

In analogy with Proposition 1, one implication of Proposition 2 is that it throws a bridge between the income share elasticity and Lorenz dominance. While obviously the discussion of Proposition 1 applies also to case (a) of the proof (which actually delivers first order SD), case (b) is connected with Shorrocks' generalized Lorenz dominance: as is well known, if the function $S(y, \theta)$ used in the proof does not change sign, generalized Lorenz curves never intersect (e.g., Lambert, 2001, p.55).⁵

3 Concluding remarks

The notion of income share elasticity can have useful economic applications, for example when dealing with the relationship between income distribution and the price elasticity market demand (Benassi *et al.*, 2002). In this note we have outlined the relationship between (first and second order) stochastic dominance, and the way income share elasticity depends on the distribution parameters; this also allows to see some related implications in terms of Lorenz dominance.

References

- [1] Benassi C., A.Chirco and M.Scrititore (2002): Income Concentration and Market Demand, *Oxford Economic Papers*, forthcoming.
- [2] Esteban, J. (1986): Income Share Elasticity and the Size Distribution of Income, *International Economic Review*, **27**, 439-44.
- [3] Hirshleifer J. and J.G.Riley (1992): *The Analytics of Uncertainty and Information*, Cambridge University Press, Cambridge.
- [4] Lambert, P.J. (2001): *The Distribution and Redistribution of Income*, Manchester University Press, Manchester.

⁵This can be directly seen by defining the generalized Lorenz curve as $L(p, \theta) = \int_0^p y(p, \theta) dp$, where $y(p, \theta)$ satisfies $F(y, \theta) = p$ so that $dp = f(y, \theta) dy + F_\theta(y, \theta) d\theta$. By implicit differentiation, $y_\theta(p, \theta) = -F_\theta(y(p, \theta), \theta) / f(y(p, \theta), \theta)$ so that $L_\theta(p, \theta) = \int_0^p y_\theta(p, \theta) dp = - \int_0^p F_\theta(y(p, \theta), \theta) / f(y(p, \theta), \theta) dp = - \int_{y_m}^y F_\theta(y, \theta) dy = -S(y, \theta)$. As established above, the latter is positive in case (b) of the proof of Proposition 2.