

The Dual Theory of Measuring Social Welfare and Inequality

Rolf Aaberge

Research Department, Statistics Norway

Outline of the talk

1. Expected and rank-dependent utility theories of social welfare
2. Statistical characterization of Lorenz curves
3. Normative theories for ranking Lorenz curves
4. Ranking Lorenz curves and measuring inequality when Lorenz curves intersect

References

Aaberge, R. (2000): Characterizations of Lorenz curves and income distributions, *Social Choice and Welfare*, **17, 639-653.

Aaberge, R. (2001): Axiomatic characterization of the Gini coefficient and Lorenz curve orderings, *Journal of Economic Theory*, **101, 115-132.

*Aaberge, R. (2007): "Gini's Nuclear Family", *Journal of Economic Inequality*, **5**, 305-322.

**Aaberge, R. (2008): Ranking Intersecting Lorenz Curves, [Social Choice and Welfare](#). DOI 10.1007/s00355-008-0354-4, 2008.

Aaberge, R. (2006): Asymptotic distribution theory of empirical rank-dependent measures of inequality. In V. Nair (Ed.): *Advances in Statistical Modeling and Inference - Essays in Honor of Kjell A. Doksum*, World Scientific, 2006.

*Atkinson, A. B. (1979): On the measurement of inequality, *Journal of Economic Theory*, **2**, 244-263.

Ben Porath, E. and I. Gilboa (1994): Linear measures, the Gini index, and the income-equality trade-off, *Journal of Economic Theory*, **64**, 443-467.

Bonferroni, C. (1930): *Elementi di Statistica Generale*. Seeber, Firenze.

D'Addario, R. (1936): Curve di concentrazione, elasticità, flessibilità, densità media e densità marginale dei redditi, Cressati, Bari.

Donaldson, D. and J. A. Weymark (1980): A single parameter generalization of the Gini indices of inequality, *Journal of Economic Theory*, **22**, 67-86.

Donaldson, D. and J. A. Weymark (1983): Ethically flexible indices for income distributions in the continuum, *Journal of Economic Theory*, **29**, 353-358.

- Ebert, U. (1987): Size and distribution of incomes as determinants of social welfare, *Journal of Economic Theory*, **41**, 23-33.
- Fields, G.E. and J.C.H. Fei (1978): On inequality comparisons, *Econometrica*, **46**, 303-316.
- Giaccardi, F. (1950): Un criterio per la costruzione di indici di concentrazione, *Rivista Italiana di Demografia e Statistica*, **4**, 527-538.
- Hardy, G.H., J.E. Littlewood and G. Polya (1934): "Inequalities", Cambridge University Press, Cambridge.
- Kolm, S.Ch. (1969): The optimal production of social justice, in "Public Economics", (J. Margolis and H. Guitton, Eds.), Macmillan, New York/London.
- Kolm, S.Ch. (1976): Unequal inequalities I, *Journal of Economic Theory*, **12**, 416-442.
- Mehran, F. (1976): Linear measures of inequality, *Econometrica* **44**, 805-809.
- Muliere, P. and M. Scarsini (1989): A note on stochastic dominance and inequality measures, *Journal of Economic Theory*, **49**, 314-323.
- Shorrocks, A.F. (1983): Ranking income distributions, *Economica*, **50**, 3-17.
- Weymark, J. (1981): Generalized Gini inequality indices, *Mathematical Social Sciences*, **1**, 409-430.
- *Yaari, M.E. (1987): The dual theory of choice under risk, *Econometrica*, **55**, 95-115.
- Yaari, M.E. (1988): A controversial proposal concerning inequality measurement, *Journal of Economic Theory*, **44**, 381-397.
- Yitzhaki, S. (1983): On an extension of the Gini inequality index, *International Economic Review*, **24**, 617-628.
- Zoli, C. (1999): Intersecting generalized Lorenz curves and the Gini index, *Social Choice and Welfare*, **16**, 183-196.
- Zoli, C. (2002): Inverse stochastic dominance, inequality measurement and Gini indices, *Journal of Economics Supplement*, **9**, 119-161.