Title: Quantifying the Prestige Oil Spill Over Effect on the Basque Fishing Industry

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QUANTIFYING THE PRESTIGE OIL SPILL OVER EFFECT ON THE BASQUE FISHING INDUSTRY

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Abstract

The main objective of this paper is to analyze the economics effects that the Prestige oil spill over (2003) had on the Basque coastal fishing industry by means of a two-stage stochastic production frontier approach. The first stage is based on the econometric specification of a parametric production frontier based on pooled microeconomic data for vessels operating during the years 1999, 2003, 2004 and 2006. In the second a technical efficiency (TE) model is developed in order to explain the factors influencing on it, including the characteristics of fishing vessels and captains and fishing business itself. Finally, we are comparing the results obtained by the one-stage (Coelli, 1992) and the two-stage (Battese and Coelli, 1995) estimation methods. Our results indicate a substantial and statistically significant decrease on the incomes of artisan sub-fleet (around 30%) and a relatively moderated one (11%) on purse seines.