The impact of modulation; modeling first and second pillar CAP policies

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Introduction

The aim of this paper is to assess the economic impact of the transfer of funds from direct income support to farmers (Pillar One) to rural development money (Pillar Two) of the Common Agricultural Policy (CAP) through the compulsory modulation mechanism, as provided for under Article 10 of Council Regulation (EC) No 1782/2003. Modulation was introduced, originally as a voluntary mechanism, in 2000 as a means of increasing support for rural development within the CAP. This is achieved by transferring a proportion of the Pillar One budget to the funding of rural development measures under Pillar Two. This requirement became mandatory in 2003 as a result of the Mid Term Evaluation of the CAP. This currently applies to the EU-15, however compulsory modulation will apply to the twelve new Member States that acceded to the EU in 2004 and 2007 when their Pillar One payments reach the same level as those of the EU-15. For the 2007-13 programming period, compulsory modulation increases the financial support available to rural development measures by 8 billion euros to 88 billion euros.

Scope of the Study and Methodological Approach

This paper, therefore, aims to provide a quantitative and qualitative assessment of the impacts of this transfer of funds from Pillar One to Pillar Two of the CAP through the use of the compulsory modulation mechanisms on the social and economic performance of the agriculture sector and rural areas. More specifically, it studies the impact on the environment, the competitiveness of the agriculture sector, on rural communities and national rural development budgets. The study also considers the re-distribution effects of modulation, within and between Member States, between economic sectors and types of holdings. This study is innovative as it is the first that models explicitly the various measures (all three axis) of the second pillar of the CAP in a quantitative way.

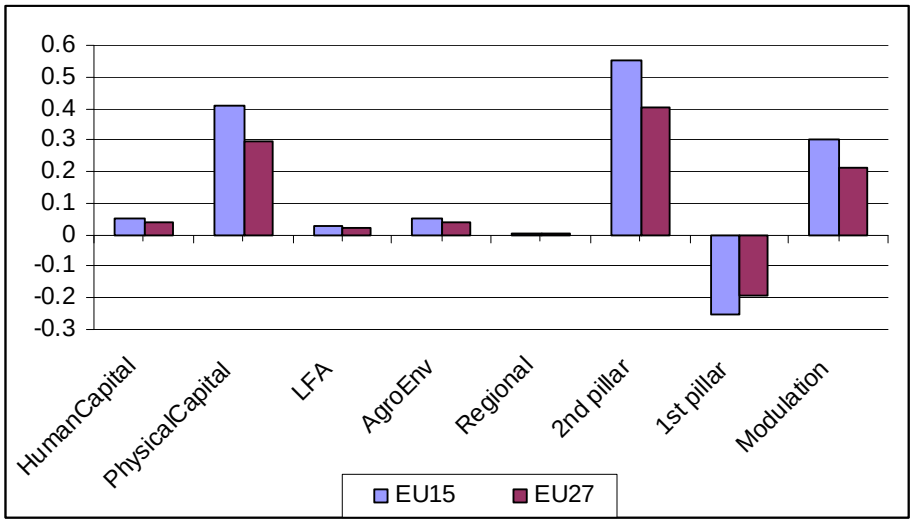
Specifically, it considers the impacts of compulsory modulation under two distinct scenarios, within the time horizon of 2013, and across the EU27. The first scenario consists of the current rules under which compulsory modulation operates (5% modulation rate and associated franchise and distribution rules). The second scenario comprises the changes proposed under the CAP 'Health Check' in May 2008 (an additional 8% by 2013, with further increases according to farm size).

Methods

In the Modulation project the commodity focus and regional / territorial focus have to be connected. The global economy-wide dimension is covered by an economic general equilibrium model (LEITAP, see, Meijl et al.2006). ESIM - an EU-wide partial equilibrium model- is providing more agricultural detail for the EU-25 countries, CAPRI, an EU25 regional partial equilibrium model, is distributing this impact to the regional (NUTS2) level (see, Britz 2007). ESIM's main contribution is the projection of developments in EU agricultural markets into the future. CAPRI's main contribution is changes in CAP policies and the regional impact (NUTS2 level). To cover modulation impacts the CAPRI model is

extended with article 69 payments within the first pillar and with the second pillar measures. LFA, N2000 and Agri Environmental payments are directly implemented in CAPRI, and the remaining measures are captured by linking the costs and production technology of CAPRI to simulation results of LEITAP, where those other measures are explicitly implemented. LEITAP is a global computable general equilibrium model that covers the whole economy (Meijl and Tongeren, 2002, Meijl et al., 2006, Banse et al. 2008). A key feature of modulation is that some measures like physical and human capital investment have dynamic impacts. To include these dynamics the LEITAP model is extended to a recursive dynamic version with endogenous technological change by specifying a relation between investments and productivity change.

Figure1: Production volume of primary agriculture (% change progressive modulation relative to baseline in 2013)



Results and discussion

The overall production effect due to progressive modulation is positive for primary agriculture in the EU15 and EU27. The impact for EU15 is larger than for the EU27 as for the NMS modulation hold only for the last years while it is in place for the EU15 for the whole period. Next to the overall impact of progressive modulation this Figure shows the impact of various groups of second pillar measures, the impact of the whole second pillar and the impact of reducing the first pillar. The positive production effect is due to a positive effect of redistributing the second pillar money. Within pillar two measures, especially impact of physical capital investments is largest. A small positive impact have human capital investments, LFA payments and agri-environmental payments. Reducing the first pillar has a slightly negative impact on production due to that part of the payments are still coupled in some countries in the baseline scenario and due to that decoupled payments have minor production effects. Modulation has further a positive impact on competitiveness, environment and quality of life.

References:

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