EC320 HOMEWORK
PROBLEM SET No. 2

The economy of Lorenzgini has ten million people and two sectors (traditional and modern). In the year 1990, three million people live in the modern sector and earn $2000 per month. The rest live in the traditional sector and earn $1000 per month. As a result of new investments in the modern sector during the 1990s, two million people moved out of the traditional sector by year 2000 to take up new jobs in the modern sector. Per capita incomes *within* each sector did not change throughout the decade.

(a) Graph the Lorenz curves for 1990 and 2000 respectively. (Plot cumulative income shares of successive deciles, i.e., the poorest 10%, 20%, 30% etc. of the population, and connect successive points with a straight line).

(b) Calculate the Gini coefficient (G) and coefficient of variation (CV) of the income distributions in 1990 and 2000 respectively.

(c) Discuss what the different inequality measures (the Lorenz curve, G and CV) indicate regarding the change of inequality between 1990 and 2000. If they do not provide similar answers, explain why.

(c) Suppose the poverty line is $1500 per month. Compute the head-count ratio and poverty gap ratio before and after the change.

(d) Write a brief (verbal) assessment of the development experienced by this economy between 1990 and 2000, based on changes in the following development indicators: per capita income, inequality and poverty.