Bayesian Assessment of Lorenz and Stochastic Dominance

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1 Matlab Programs

- dominance_prog_gamma.m: a main program for assessing Lorenz and Stochastic dominance. This function computes the overall probability dominance for FSD, SSD, and LD given in Table 4 and 6 and the probability of dominance for given population proportion u for $0.001 \leq u \leq 0.999$. The latter is used to plot the probability curves in Figures 5, 6, and 7.
- Gamma4_mixture.m: a main program to obtain the MCMC draws of mixture of gamma distribution with 4 components given in Table 3. It is straightforward to modify the function to obtain parameter estimates of mixture of gamma distribution with any number of components.
- clas_dominance.m: a main program to obtain the p-values given in Table 7.
- goodfittest.m: a function to obtain goodness of fit results in Table 2.
- dirich_rnd.m and gamm_rnd.m: these functions are used in Gamma4_mixture.m

2 Other Files

- data_urban: the dataset used in the paper. This dataset is an input to the Gamma4_mixture.m, clas_dominance.m, goodfittest.m.

- gamma4_1999.mat, gamma4_2002.mat, gamma4_2005.mat, and gamma4_2008.mat contain the posterior draws of mixture of gamma distributions with 4 components for the years 1999, 2002, 2005, and 2008, respectively. These mat files are the input to the function dominance_prog_gamma.m.

3. EViews files

File name	Results
prob plots.wf1	Figures 5, 6 and 7
figure 8.wf1,figure 8.prg	Figure 8
figure 9.wf1, figure 9.prg	Figure 9
r_gof.wf1, r_gof.prg	Goodness-of-fit values in Table 5
ml estimates.wf1	Maximum likelihood estimates in Table 3