Dividing Goods *And* Bads under linear preferences

H. Moulin
(joint with, A. Bogomolnaia, F. Sandomirskyi, E. Yanovskaia)

When we dissolve a partnership, or divide a mixture of assets and liabilities, we allocate simultaneously goods and bads, or even items viewed by some participants as a good and by others as a bad, with corresponding positive or negative marginal utilities.

We extend the familiar Competitive rule to such *mixed problems*, including the subclasses of *all-goods* and *all-bads* problems which we compared in our previous paper. It turns out that mixed problems are naturally partitioned according to the feasibility, or not, of the null utility profile corresponding to the ex ante status quo (where there is nothing to divide).

If at least one feasible utility profile is positive, the Competitive rule behaves like an all-goods problem: it picks the unique maximum of the product of (positive) utilities. If no feasible utility profile is positive, the Competitive rule behaves like an all-bads problem: it picks all critical points of the product of *dis*utilities on the efficient frontier. The surprising feature of this solution is that individual utilities (above or below zero) are all of the same sign: the task of dividing the non disposable items must be either good news for everyone, or bad news for everyone.