

Title: **Consumer Surplus in Fisheries**

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Abstract: Establishing an effective management of former open access fisheries can increase resource rents from close to zero to numbers as high as several hundred Mio \$ p.a., as it has been the the case in Iceland's cod fishery. Whenever the corresponding harvesting rights are given out free of charge as in the commonly applied grandfathering approach, these resource rents constitute a significant producer surplus. The effect of management on consumer surplus has been studied to a much lesser extend. In this paper we derive conditions on the natural dynamics of the fish stock, harvesting costs and consumer preferences under which consumer surplus under effective management is lower than in an unregulated fishery. This potentially gives rise to an additional distributional problem in managed fisheries with grandfathered ITQs, as they may generate revenues for ITQ holders not only by increasing the efficiency of the fishery, but in part also by shifting welfare from consumers to ITQ holders. We conduct a bioeconomic modeling analysis of how the fisheries transformations from open access (OA) to maximum economic yield (MEY) management affect consumer surplus. First, we compare the open access with the MEY equilibrium and derive conditions under which consumer surplus under MEY management is higher or lower than under OA. Second, we study the effects on consumer surplus during the transition phase from an OA fishery to a fishery that is managed under MEY in the long run.