

This paper proposes an empirical analysis of the worldwide distribution of the Gini index for income. The aim of the paper is to verify the “common belief” that a country with a Gini index above 0.4 may be vulnerable to socioeconomic instability. The empirical analysis is based on a number of assumptions and hypothesis introduced in previous contributions to the literature made by one of the authors of the manuscript. The paper's conclusion is that the appropriate alarming threshold for the Gini index is not 0.4 but 0.5.

I am not very convinced by the motivation of the paper. The idea that a certain level of inequality can be considered alarming is far from being shared by scholars and policy makers. The authors indicate a short list of references to support this view. However, assuming that the list of references provided is complete, a reader easily concludes that the literature does not indicate any alarming level for the Gini index.

If, on the one hand there are good reasons to believe that the level of the Gini coefficient can be negatively correlated with a number of socioeconomic phenomena, including growth, substantial freedom, and political stability. On the other, the idea of setting an alarming threshold is hard to follow. The Gini coefficient is an aggregated index which summarizes information on the entire distribution of income in a scalar. Countries with same Gini coefficient can have rather different income distribution and dramatically different socioeconomic condition, g. e. according to the World Bank, France and Egypt have a very similar Gini, but it is unquestionable that they face different risk of socioeconomic instability.

Beside the motivation, the analysis uses convoluted arguments to get to its the main conclusions. I try to list the main steps of the analysis with a few general comments:

- 1) The authors claim that that an economic system is both efficient and fair (in the sense of Rawls) if all Pareto optimal equilibria occur with identical probability. This result is derived from a contribution recently published by one of the authors. I wonder whether this result depends on the implicit assumption that a Rawls’ fair allocation is necessarily a Pareto optimal allocation. If this is the case, the authors should discuss under what conditions this assumption holds. Moreover, given that the paper is an empirical exercise, the authors should discuss whether such conditions are realistic when dealing with distribution of income in a country.
- 2) Then the authors claim that an exponential income distribution will emerge spontaneously when many possible general equilibria can occur with same probability. This statement is based on previous contributions by one of the authors. Then they conclude that, if one observes an exponential distribution of income it must be the case that this is the result of a fair and efficient general economic equilibrium. However, they are providing a sufficient condition and not a necessary condition. Can the authors rule out the possibility to observe an exponential income distribution which is not the result of a fair and efficient general equilibrium?
- 3) Then, based on restriction derived in previous contributions of one of the authors, the paper suggests that an exponential distribution of income must necessarily translate into a Gini index no larger than 0.5. The authors suggest that this proves that, provided that the distribution of income is exponential, a Gini below 0.5 is not to be considered alarming.

Although not explicitly stated in the text, this must necessarily come from what claimed in point 2).

- 4) Then the authors test whether the distribution of Gini coefficients around the World follows an approximately normal distribution. They cannot reject the null hypothesis of normal distribution based on World Bank's data in three years.

- 5) Finally, the alarming level of Gini is empirically determined assuming that, in peaceful times, political instability is a rare event. A rare event for the authors is an event occurring with a small probability (p about 0.003). Then the authors use the normal approximation of the worldwide Gini coefficient distribution in each year to find the level of Gini that has a probability to occur lower than p . The corresponding level of Gini is above 0.5 in all years. The authors claim that this suggests that the alarming level of Gini is above 0.5. Here I have some doubts about the correctness of the syllogism. I see the interest of looking at correlation between Gini and the probability of political instability to occur. However, comparing how unlikely are two events does not provide any evidence of an alarming threshold for the Gini index. In order to prove anything about a causal correlation between the Gini and political instability the authors should pursue a different empirical strategy.