

SDG Target 10.4, Indicator 10.4.2, and the Fiscal Incidence Analysis Toolkit

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Sustainable Development Goal Webinar Series for the Arab Region -
SDGs 9.1.1, **10.4.2**, 16.5.2, & SDG 16.6.1

June 17, **July 15**, 2021

SDG 10

Goals

10

Reduce inequality within and among countries

SDG Target 10.4

TARGET

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



Target

10.4

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

**Current
Indicator**

10.4.1

Labour share of GDP, comprising wages and social protection transfers

**Labour share of GDP = total compensation to employees
(as a share of GDP)**

Goal 10. Reduce inequality within and among countries

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

- **Indicator 10.4.1:** Labour share of GDP

See Metadata :  

Concepts:



Compensation of employees is the total in-cash or in-kind remuneration payable to the employee by the enterprise for the work performed by the employee during the accounting period. Compensation of employees includes: (i) wages and salaries (in cash or in kind) and (ii) social insurance contributions payable by employers. This concept views compensation of employees as a cost to employer, thus compensation equals zero for unpaid work undertaken voluntarily. Moreover, it does not include taxes payable by employers on the wage and salary bill, such as payroll tax.

Indicator 10.4.1 will include employers' social contributions *when relevant*.

Goal 10. Reduce inequality within and among countries

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

- **Indicator 10.4.1:** Labour share of GDP

See Metadata :  

- **Indicator 10.4.1 may or may not contain information on a small subset of social policies.**
- **Indicator 10.4.1 will not show disaggregated employer social insurance contributions**
- **Indicator 10.4.1 *excludes* taxes paid on the wage bill**
- **Indicator 10.4.1 *excludes* fiscal/social policies with an impact on consumption or unpaid work (e.g. household production)**

SDG 10



SDG Target 10.4

TARGET
10.4 adopt policies especially fiscal, wage, and social protection policies and progressively achieve greater equality

Indicator 10.4.2, “The Redistributive Impact of Fiscal Policy”

- provides a single number
- summarizes how much redistribution fiscal policy achieves
- applicable to *all* citizens regardless of labor status
- Includes revenue policy (“taxes”), social insurances including pensions ...
- ...and expenditure policy (“transfers”): direct transfers (social protection, social assistance) and indirect subsidy expenditures

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

Developed by the [Commitment to Equity Institute](#) (CEQ) 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.



Nora Lustig, editor. 2021. *Commitment to Equity Handbook: Estimating the Impact of Fiscal Policy on Inequality and Poverty*. Second Edition. Brookings Institution Press and CEQ Institute, Tulane University. Available for free and unlimited download at commitmenttoequity.org/publications-ceq-handbook


SDG Indicators

Metadata repository

Goal 10. Reduce inequality within and among countries

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

- **Indicator 10.4.2:** Redistributive impact of fiscal policy

See Metadata :  



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.

Goal 10. Reduce inequality within and among countries

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

- **Indicator 10.4.2:** Redistributive impact of fiscal policy

See Metadata :  

Concepts:

- Gini Index: a commonly used measure of inequality capturing the statistical dispersion in the distribution of income over a population.
 - A Gini Index of zero expresses perfect equality: 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.

Indicator 10.4.2: the Gini Index for Prefiscal Income *minus* the Gini Index for Postfiscal Income

Concepts:

- Prefiscal Income: earned/unearned incomes from market and other *private* sources: wages, interest/dividend income; imputed income from owner-occupied housing and from consumption of own production; remittances; other private transfers;

Prefiscal Incomes, 2 options

CONTRIBUTORY PENSIONS AS DEFERRED INCOME (PDI)

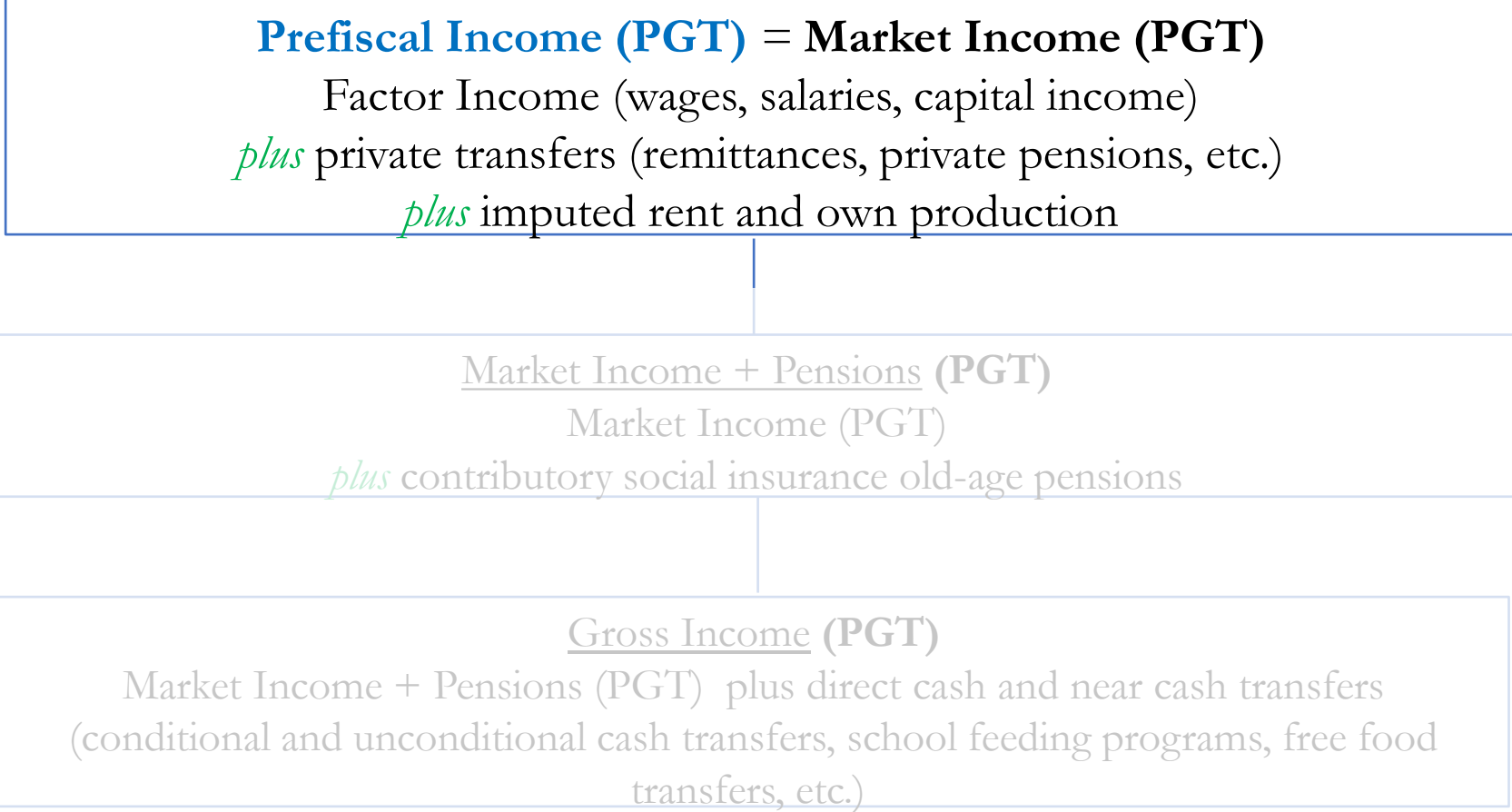
Market Income (PDI)
Factor Income (wages, salaries, capital income)
plus private transfers (remittances, private pensions, etc.)
plus imputed rent and own production
minus contributions to social insurance old-age pensions

Prefiscal Income (PDI) = Market Income + Pensions (PDI)
Market Income (PDI)
plus contributory social insurance old-age pensions

Gross Income (PDI)
Market Income + Pensions (PDI)
plus direct cash and near cash transfers (conditional and unconditional cash transfers, school feeding programs, free food transfers, etc.)

Prefiscal Incomes, 2 options

CONTRIBUTORY PENSIONS AS GOVERNMENT TRANSFER (PGT)



Indicator 10.4.2: why two Prefiscal Income alternatives?

Assumption: the *public, contributory* old-age pension system is a hybrid private income and public transfer:

- The PGT scenario exaggerates the redistributive effect of pensions: some retirees with zero or near zero Prefiscal income (PGT) receiving public pension system income will be receiving private income deferred to their current selves from their working-age selves. Treating these as public transfers instead assigns public benefits to a set of “false poor”, inflating fiscal policy’s redistributive effect.
- The PDI scenario precludes any redistributive effect of pensions: incomes from the public contributory old-age pension-system are counted as deferred market income and contributions are counted as savings (from current income). In PDI, public contributory pensions are “outside” of the fiscal system.

Indicator 10.4.2: why two Prefiscal Income alternatives?

Assumption: the *public, contributory* old-age pension system is a hybrid private income and public transfer:

- Deferring *own* income (from one's working-age self) 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.
- PGT and PDI scenarios are imperfect upper and lower bound estimates (respectively) of the true redistributive effect of the public contributory pension system.
- Note: the OECD reports SDG Indicator 10.4.2 for the under-65 population only and treats pension contributions as a tax. The OECD's reports are most comparable (but not equivalent) to the PDI scenario.

Indicator 10.4.2: the Gini Index for Prefiscal Income *minus* the Gini Index for Postfiscal Income

Concepts:

- Postfiscal Income, option A: Prefiscal income *minus* direct taxes paid and social security contributions *plus* direct cash or near-cash transfers

Postfiscal Income, option A = **Disposable Income**

Indicator 10.4.2: the Gini Index for Prefiscal Income *minus* the Gini Index for Postfiscal Income

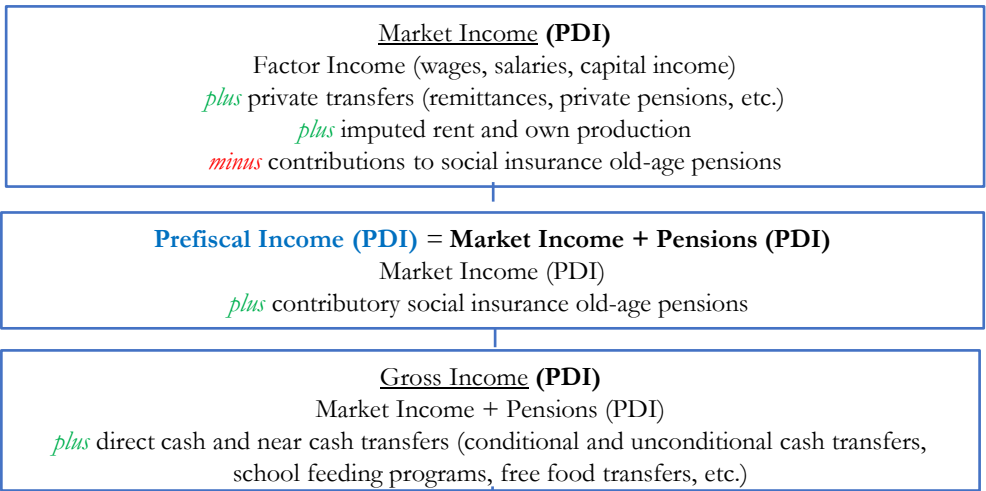
Concepts:

- Postfiscal Income, option B: Prefiscal income *minus* direct taxes **and indirect taxes** paid and social security contributions *plus* direct cash or near-cash transfers and the value of **indirect price subsidies** captured

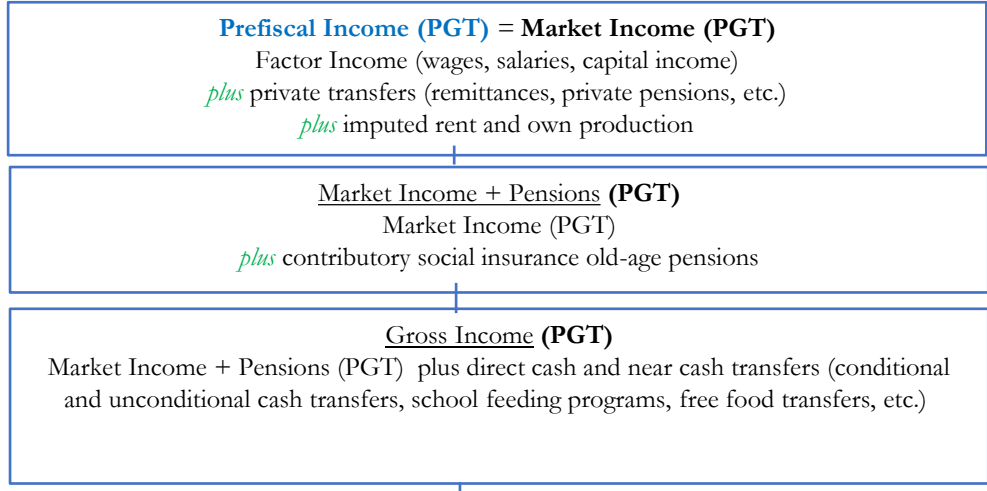
Postfiscal Income, option B = **Consumable Income**

Postfiscal Incomes

CONTRIBUTORY PENSIONS AS DEFERRED INCOME (PDI)



CONTRIBUTORY PENSIONS AS GOVERNMENT TRANSFER (PGT)



Disposable income

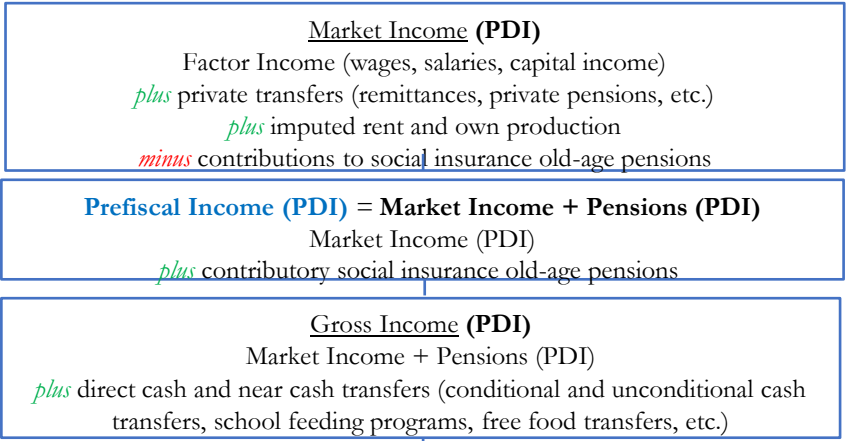
Gross Income (PDI) *minus* all direct taxes and *non-pension* social insurance contributions
OR Gross Income (PGT) *minus* all direct taxes and *pension and non-pension* social insurance contributions

Consumable income

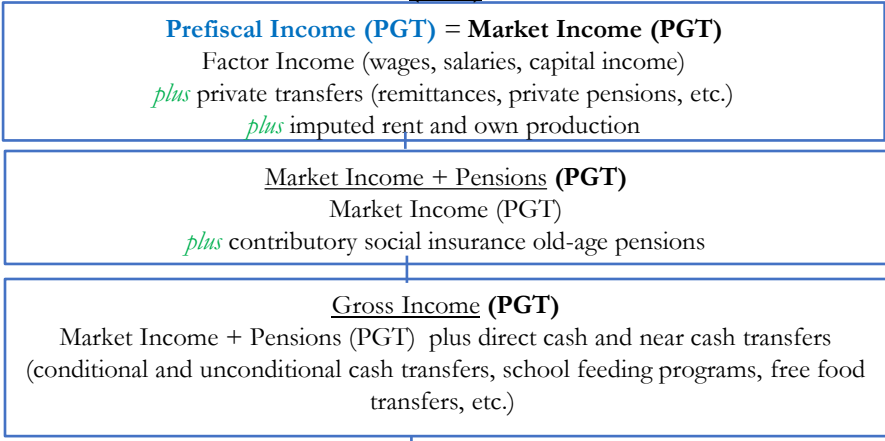
Disposable income *plus* indirect subsidies (energy, food, and other general or targeted price subsidies) *minus* indirect taxes (VAT, excise taxes and other indirect taxes)

Postfiscal Incomes

CONTRIBUTORY PENSIONS AS DEFERRED INCOME (PDI)



CONTRIBUTORY PENSIONS AS GOVERNMENT TRANSFER (PGT)



Disposable income

Gross Income (PDI) *minus* all direct taxes and *non-pension* social insurance contributions
OR Gross Income (PGT) *minus* all direct taxes and *pension and non-pension* social insurance contributions

Consumable income

Disposable income *plus* indirect subsidies (energy, food, and other general or targeted price subsidies) *minus* indirect taxes (VAT, excise taxes and other indirect taxes)



Nora Lustig, editor. 2021. *Commitment to Equity Handbook: Estimating the Impact of Fiscal Policy on Inequality and Poverty*. Second Edition. Brookings Institution Press and CEQ Institute, Tulane University.

In the CEQ Assessment Framework: Postfiscal incomes are derived equivalently regardless of PDI/PGT Prefiscal Income scenario.

What are CEQ Assessments?

Empirically grounded comprehensive and rigorous tax and benefit incidence analyses; which are transparent in method and application; and which facilitate fact-based engagement among development stakeholders on the following equity concerns:

- | How much income redistribution and poverty reduction is being accomplished through fiscal policy?
- | How equalizing and pro-poor are specific taxes and government spending?
- | How effective are taxes and government spending in reducing inequality and poverty?
- | What is the impact of fiscal reforms that change the size and/or progressivity of a particular tax or benefit?

How are they empirically grounded and transparent?

CORE INCOME CONCEPTS

CONTRIBUTORY PENSIONS AS DEFERRED INCOME (PDI)

Market Income (PDI)

Factor Income (wages, salaries, capital income)
plus private transfers (remittances, private pensions, etc.)
plus imputed rent and own production
minus contributions to social insurance old-age pensions

Prefiscal Income (PDI) = Market Income + Pensions (PDI)

Market Income (PDI)
plus contributory social insurance old-age pensions

Net Market Income (PDI)

Market Income + Pensions (PDI)
minus direct taxes on Market Income + Pensions (PDI)
minus all non-pension social insurance contributions

Taxable Income (PDI)

Gross Income (PDI)
minus all non-taxable Gross Income (PDI) components

Gross Income (PDI)

Market Income + Pensions (PDI)
plus direct cash and near cash transfers (conditional and unconditional cash transfers, school feeding programs, free food transfers, etc.)

Disposable income

Gross Income (PDI) *minus* all direct taxes and *non-pension* social insurance contributions
 OR Gross Income (PGT) *minus* all direct taxes and *pension and non-pension* social insurance contributions

Consumable income

Disposable income *plus* indirect subsidies (energy, food, and other general or targeted price subsidies) *minus* indirect taxes (VAT, excise taxes and other indirect taxes)

Final income

Consumable income *plus* monetized values of in-kind transfers in education and health services at average government cost *minus* co-payments, user fees

Data Needs

The Redistributive Impact of Fiscal Policy indicator is *constructed* from a range of data sources using a standardized methodology as outlined in Lustig, 2018. To construct this indicator 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. The data sources employed at the country level are detailed in the country-specific footnotes.

- **Construction requires a fiscal incidence analysis (FIA) to create the Prefiscal and Postfiscal income distributions.**
- **FIA attributes taxes and transfers – fiscal policies – to the individuals and households paying a tax or receiving a transfer benefit.**

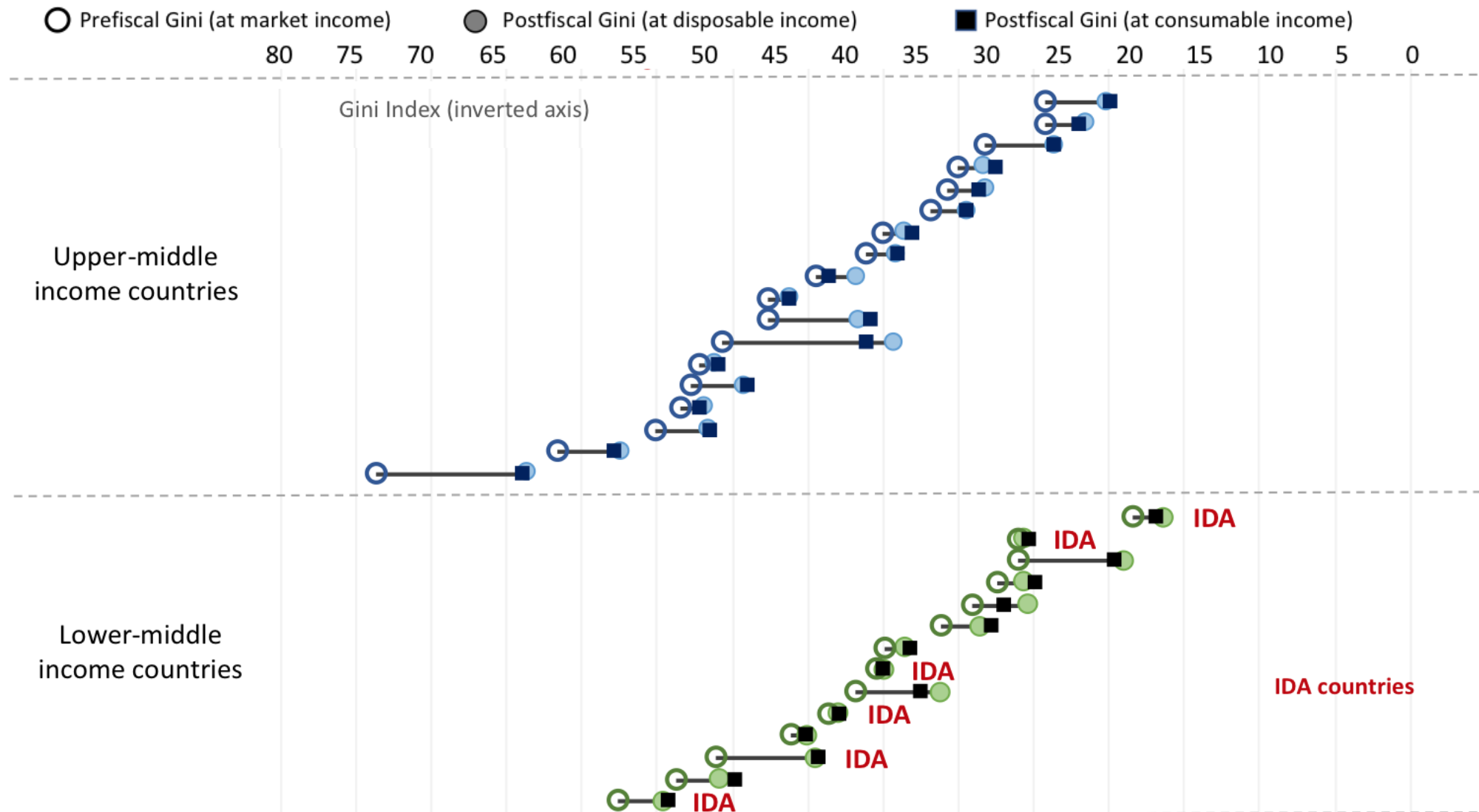
Data Needs

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- **Prefiscal and Postfiscal income distributions are then analyzed, and measures of progressivity are estimated over both income concepts.**
- **The difference in inequality between Prefiscal and Postfiscal incomes is the Redistributive Impact of Fiscal Policy**

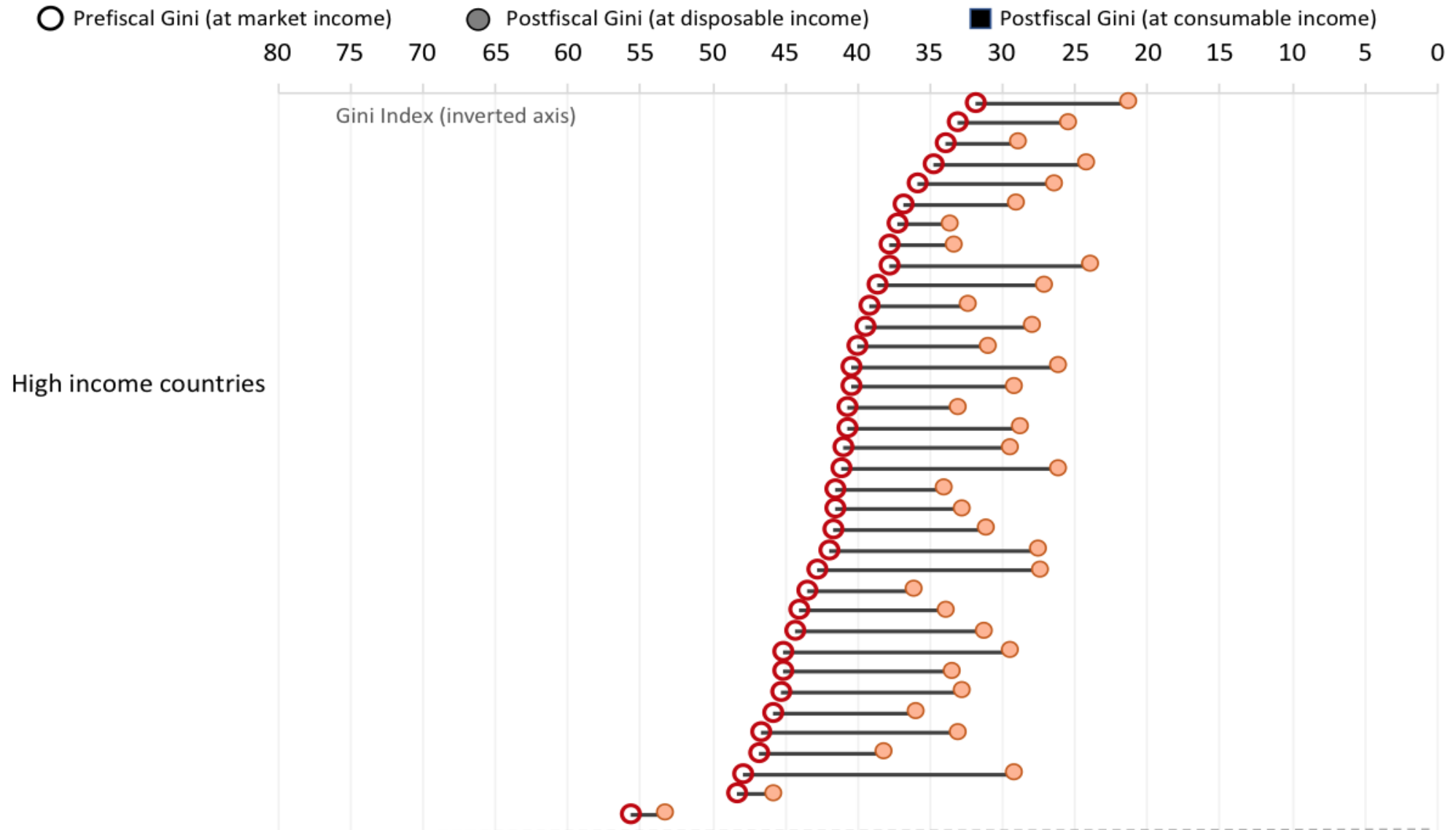
How is Indicator 10.4.2 used?

To help governments achieve equity goals:



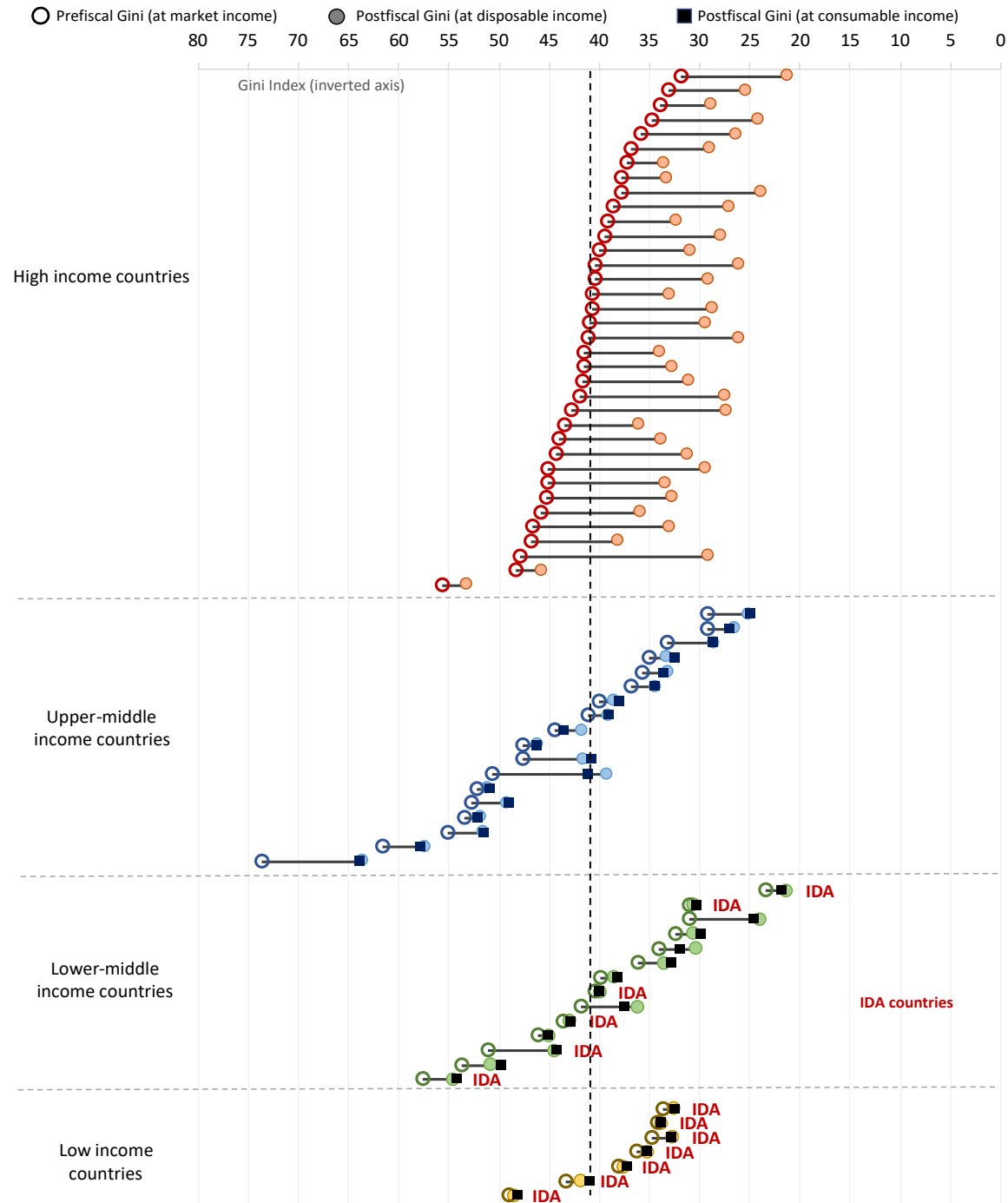
How is Indicator 10.4.2 used?

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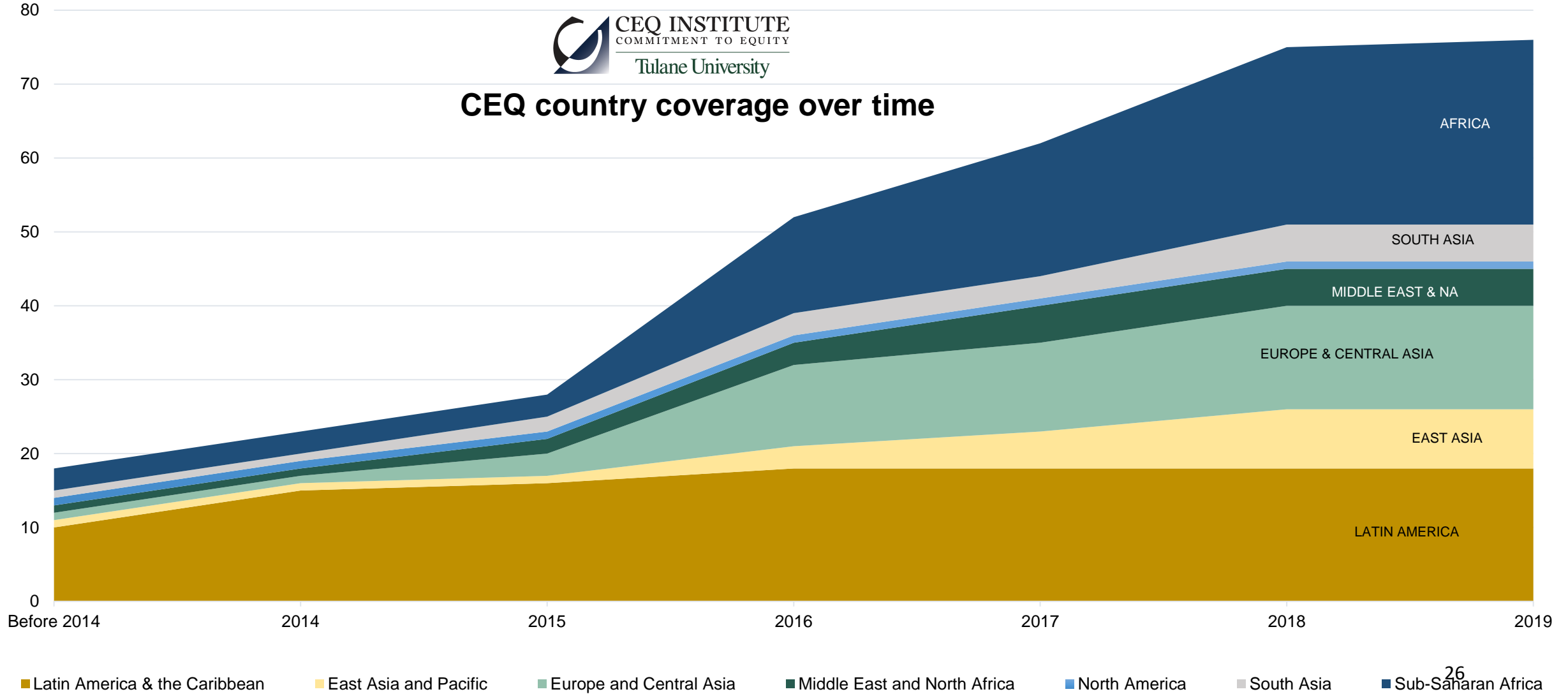
How is Indicator 10.4.2 used?

To help governments achieve equity goals:

:



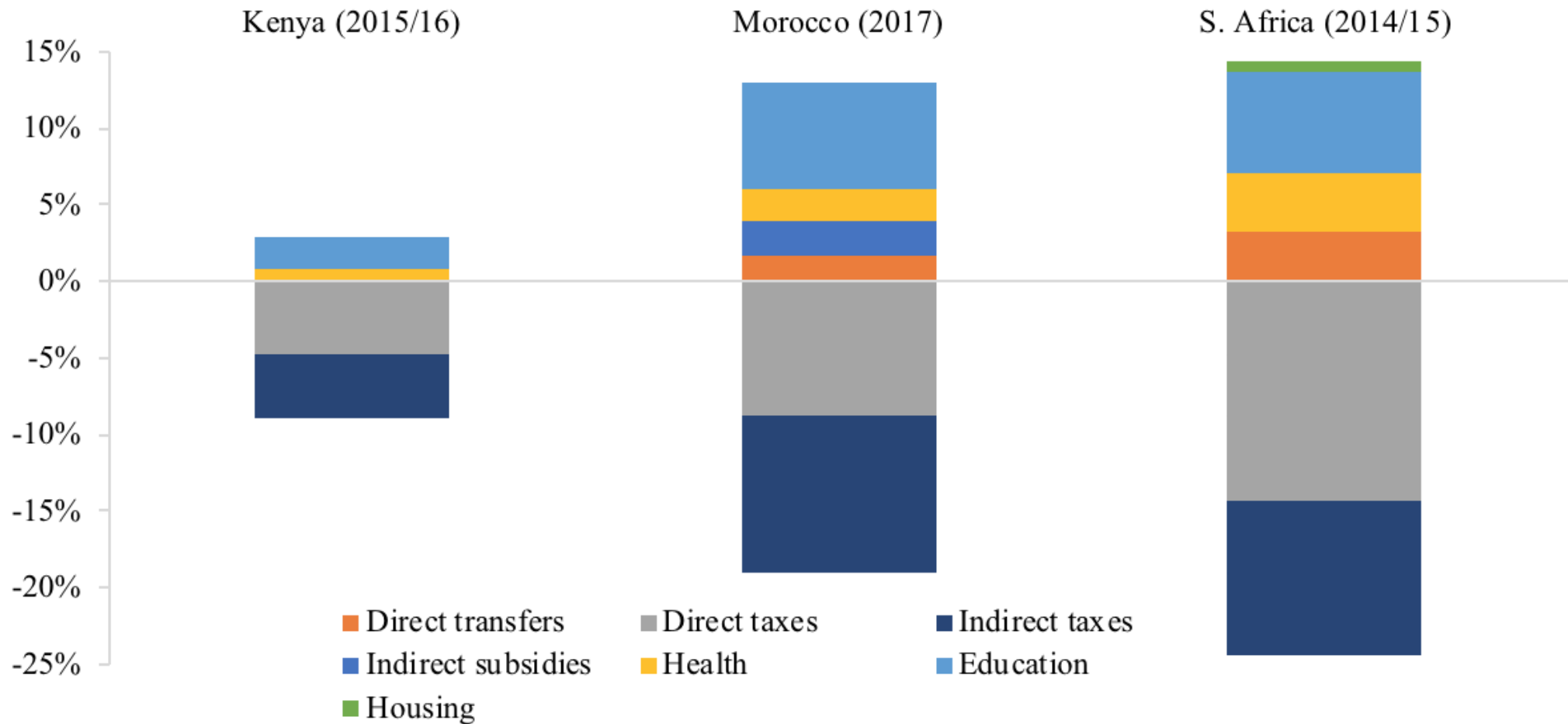
CEQ country coverage over time



How are CEQ Assessments, FIA, and Indicator 10.4.2 used?

To help governments achieve equity goals:

Figure 1: Fiscal Instrument Magnitudes *as a share of GDP*



How are CEQ Assessments, FIA, and Indicator 10.4.2 used?

To help governments achieve equity goals:

Figure 10: Concentration Shares and Incidence of Indirect Subsidies in Morocco

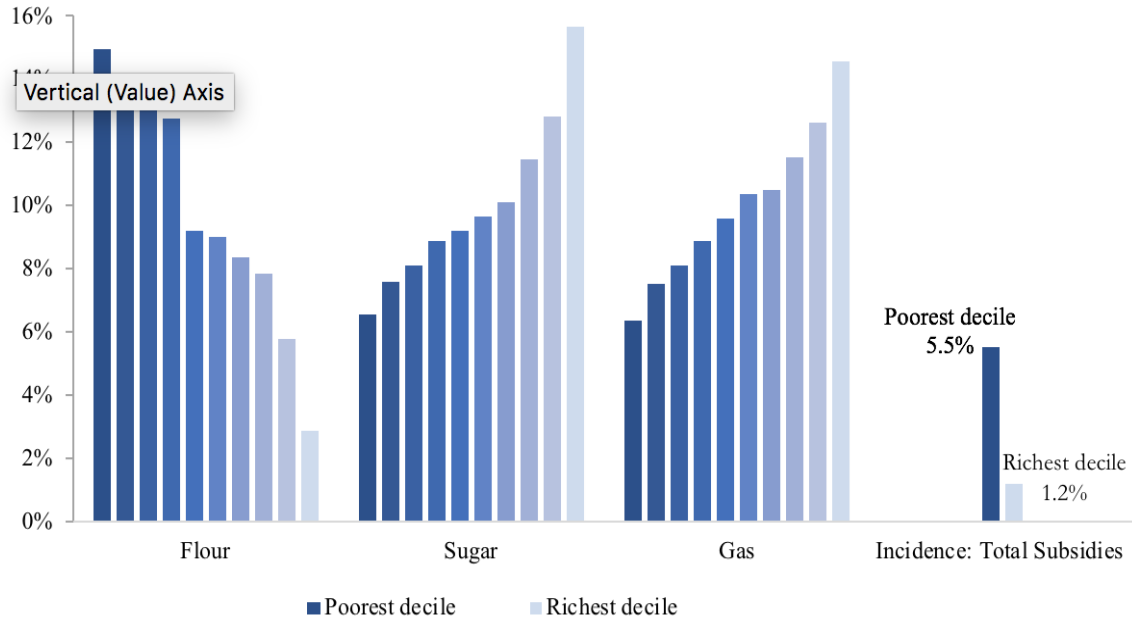
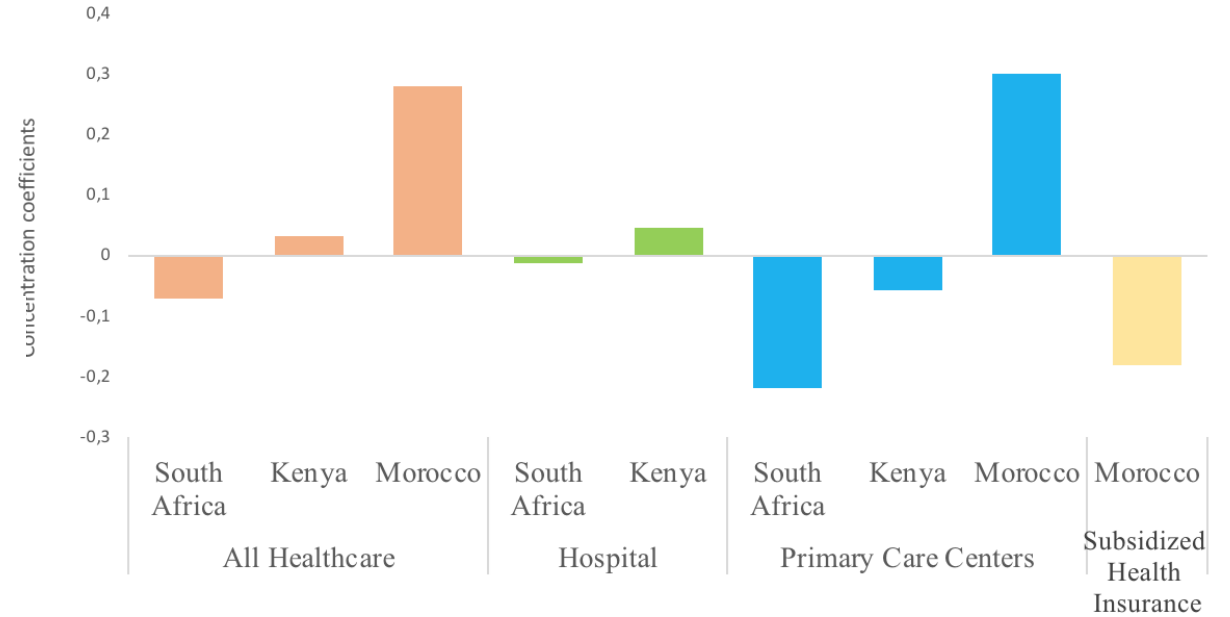


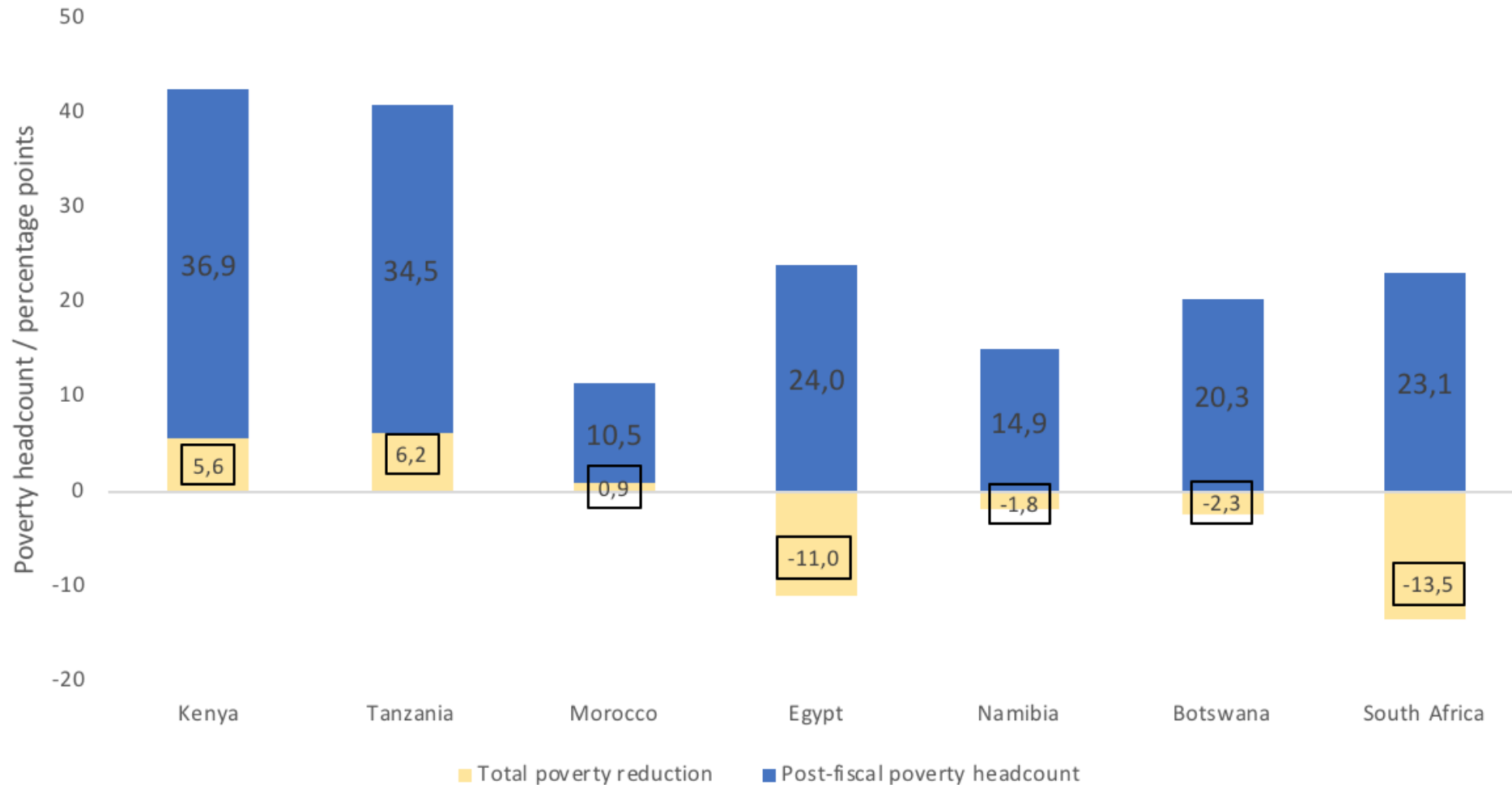
Figure 12: Healthcare Concentration Coefficients by Provider or Expenditure type



Results - How are CEQ Assessments and FIA used?

To help governments achieve equity goals:

Figure 5: Impact of Fiscal Policy on Poverty Reduction



Results - How are CEQ Assessments and FIA used?

For other SDG Targets:

SDG Indicator 1.b.1 – “Pro-poor public spending” (concentration shares among poor populations)

Pro-poor public social spending

[SDG Goal 1](#) – “End poverty in all its forms everywhere” – is perhaps the most ambitious SDG goal and requires cooperation and coordination within and among private, public, and international sectors. [SDG Target 1.b](#) – which calls on governments to “Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions” – is directly addressed within a CEQ Assessment which demonstrates what share of social protection and poverty eradication program expenditures the poor receive as well as the impact those policies and programs are having on poverty. Save the Children and UNICEF successfully worked with the United Nations’ SDG committee to revise and update the definition and methodology of the “Pro-poor public social spending” official SDG Indicator 1.b.1. Below we show the (unofficial) SDG Indicator 1.b.1 for those countries included represented in the Data Center. See all Sustainable Development Goals [here](#).

eSwatini (2017) 1st/42 | 77.93

PDI PGT

Poverty Line

National

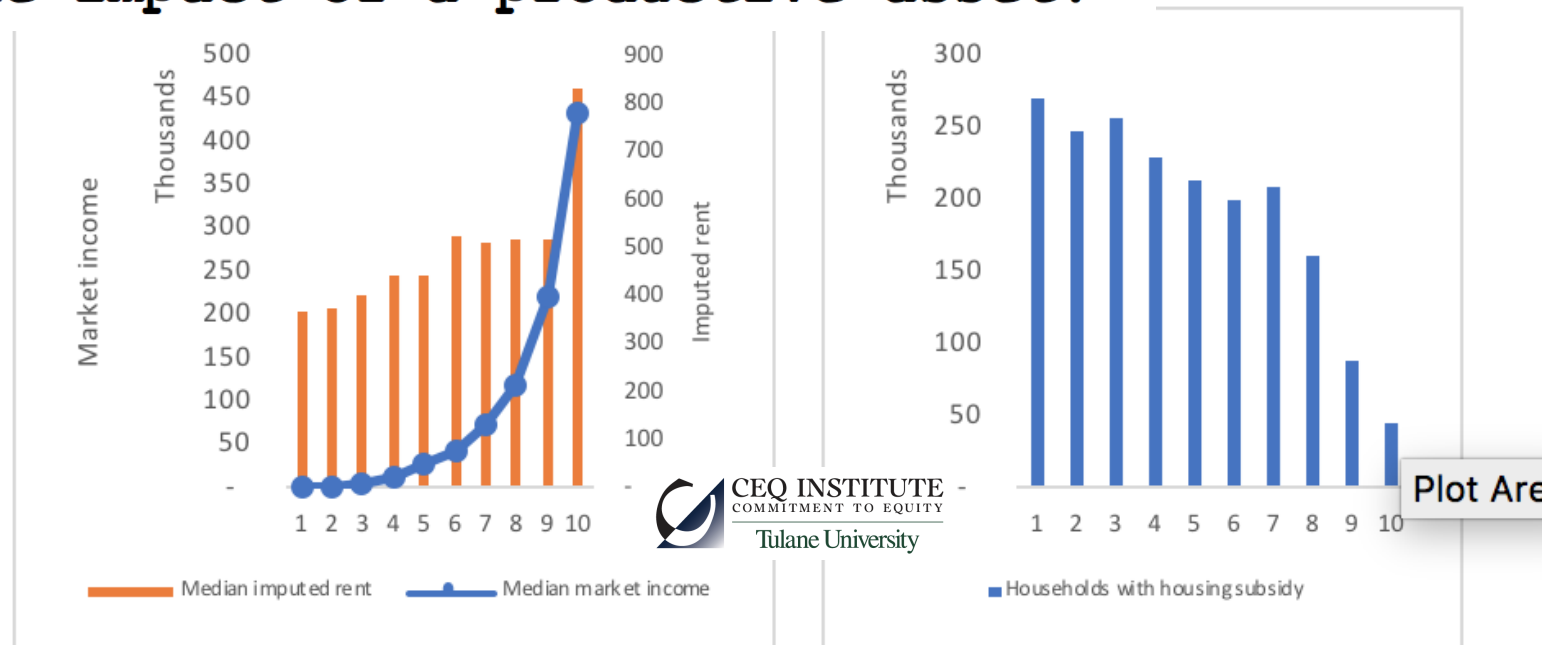


Results - How are CEQ Assessments and FIA used?

As evidence for specific equity issues:

POLICY DIALOGUES

South African housing subsidies: the challenges of measuring the impact of a productive asset.



- ▶ Results of the distributional analysis that show imputed rent increasing with incomes, and households over the threshold reporting ownership of a subsidised house is unlikely to be fully the result of administrative leakages, although that may well be a factor. We find circumstantial evidence, by examining the impact of region and access to amenities on imputed rent and income, that housing does impact income and wealth over time, and so measuring the current income of households that received a subsidised house many years ago is likely to make the programme appear less pro-poor by nature.

Results - How are CEQ Assessments and FIA used?

To examine inequities in planning and budgeting, and budget-based loans/grants:

Sustainable Development Plans/Growth Frameworks create winners *and* losers:

- Will climate change negatively impact women more so than men?
- How will climate change mitigation policies be funded? Will climate change mitigation policies create burdens that are more significant than women?
- Will children's opportunities be affected by climate change?
- Will climate change mitigation policies exacerbate or ameliorate worsening inequality of opportunity from climate change?
- Are there links therefore between SDGs 1, 10, and 4 (Education), 5 (Gender equality), 8 (Decent work), and 13 (Climate Action)?

CEQ Assessments and FIA provide an *impact* lens for interdependent equity concerns.

SDG Indicator 10.4.2 Metadata collection form

REDISTRIBUTIVE IMPACT OF FISCAL POLICY: GINI COEFFICIENT AND CHANGE IN GINI							
Prefiscal Income 1 - PDI scenario (Market income incl. pensions; net of pension contributions) - Inequality	Prefiscal Income 2 - PGT Scenario (Market Income before pension contributions; net of pension income) - Inequality	Postfiscal Income A - Disposable Income - Inequality	Postfiscal Income B - Consumable Income - Inequality	Difference in Inequality between : Prefiscal Income 1 (PDI) MINUS Postfiscal Income A (Disposable Income)	Difference in Inequality between : Prefiscal Income 1 (PDI) MINUS Postfiscal Income B (Consumable Income)	Difference in inequality between Prefiscal Income 2 (PGT) MINUS Postfiscal Income A (Disposable Income)	Difference in Inequality between: Prefiscal Income 2 (PGT) MINUS Postfiscal Income B (Consumable Income)
<u>Country</u> (data year)							
<u>Albania</u> (2015)	0,369	0,474	0,345	0,345	0,024	0,024	0,129
<u>Argentina</u> (2012)	0,475	0,502	0,405	0,411	0,070	0,064	0,097
<u>Argentina</u> (2017)	0,477		0,418	0,408	0,059	0,069	

SDG Indicator 10.4.2 Metadata collection form

	WELFARE INDICATOR: DEFINITION						
Country, (data year)	Observed Welfare variable: Income (I) or Consumption (C)	Per Capita (PC) or Equivalized welfare variable?	If equivalized: which equivalence scale used?	Does the value of consumption expenditure include imputed rent for owner-occupied housing?	Does the value of consumption expenditure include the value of consumption from own-production?	Was Consumable Income calculated taking into account the indirect effect of indirect taxes and subsidies (Ch 7 in Lustig, 2021)	Were survey income or consumption measures adjusted to reflect missing "top incomes"?
<u>Albania</u> (2015)	C			NO		YES indirect taxes	NO
<u>Argentina</u> (2012)	I	PC		YES	YES	YES for taxes; NO for subsidies	NO
<u>Argentina</u> (2017)	I	PC		YES	YES	NO	NO

SDG Indicator 10.4.2 and FIA Resources:

- **The Commitment to Equity Institute** at Tulane University – commitmenttoequity.org, info@ceqinstitute.org (unaffiliated)
- **The Global Development Network (GDN)** – www.gdn.int, communications@gdn.int, (unaffiliated, CEQ Institute's implementation partner)
- **The World Bank** – country engagements and the Fiscal and Social Policies (FSP) global support group within the Poverty and Equity Global Practice
- **The OECD** – Center on Well-being, Inclusion, Sustainability, and Equal Opportunity (WISE, www.oecd.org/wise/) and the Statistics and Data Directorate (www.oecd.org/sdd/)

Thank you

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