Policy Incentives as Behavioural Drivers of Beef Enterprises in Ireland: Where are the Kinks?

Authors:
Michele McCormack. Teagasc/NUIG E-Mail: Michele.McCormack@teagasc.ie
Cathal O'Donoghue. Teagasc

Abstract

The Common Agricultural Policy (CAP) has been highly influential in terms of shaping the structure of Irish Agriculture, particularly in terms of the dry stock sectors. The availability of subsidies has a direct effect on farmer decisions to produce and on the production systems adopted. Historical payments to farmers have therefore played a part in shaping the beef industry that we observe today.

In this paper we consider the incentives associated with the CAP over time. Our primary focus is on subsidies that were available to the beef sector, and we investigate the behavioural pressures associated with these incentives. Previous empirical studies in the field of labour economics predict that agents will choose to supply labour until the marginal disutility becomes equal to the marginal benefits. In 1978 Burtless and Hausman developed a method known as *the non-linear budget set estimation method* which states that if agents are utility maximising then they must be on the linear part of the budget set or at a convex kink point. This method examines the behavioural response to a policy change. In contrast we are looking at the causal effects associated with non-linear budget sets as drivers of behaviour

Using a static farm model, based on stylised farms and plausible values taken from the Teagasc National Farm Survey (NFS) 1995, we applied all eligible subsidies for each year from 1982 to 2012, and constructed a budget set that varies by stocking rate and farm size. The model is divided into three distinct time periods: pre MacSharry 1982-1992; the MacSharry era 1993-2004; the Fischler reforms which introduced decoupling 2004 – present. We find that subsidies in the form of direct payments and in particular the CAP reform payments of the MacSharry era introduced very strong incentives. These incentives are evident in the non-linear budget sets and associated kink points where the marginal livestock unit per hectare limit is reached. In this framework non-linear refers to budget constraints that are linear up to a certain point and then kink or change direction, indicating a marginal change has occurred. Large kinks are associated with large marginal changes.

We examine three types of budget sets, focusing separately on Direct Payments, Gross Output and Family Farm Income and investigate the role of direct payments as a potential driver of beef farmer behaviour.