred feeding-in of electricity from renewable energy sources, e.g. biomass, wind and solar, into the grid was arranged and fixed feed-in tariffs were guaranteed to the producers.

In the context of the current CAP reform implemented in 2014, the financial allocations to agriculture are re-arranged once again. Merely a part of the previous fixed single payment per eligible hectare remains. In addition, every farmer obtains a payment per hectare for his compliance with certain management measures under the heading of “Greening”, which are conducive to climate and environmental protection. Examples of such measures are the maintenance of permanent grassland, diversification of crops grown and the maintenance of ecological compensation areas. These decisions will be in existence for the next six years until the financial framework of the CAP in 2020 will be rearranged again.

EU law stipulates the need for ongoing impact assessments of already implemented and potential future reforms in many policy areas, in particular those of agricultural and rural development (European Commission, 2005). With this, the responsibilities of policy makers shall be ensured and the achievement of objectives of the reforms shall be measured. Consequently, there is a need from agricultural politicians and their advisors for suitable methods of policy impact analysis of past and future reforms taking into account the respective policy objectives.

With regard to the past reforms of the agricultural sector, the respective effects on the economic success of agricultural enterprises as well as on transmission effects – in particular on land rental markets – have been intensively discussed in the literature for some time (e.g. Chatzis, 1997; Daugbjerg & Swinbank, 2007; Kilian, Antón, Salhofer, & Röder, 2012). In addition, the effects of policy reforms on price risks in agricultural commodities are examined (e.g. Chavas & Kim, 2006; Sckokai & Moro, 2006; Sckokai & Moro, 2009). Here the question arises whether a changed price risk results in a likewise changed income risk for agricultural enterprises. So far, studies focus largely on quantifying the impacts of policy changes by using model-based simulations (e.g. Britz, Heckeley, & Perez, 2006; Féménia & Gohin, 2013; Happe & Balmann, 2003). In this context, the behavioral assumption of a fully informed and exclusively profit-maximizing homo economicus is often being made. However, real economic agents usually pursue multiple objectives, which also consider the striving for security and other non-monetary motivations (e.g. tradition or social recognition) besides the pursuit of profit (e.g. Benz, 2006). In addition, they act at least partially with bounded rationality (e.g. Simon, 1956). Therefore, there is the risk that policy impact analyses, which are based on simulations, misjudge the type and the speed of agricultural enterprises’ adaptive behavior to changed political conditions. Extensive empirical studies of the actual farm level effects of policy changes based on field data are not yet available.

Therefore, the objective of this paper is to investigate empirically the impacts of the major EU agricultural reforms over the past 20 years, that is the MacSharry reform, the Agenda 2000 and the Fischler reform, as well as the impacts of the introduction of the German EEG at farm level. For this purpose, a farm level panel data set of 22 arable farms in the German federal state of North Rhine-Westphalia for the period from 1984/85 to 2010/11 is used. By means of a fixed effects (FE) model, the impacts of the potential political structural breaks on the farm income level, the

Download English Version:

<https://daneshyari.com/en/article/967731>

Download Persian Version:

<https://daneshyari.com/article/967731>

[Daneshyari.com](https://daneshyari.com)