SDG indicator metadata

(Harmonized metadata template - format version 1.1)

0. Indicator information (SDG_INDICATOR_INFO)

0.a. Goal (SDG_GOAL)

Goal 10: Reduce inequality within and among countries

0.b. Target (SDG_TARGET)

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

0.c. Indicator (SDG_INDICATOR)

10.4.2 Redistributive impact of fiscal policy on the Gini index

0.d. Series (SDG_SERIES_DESCR)

SI_DST_FISP - Redistributive impact of fiscal policy, Gini index (%) [10.4.2]

0.e. Metadata update (META_LAST_UPDATE)

2025-03-28

0.f. Related indicators (SDG_RELATED_INDICATORS)

The Impact of Fiscal Policy on Poverty (see Lustig, 2022, chapter 6).

0.g. International organisations(s) responsible for global monitoring (SDG_CUSTODIAN_AGENCIES)

Institutional information: The World Bank is the official custodian for this indicator. This metadata documentation was developed and agreed upon by the three institutional data providers, Commitment to Equity (CEQ) Institute, OECD and The World Bank (WB).

1. Data reporter (CONTACT)

1.a. Organisation (CONTACT_ORGANISATION)

The World Bank

2. Definition, concepts, and classifications (IND_DEF_CON_CLASS)

2.a. Definition and concepts (STAT_CONC_DEF)

Definitions:

The Redistributive Impact of Fiscal Policy indicator is defined as the Gini Index of pre-fiscal per capita (or equivalized) income less the Gini Index of post-fiscal per capita (or equivalized) income. These terms are elaborated below and can be calculated with some different variations. The positive sign means that inequality after taxes and transfers is lower than market income inequality; the larger the number, the higher the redistributive effect.

Concepts:

-Gini Index: a commonly used measure of inequality capturing the statistical dispersion in the distribution of income over a population (Gini, 1936). A Gini Index of zero expresses perfect equality: that is, every

individual in the population has the same income. A Gini Index of 100 expresses maximum inequality: that is, all income accrues to a single individual, and all other individuals have zero income.[1]

Household income: this can be calculated: (i) in per capita terms (household income divided by the number of household members); or (ii) in equivalized terms (household income divided by the square root of the number of household members).[2] If a different definition is used, it should be noted in the reporting document. In particular, it should be specified if the indicator is consumption rather than income.

-Pre-fiscal income: the cumulative income accruing to an individual (or a household) from market and private sources only. The Redistributive Impact of Fiscal Policy indicator can be estimated with reference to two different pre-fiscal income concepts depending on assumptions regarding the treatment of public, contributory old-age pensions (please also see the figure below and Lustig (2022) chapter 1, Section 2.2, pp. 23-33):

I) Pre-fiscal income 1 - under the "pensions as deferred income" scenario: When incomes from public contributory old-age pension-system are counted as deferred market income and old-age pension-system contributions are counted as savings from current income (that is, the old-age pension system is treated as the equivalent of a mandatory savings program), pre-fiscal income is defined as an individual's earned and unearned incomes from market and other private sources: wages, interest and dividend income; imputed income from owner-occupied housing and from consumption of own production;[3] remittances; private transfers; old-age pension income from the public contributory pension system; and, *less* any contributions to the public old-age contributory pension system. In sum, in this case pre-fiscal income is defined as follows: market income **plus** private transfers, contributory old-age pensions, imputed rent for owner's occupied housing and consumption of own production, and employers' contributions to all social insurance benefits, **less** employees' and employers' contributions to social insurance for old-age pensions.[4] In this case, the pre-fiscal income concept is called *Market income plus pensions.*

II) Pre-fiscal income 2 - under the "pensions as government transfer" scenario: When incomes from current pension system are counted as a government transfer and old age pension system contributions are counted as a tax on current income, pre-fiscal income is defined as: wages, interest and dividend income; imputed income from owner-occupied housing and from consumption of own production; remittances; and private transfers only. In sum, in this case pre-fiscal income is defined as follows: market income plus private transfers, imputed rent for owner's

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[1] The Gini Coefficient is the same indicator but measured between 0 and 1 as a proportion rather than a percentage.

[2] Other equivalence scales exist but this is the one used by OECD countries in generating this SDG indicator.

[3] Some of the income items mentioned may not be part of the income definition used by various NSOs and IGOS, with imputed rents or consumption of own production being a case in point.

[4] Contributory old-age pensions are considered deferred income (or consumption) obtained from the contributions during working years, a form of forced savings. Other contributory benefits such as unemployment benefits, disability benefits, etc., are treated as pure government transfers. Employer's contributions to all social insurance program are added because the assumptions underlying typical fiscal incidence analysis is that the workers bear the burden of the employer's contributions in full in the form of lower wages (lower market income) and, thus, they need to be added to obtain the correct pre-fiscal income and subsequently subtracted to obtain disposable income. For details see Lustig (2022), Chapter 1 and 6.

occupied housing, consumption of own production, and employers' contributions to all social insurance benefits.[5] In this case, the pre-fiscal income concept is called *Market income.*

When pensions are treated as pure government transfers, the redistributive effect of pensions may be exaggerated as retirees with zero or near zero pre-fiscal incomes will receive pension income that is – at least in part – income deferred when the individual was working. It is important to note that deferral of own income from one's working years to one's retired self is possible regardless of whether the pension system is actuarially fair and in both defined-contribution and defined-benefit pension plans. Treating the public contributory pension system income as pure deferred income, however, does not allow us to capture any portion of the redistributive effect of pensions which may in effect exist. Therefore, we view the pensions as government transfer and pensions as deferred income scenarios as imperfect upper and lower bound estimates (respectively) of the true redistributive effect of contributory pensions. Rather than generating estimates of the redistributive effect of fiscal policy under specific assumptions about public contributory pension system income, the OECD instead reports estimates of the redistributive effect for the population under 65 years of age (while treating contributions to the public contributory pension system as a tax). This is most comparable to the "pensions as deferred income" scenario, although not exactly the same.

-Post-fiscal income: The Redistributive Impact of Fiscal Policy indicator can be estimated with reference to two different post-fiscal income concepts, Disposable Income and Consumable Income. The most comprehensive concept is that of Consumable Income, which incorporates not only the impact of direct taxes and transfers but also of indirect taxes and price subsidies.

Disposable and Consumable Income under the "pensions as deferred income" are equal in value to Disposable and Consumable Income under "pensions as government transfer" scenarios. However, they are derived from pre-fiscal income I and pre-fiscal income II differently; please see the figure below, from Lustig (2022):

1) Post-fiscal incomes under the "pensions as deferred income" scenario:

   Post-fiscal Income A - Disposable Income: pre-fiscal income as defined under I) above **less** direct taxes paid and social insurance contributions made to the public fiscal authority for all contributory benefits excluding old-age pensions **plus** direct cash transfers, benefits from contributory systems *excluding* old-age pensions, and the monetary value of benefits (measured at what governments spend) received by households in the form of near-cash transfers (e.g., food stamps, school breakfasts, school uniforms).

   Post-fiscal Income B - Consumable Income: disposable income as defined immediately above less indirect taxes plus indirect price subsidies.

2) Post-fiscal incomes under the "pensions as government transfer" scenario:

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[5] Employer's contributions to all social insurance program are added because the assumptions underlying typical fiscal incidence analysis is that the workers bear the burden of the employer's contributions in full in the form of lower wages (lower market income) and, thus, they need to be added to obtain the correct pre-fiscal income and subsequently subtracted to obtain disposable income. For details see Lustig (2022), Chapter 1 and 6.

Post-fiscal Income A - Disposable Income: pre-fiscal income as defined under II) above **less** direct taxes paid and social insurance contributions made to the public fiscal authority **plus** all benefits from contributory systems (e.g., old-age pensions, unemployment benefits, etc.), direct cash transfers and the monetary value of benefits (measured at what governments spend) received by households in the form of near-cash transfers (e.g., food stamps, school breakfasts, school uniforms).

Post-fiscal Income B - Consumable Income: disposable income as defined immediately above less indirect taxes plus indirect price subsidies.

CEQ Income Concepts
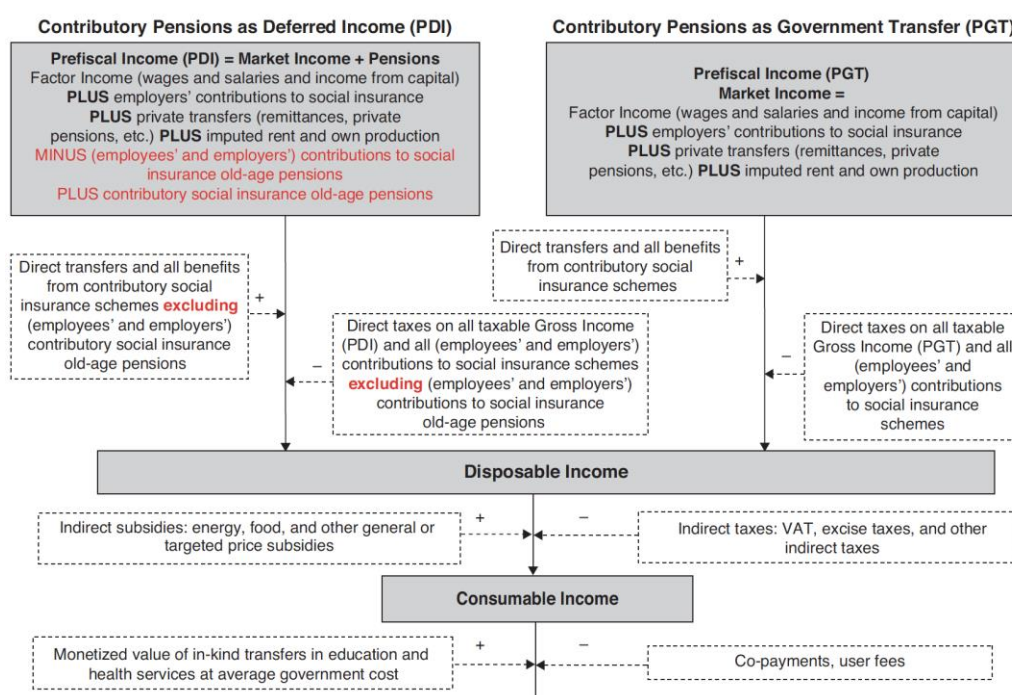
Source: Lustig (2022), Figure 6-1, p. 242.

Note: The concept of "final income" has been deleted from the original version of the figure because it is not referred to in this document. Table 6-5 describes how to compute prefiscal incomes in both scenarios in detail (Lustig, 2022, pp. 45-46).

2.b. Unit of measure (UNIT_MEASURE)

- Gini Index points: The Redistributive Impact of Fiscal Policy indicator is the difference between pre-fiscal Gini Index and the post-fiscal Gini Index. Thus, if a simple difference is applied the measure is the change in Gini Index points. Two indicators are reported: (i) the change in the Gini index, measured as the difference between the Gini of postfiscal disposable and that of prefiscal income; and (ii) the change in the Gini index, measured as the difference between the Gini of postfiscal consumable and that of prefiscal income.

2.c. Classifications (CLASS_SYSTEM)

Not applicable

3. Data source type and data collection method (SRC_TYPE_COLL_METHOD)

3.a. Data sources (SOURCE_TYPE)

The Redistributive Impact of Fiscal Policy indicator is *constructed* from a range of data sources using a standardized methodology as outlined in Lustig, 2022. Its construction requires a nationally representative micro-data set (a Household Budget Survey, for example, or an Income and Expenditure Survey) and fiscal or budgetary or administrative data on revenue collections, social expenditures, and expenditures on consumption subsidies. Country-specific data sources are provided in the corresponding footnotes. For OECD countries, the indicators follow the methodology in *OECD (2013), Framework for Statistics on the Distribution of Household Income, Consumption and Wealth.*

3.b. Data collection method (COLL_METHOD)

Nationally representative micro-data sets are often collected and hosted by the national statistics agency. However, access to such data sets is frequently given to a different part of the administration (the Ministry of Finance, for example, or the Ministry of Development and Planning). Fiscal or budgetary or administrative data is occasionally available in unabridged summaries with enough detail at the program or policy level for the estimation of the indicator. More often, however, budgetary and administrative data is kept by the agency executing the program (so, for example, the Ministry of Education will keep data on its own fiscal-year expenditures). These datasets are then used to construct the Redistributive Impact of Fiscal Policy indicator.

3.c. Data collection calendar (FREQ_COLL)

Source data collection follows the update cycle for country-specific micro-data sets as well as the audit cycle for fiscal year revenues and expenditures. The final constructed SDG indicator relies upon the calendar of the source data collection as well as availability of analytical capacity by the data compilers (see below).

3.d. Data release calendar (REL_CAL_POLICY)

A biannual update to the SDG database will be made by the custodians, but it is expected that most countries will have updated indicators only every five years or so, given the underlying source data collection calendars. The WBG would be the custodian of any international agreement committing individual countries to an update schedule. Existing CEQ Assessments are listed here: commitmentoequity.org/publications-ceqworkingpapers/

3.e. Data providers (DATA_SOURCE)

Ultimately the data providers are national-level statistical agencies for the micro-data sets and national-level fiscal agencies and bodies for budgetary and administrative data.

For non-OECD countries, the prefiscal and postfiscal Gini coefficients are produced by the WBG and/or the Commitment to Equity Institute. Where a country produces its own 10.4.2 indicator, it will take

precedence, subject to meeting the reporting requirements below. Most OECD countries also calculate their own pre- and post-fiscal Gini indices. That is, they directly calculate the 10.4.2 indicator. These are collated by the OECD and sent to the World Bank as custodian. Data for Malta are produced by EUROMOD based on calculations performed by the Joint Research Centre, European Commission.

3.f. Data compilers (COMPILING_ORG)

There will be three main data compilers: the World Bank, the Commitment to Equity (CEQ) Institute and the OECD. Data compilers will be responsible for compiling the necessary information and documentation in ways that are compliant with the posting requirements described as follows:

- The WBG will compile information all CEQ Assessments conducted by WBG teams and by (non-OECD) national participants working independently. The focus of this exercise will be on assessments conducted in or after 2015.
- The CEQ Institute will compile information on all assessments conducted by the Institute. The Institute's submissions to the WB will include information on pre-fiscal and post-fiscal Gini Indices, information needed to complete the necessary metadata (when available) and do-files needed for replication (when available).
- The OECD will compile information on all fiscal assessments conducted by OECD national participants. The OECD's submissions to the WBG will include information on pre-fiscal and post-fiscal Gini Indices.

The three data compilers will meet periodically to review the reporting and submission process, exchange information on (new) methodological changes, and coordinate on further methodological innovations regarding the estimation of the prefiscal and postfiscal Gini coefficients as needed.

3.g. Institutional mandate (INST_MANDATE)

The WBG has the mandate to measure and disseminate international poverty numbers and **inequality.**
The World Bank is the formal custodian for the SDG 10.4.2 fiscal redistribution.

4. Other methodological considerations (OTHER_METHOD)
4.a. Rationale (RATIONALE)

Developed by the Commitment to Equity Institute (CEQ) Institute at Tulane University, the Redistributive Impact of Fiscal Policy indicator demonstrates in an accounting framework the total amount by which current income inequality is reduced or increased by the current execution of fiscal policy (including direct and indirect taxes; social insurance and old-age pension contributions; direct cash or near-cash transfers; and subsidies). For example, if the Redistributive Impact of Fiscal Policy is positive, that indicates that the net effect of Fiscal Policy is to reduce the Gini index from what it otherwise would be without Fiscal Policy (in an accounting sense, not as an economic counterfactual). The indicator allows policy makers and the broader stakeholder and advocacy communities to systematically track progress at the country level in the contribution of fiscal policy to more equitable societies.

4.b. Comment and limitations (REC_USE_LIM)

Reporting on assumptions: The choice of whether to report the Redistributive Impact of Fiscal Policy indicator under the pensions as deferred income or pensions as transfers scenario will be left to the country authority or international agency in charge of submitting this indicator, *but the choice must be clearly indicated in the reporting document.* For countries for which the data exist, pre-fiscal and post-fiscal inequality should be calculated for both pension scenarios, and the default included in the SDGs database is pension as deferred income. If only data treating pensions as transfers are available, it is recommended to report them only for the working age population (under 65 years of age). Some authorities may also choose to use equivalized income instead of per capita income as the welfare indicator. This too should be clearly indicated in the reporting document. Last, some authorities may report these data based on a micro-data set using expenditure (or consumption) as the relevant welfare concept. In addition, where possible, specify if welfare concept includes imputed rent for owner's occupied housing, consumption of own production, and, in the case of consumption-based surveys, expenditures on durables. Once these decisions are taken, they should be maintained in subsequent years in order to ensure comparability, except that all countries are encouraged to provide data with pension as deferred income. The data reported in the UN Global Database try, to the extent possible, to distinguish between the different concepts used for different countries.

Feasibility: The Redistributive Impact of Fiscal Policy indicator can be estimated for any country with a micro-data set detailing incomes or expenditures (or both) at the household or individual level and with a set of fiscal, administrative, or budgetary records detailing public expenditures at the program level and revenue collections at the revenue-collection instrument level.

Suitability/Relevance: The Redistributive Impact of Fiscal Policy indicator provides a direct estimate of the current impact of fiscal policy on redistribution (of incomes). It therefore provides a direct estimate of progress on SDG Target 10.4: "**Adopt policies, especially fiscal**, **wage and social protection policies**, **and progressively achieve greater equality**."

Limitations: The Redistributive Impact of Fiscal Policy indicator does not address wage policy. It does not include the benefits of public provision of in-kind benefits, such as health, education, sanitation and housing services, which may have both present-day and longer-term impacts on present-day and future inequality. And, if the post-fiscal income is "disposable income," the indicator does not capture the impact of indirect taxes and indirect price subsidies on inequality. The indicator does not take into account behavioral responses and general equilibrium effects.

4.c. Method of computation (DATA_COMP)

Pre-fiscal income can be derived from a nationally representative micro-data set (an Income and Expenditure Survey, for example). Post-fiscal income is estimated via the allocation of the tax burdens and the expenditure-based benefits that stem from fiscal policy (direct and indirect taxes, social contributions, direct cash and near-cash transfers, subsidies, *et cetera*). Procedures for constructing pre-fiscal and post-fiscal income concepts and estimating their distribution from an underlying microdata set are detailed comprehensively in Lustig (2022) (Chapters 1, 6, and 7).

The Gini Index is calculated rescaling the Gini Coefficient by a factor of 100. The Gini Coefficient is calculated according to standard formulas for a (generalized) Gini Coefficient. See, for example, Duclos and Araar (2006):

$$\text{GINI Index} = 100 \times \text{GINI}(X; \upsilon)$$

$$\text{GINI}(X; \upsilon) = -\upsilon \, \text{Cov}\left(\frac{X}{\mu(X)}, \ (1 - F(X))^{\upsilon-1}\right)$$

where X is a random variable of interest with mean μ(X), F(X) is its cumulative distribution function, υ is a parameter tuning the degree of 'aversion to inequality'. The standard Gini corresponds to υ = 2. Cov is a Covariance estimate.

4.d. Validation (DATA_VALIDATION)

The validation process would require consultation with line ministries and agencies responsible for executing programmatic expenditures or revenue collections.

4.e. Adjustments (ADJUSTMENT)

Not applicable

4.f. Treatment of missing values (i) at country level and (ii) at regional level (IMPUTATION)

- **At country level**

When a nationally representative micro-data set or country-level fiscal, budgetary, and administrative data are not available, the indicator cannot be generated. An exception is Argentina where the household survey is representative only of the urban population. Budget and administrative data exists for every fiscal system but is not always public.

- **At regional and global levels**

Currently no regional or global aggregates exist for this indicator.

4.g. Regional aggregations (REG_AGG)

Currently no regional or global aggregates exist for this indicator.

4.h. Methods and guidance available to countries for the compilation of the data at the national level (DOC_METHOD)

A complete description of the methodology, recommendations, and guidelines behind the generation of the Redistributive Impact of Fiscal Policy indicator can be found in Chapters 1, 6, 7, 8 and Part IV in Lustig (2022).

This indicator can be calculated based on the current state of household surveys micro-data and budget administrative data.

4.i. Quality management (QUALITY_MGMNT)

The World Bank as custodian will coordinate with data compilers on the quality of their respective country indicators. The Poverty Global Department at the WBG verifies the SDG 10.4.2 indicators produced by WBG.

4.j Quality assurance (QUALITY_ASSURE)

In its role as custodian agency of the proposed indicator for SDG 10.4.2, the World Bank is responsible for quality control of and quality assurance over all data submitted to the SDG Indicators Database, as well as the underlying analysis and documentation.

In practice and taking advantage of the proposed partnership between the WBG and the [Commitment to Equity Institute (CEQ) Institute](#) at Tulane University regarding the monitoring of the proposed indicator, the Institute will be responsible for quality control of and quality assurance over the Redistributive Impact of Fiscal Policy indicators submitted by the Institute. Similarly, the OECD will be responsible for quality control of and quality assurance over the Redistributive Impact of Fiscal Policy indicators submitted by OECD member nations.

For any data reporting outside of the CEQ Institute and OECD, the World Bank will review accompanying technical documentation to confirm that the methodology employed is consistent with that described in Lustig (2022). Where questions arise, the World Bank will engage with the reporting institution to verify the analysis.

4.k Quality assessment (QUALITY_ASSMNT)

Reporting requirements:

The World Bank requests the following information from Commitment to Equity (CEQ) Assessments for submission to the SDG Indicator Database:

- Information on both pre-fiscal and post-fiscal Gini
- Metadata
- Technical report on methodology
- Master Workbook or equivalent

While reporting requirements specify that the post-fiscal Gini should be reported for either Consumable or Disposable Income, countries and international agencies are encouraged to report both whenever possible. When this is not feasible in the short term, they should work towards reporting both indicators over time. Unlike most data from the CEQ Institute and the World Bank, OECD submissions do not report consumable income, and therefore do not account for indirect taxes and price subsidies. For any country-year with both OECD and CEQ estimates, the OECD data take precedence. CEQ results for all available countries are accessible at https://commitmentoequity.org/datacenter/.

WBG submissions to the SDG Indicator Database indicate whether information has been prepared by the WBG, the CEQ Institute, or another agency (e.g. OECD for OECD countries).

Required metadata should specify:

- Welfare aggregate: consumption or income
- Welfare aggregate: per capita or equivalized
- Income/consumption includes imputed rent for owner's occupied housing: YES/NO

- Income/consumption includes consumption of own production: YES/NO
- Consumption includes expenditures on durable goods: YES/NO
- Treatment of pensions: pensions as deferred incomes or government transfers
- Population coverage: all or working age
- Indirect effects of indirect taxes and subsidies included: YES/NO
- Level of government: general or consolidated; federal or federal plus subnational
- Alternative prefiscal income Gini using (PDI/PGT, whichever is not one of the main indicators), where available
- Date of household survey
- Date of submission
- Link to official report and technical documentation
- Reporting institution and contact person

5. Data availability and disaggregation (COVERAGE)

As of March 2025, the Redistributive Impact of Fiscal Policy indicator covers 105 countries. Of these, 67 countries have data from the Commitment to Equity Institute (CEQ) or the World Bank (WB) for at least one year. All included data points are from 2013 onward, except for the Dominican Republic, where the only available estimate is from 2007. The Joint Research Centre of the European Commission separately submits data for Malta.

Data on Pre-fiscal and Disposable Income is available for 37 of the 38 OECD member countries. OECD data is available annually through the OECD Income Distribution Database, with the exception of countries where income surveys are conducted every two or three years. For countries with both CEQ and OECD estimates, only OECD data is reported. The regional distribution of country coverage is as follows:

- East Asia and the Pacific: 14
- Europe and Central Asia: 42
- Latin America and the Caribbean: 18
- Middle East and North Africa: 8
- North America: 2
- South Asia: 2
- Sub-Saharan Africa: 19

Time series:

The Redistributive Impact of Fiscal Policy indicator is currently *for the most part* available for single country/year pairs only. The main limitation to producing more frequent time series is the availability of more frequent household surveys. However, that is also a limitation faced by other SDG indicators.

Disaggregation:

The Redistributive Impact of Fiscal Policy indicator can be shown separately for as many different subgroups as are represented in the survey or micro-data from which it is drawn: income subgroups; by gender, age group, ethnic grouping; geographic location; disability status, household size; household dependency ratios, and so on. These are frequently reported in the main CEQ studies which the SDG indicators are drawn from but not reported within the SG database itself.

6. Comparability / deviation from international standards (COMPARABILITY)

Sources of discrepancies:

Not applicable

7. References and Documentation (OTHER_DOC)

Duclos, Jean Yves, and Abdelkrim Araar. 2006. [Poverty and Equity: Measurement, Policy, and Estimation with DAD](). Springer US.

Gini, Corrado. (1936). "On the Measure of Concentration with Special Reference to Income and Statistics", Colorado College Publication, General Series No. 208, 73–79.

Lustig, Nora (ed). 2022. [CEQ Handbook: Estimating the Impact of Fiscal Policy on Inequality and Poverty](), Second Edition, CEQ Institute at Tulane University and Brookings Institution Press. www.commitmentoequity.org/publications-ceq-handbook (open source; available online free of charge).