

Title: **Investment and capital dynamics under long-term changes in marine fish communities: the case of French fleets exploiting the Bay of Biscay fisheries**

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Abstract: This paper deals with capital mobility for artisanal vessels (of less than 24 meters in length) and with its structural adaptation, considering long-term changes in marine fish communities, using the Bay of Biscay fisheries as a case study. Long term changes are related to the impacts of fishing, to changes in the physical environment as climate change, or both. Hence, changes in the relative abundance of species in a fish community have impacted fisheries but at different degrees according to individual fishing strategies implemented. The aim is to valuate the probability for a boat to leave the fleet in terms of its technical characteristics, economic performance and of its localisation, under long-term changes in marine fish communities. This probability has all the more an important play on the regional economic activity than fishing industry is highly regionally based. The estimated model is a logit model, which also estimates the marginal effect of explanatory variables on the leaving probability. Particularly, we study the effect of boat characteristics and economic results on this probability. This leads to a logistic curve of a growing rate of the probability to leave the fleet. The rate value is not constant but changes in terms of fishing boats age, in contrast with the result obtained in the linear probabilistic model.