Term

Gini Index

April, 2007

Definition

The Gini Index is a measure of a country's income inequality.

Background

Corrado Gini developed the Gini Coefficient in his 1912 paper "Variability and Mutability" to express a distribution's difference from uniformity.[1] The Gini Index, based on Gini's work, is used to describe the income inequality in a population, commonly between countries and within countries.

Countries publish their own Gini Index. Many institutions, including the World Bank and the CIA calculate the Gini Index of countries world-wide.[2]

Income Inequality within 'optimal limits'[3] promotes growth. The rate of income inequality in the world's wealthy countries avoids extreme egalitarianism and extreme inequality. There is no correlation between Gini and wealth for poorer countries.[4]

Use

The Gini Index can be used to:

- Measure the extent of inequality in income distribution in a given country;
- Compare income inequality between countries, sub-groups within a population, or in separate geographical regions of a country.[5]

However, some limitations to the use of the index should be noted:

1. Income inequality is an incomplete measure of socio-economic inequality:
    - The Gini Index measures income inequality and not wealth inequality.
    - Non-cash social benefits are excluded from the calculation. Welfare provision through public services is ignored.

---

1 Corrado Gini**, "**Variabilita e Mutabilita**", Journal of the Royal Statistical Society**, Vol. 76, No. 3, February, 1913, pp. 326-327.

2 The CIA World Factbook lists the Distribution of Family Income.

3 In their study for the World Institute for Development Economics Research, Giovanni Andrea Cornia and Julius Court (2001) conclude that a Gini Index falling between 25 and 40 is optimal for growth. Extreme egalitarianism inhibits growth by reducing incentives for work and creating room for corruption in the redistribution of resources. Conversely, extreme inequality decreases growth prospects because it reduces social cohesion and stimulates social conflict.

4 In rankings published by the CIA, Chile, Argentina, Mali, and Botswana all have Gini Indices above 50. For low and medium income countries, the relationship between income inequality and wealth is weak.

5 Shujue Yao's work is an example of how the Gini Coefficient can be used to compare sub-populations within a country. Yao, Shujie, "On the Decomposition of Gini Coefficients by Population Class and Income Source: A Spreadsheet Approach and Application," **Applied Economics**, Vol. 31, 1999, pp. 1249-1264.

2. The Gini Index does not depict important aspects of the income inequality distribution:
   - The Index does not reflect economic diversity. If the country being measured contains multiple independent economic regions, the Gini Index will reflect the income inequality across the entire country and not the actual inequality experienced by residents of each region.
   - Different income distributions can have an identical Gini Index.[6]
3. Granularity criteria complicate the calculation.
   - The calculation is affected by the way a population is grouped. If a distribution is divided into four quartiles, the Gini Index will be greater than if the same distribution were divided into ten deciles.
   - There are no standards for reporting granularity. If one country reports data on deciles and another on quintiles, the Gini comparison is not meaningful.

Structure

The Gini Index is calculated by determining the difference between existing conditions and perfect income equality. A score of 100 indicates perfect income inequality. A score of zero indicates perfect income equality.

Israel's Rank

According to Israel's Central Bureau of Statistics, Israel's Gini Index was 38.7 in 2005, an increase over the previous year.[7]

End.

[6] The CIA Gini Index ranks both Israel and Egypt with 34, but the income distributions in the countries are not the same.

[7] The 2005 income survey, published by Israel's Central Bureau of Statistics, catalogs the evolution of income inequality since 1997.