

Indicator 10.4.2

Indicator Name, Target and Goal

Indicator 10.4.2 Redistributive Impact of fiscal policy

Target 10.4 Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality

Goal 10 Reduce inequality within and among countries

Definition and Rationale

○ Definition

This indicator is measured by the Gini coefficient (before and after redistribution), which is used as an indicator showing the equality of distribution of income.

○ Concepts

- Gini coefficient: Arrange household members in ascending order of income, and draw a graph with the cumulative ratio of income on the vertical axis and the cumulative ratio of household members on the horizontal axis (this curve is referred to as the Lorenz curve). The Gini coefficient is the ratio of the bow area surrounded by the Lorenz curve and the equality line to the triangular area below the equality line, and takes a value between 0 and 1. The closer it is to 0, the smaller the income disparity, and the closer it is to 1, the larger the income disparity.

- Initial income: Total of employee income, business income, farming/livestock income, property income, industrial homework income, private benefits (allowance, corporate/individual pension, and other income)

- Total income: Initial income plus social security cash benefits (public pension, unemployment benefits, children's allowance, etc.)

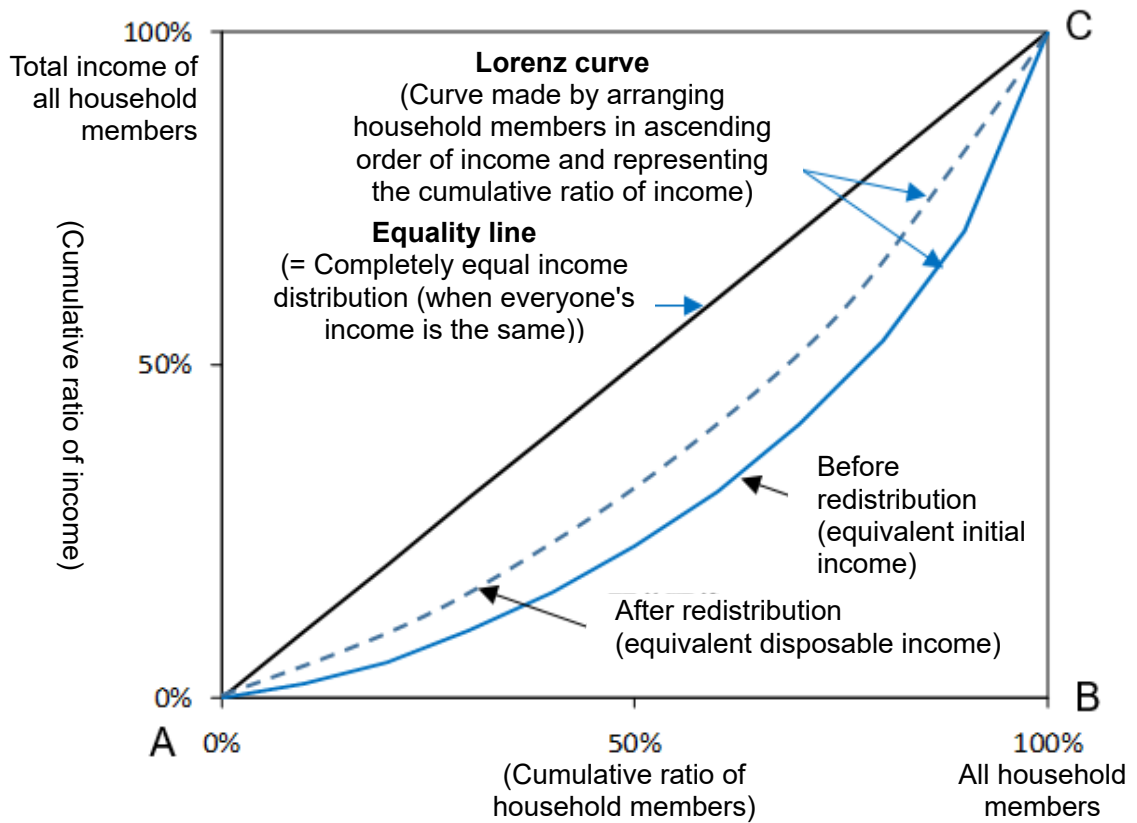
- Disposable income: Disposable income is total income minus taxes, social insurance premiums and etc.

- Equivalent initial income (before redistribution): Adjusted* initial income of the household divided by the square root of the number of household members

- Equivalent disposable income (after redistribution): Adjusted household disposable income divided by the square root of the number of household

members (excluding in-kind benefits such as medical care, long-term care, and education).

*Since the number of household members and the household composition differ depending on the household, households with the same income level don't necessarily have the same standard of living for each household member. To convert household income into each household member's living standard, it is necessary to consider the number of household members and the age structure of household members, but such conversion is extremely complicated. Accordingly, OECD has adopted a method in which the income of a household divided by the square root of the number of household members is calculated as equivalent income and regarded as the income of each household member.



$$\text{Gini coefficient} = \frac{\text{(semi-circular area between A and C)}}{\text{(Triangular area surrounded by A, B and C)}}$$

○ Rationale and Interpretation:

The Gini coefficient is an indicator showing the equality of distribution of income, and is useful for monitoring domestic inequality levels and trends.

Data Sources and Collection Method

Comprehensive Survey of Living Conditions and National Survey of Family Income, Consumption and Wealth (National Survey of Family Income and Expenditure)

Method of Computation and Other Methodological Considerations

○ Computation Method

Gini coefficient before redistribution (equivalent initial income) and after redistribution (equivalent disposable income) derived from the Comprehensive Survey of Living Conditions

Gini coefficient after redistribution (equivalent disposable income) derived from the National Survey of Family Income, Consumption and Wealth (National Survey of Family Income and Expenditure).

○ Comments and limitations

- “New standard” of the Comprehensive Survey of Living Conditions is OECD’s new standard for defining income. It refers to the conventional disposable income minus “Automobile tax, Light motor vehicle tax, and Motor vehicle tonnage tax”, “corporate pension premium” and “allowance”.

- The Gini coefficient in the Comprehensive Survey of Living Conditions is provided as reference value.

Data Disaggregation

By age (18 to 64 years of age, 65 years and older)

References

- OECD Income Distribution Database (IDD)

*Select Japan from “by Country” in the URL below.

<http://www.oecd.org/social/income-distribution-database.htm>

- National Survey of Family Income, Consumption and Wealth
(National Survey of Family Income and Expenditure)

<https://www.stat.go.jp/data/zenkokukakei/2019/index.htm>

<https://www.stat.go.jp/data/zensho/2014/index.html>

Custodian Ministries of Data

Ministry of Internal Affairs and Communications

Ministry of Health, Labour and Welfare

Custodian Ministries of Related Policies

Cabinet Office

Ministry of Health, Labour and Welfare

International Organizations

World Bank Group