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Insurance on agricultural prices indexes

Abstract
In this talk, I will be investigating optimal insurances designed on the agricultural price index. There are three main challenges in designing optimal insurance contracts. The first challenge is to choose a suitable model for commodity prices. Commodities are goods, therefore, they are affected by demand, supply, speculation and economic risk variables (e.g., inflation). As a result, a good model has to include the impact of all these economic factors. The second challenge in designing optimal insurances is to find correct premium rules for insurances on commodities. Since commodities are usually non-traded this leads us to deal with market prices of risk. The third challenge is to design an optimal insurance contract. The no-moral-hazard assumption along with the so-called Marginal Indemnification Function (MIF) method can help to find optimal solutions. Considering all these challenges, in this talk, I will design an optimal insurance contract on commodities and find out how economic factors can affect the optimal design.

The mathematical results are ultimately encountered with the UK agricultural index prices and the design of a missing insurance market in the UK will be discussed.