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Title:

On the Fair Valuation of Food by Means of an Insurance Model.

Abstract :

We suggest a modular approach to determine the “fair” sustainable value *FSV* of a tradable good. Namely, we define *FSV* to be the sum of market consistent price *M* of a good with an add-on *A*, which takes the monetary equivalent of future sustainability impacts of a good on the key stakeholders (e.g. future generations) into account:

$$(1) FSV = MP + A$$

The market price *MP* in the right-hand side of above expression can be approximated by means of market observation, whereas *A* covers future sustainability relevant events based on assumptions with much poorer empirical evidence. Firstly, without a realistic perception of disadvantaged or advantage on a specific sub-group in the society and with it, a system that can allocate the measured net impact to the players in the value chain, the value of *A* becomes meaningless or might even cause serious wrong incentives. Second, neither the likelihood, nor the severity of the future net-impact of the economic activities on the stakeholders are certain which require *cautiously* implemented valuation process based on updated information at valuation date *t*. These challenges give rise to a selection of an actuarial framework from insurance domain, which has evolved since centuries, offering state of art the methods and terminology for dealing dynamically as learning framework for such a situation. More precisely, we suggest an insurance “product” with bonus-malus system with which we would evaluate the add-on *A* with necessary *caution* avoiding exaggeration and unfair allocation/reallocation of net-impact, and an institution managing the “liabilities” (defined by the future stochastic “claims” of stakeholders/players driven by the sustainability relevant events) of the companies and operating with reserves covering the future outcomes of sustainability relevant events accordingly. Therefore, at least internally, instead of using the term “cost” we suggest the term “*sustainability insurance premium*” as an add-on to market price of the goods in general. Because it takes the above-mentioned challenges in modular and well-structured way into account. With a suitable framework selected from insurance domain, we can adopt well established and coherent insurance terminology as well as the ontology in a natural way.