



**UNU**  
**WIDER**

# EUROMOD-based model development outside the EU

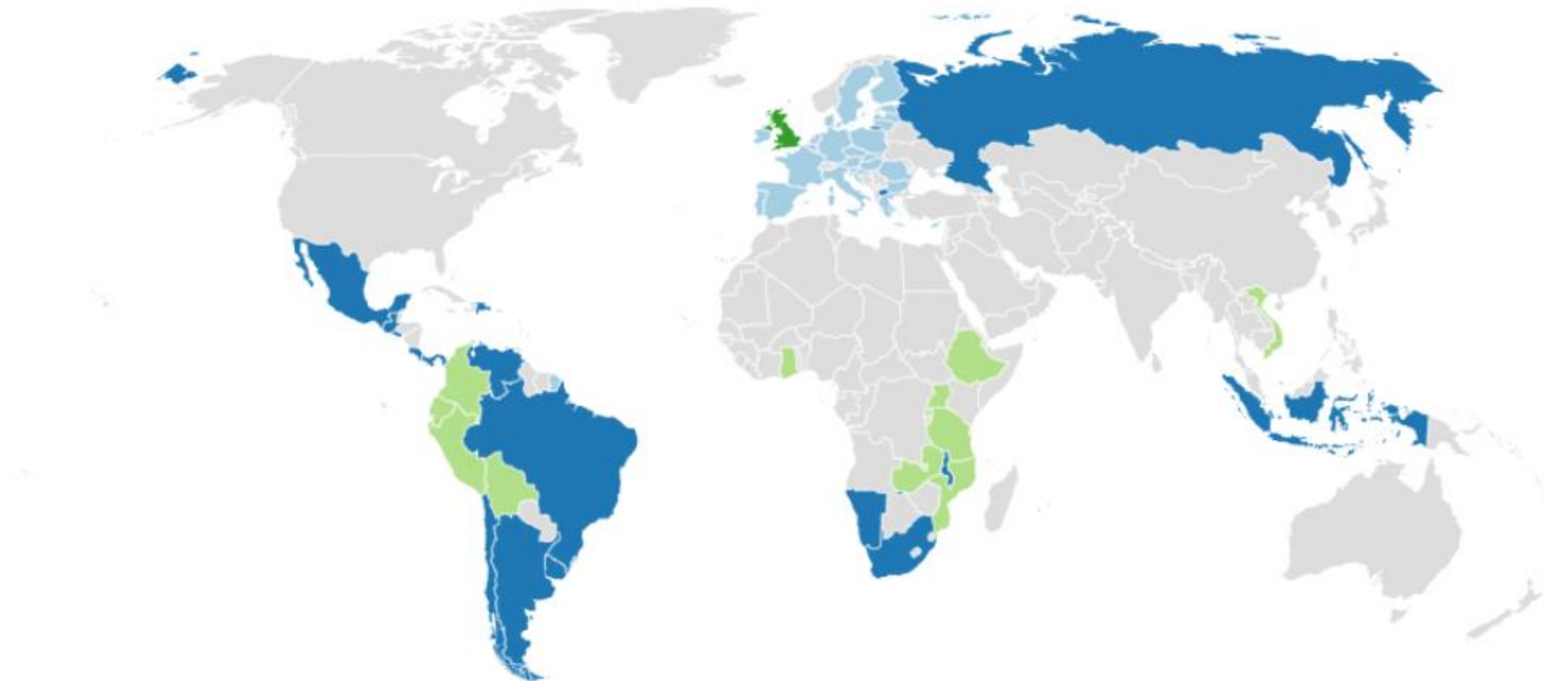
EUROMOD Research Workshop 2024, September 26-27, 2024  
“Global South model developments and applications” session

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## EUROMOD-based models

■ EUROMOD (EU-27) 
 ■ Other EUROMOD-based models 
 ■ SOUTHMOD 
 ■ UKMOD



## SOUTHMOD models

	Bolivia
	Colombia
	Ecuador
	Ethiopia
	Ghana
	Mozambique
	Peru
	Rwanda
	Tanzania mainland
	Uganda
	Vietnam
	Zambia
	Zanzibar



# SOUTHMOD project



saspri



International  
Inequalities Institute



University  
of Essex

13 national  
teams

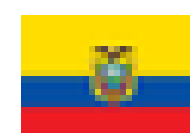
- Collaborative project that aims to develop microsimulation models for the Global South + related research + capacity development
- Started in 2015
- Goal to provide researchers and local policymakers with reliable information and tools to improve tax and social protection policies
  - Focus on evaluating the distributional and budgetary effects of tax-benefit policies and related reforms on households and public finances
  - Comparisons of policies across different countries
- Models and data freely accessible



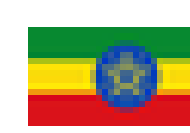
BO



CO



EC



ET



GH



MZ



PE



RW



TZ



UG



VN



ZM



ZN



# Harmonized “SOUTHMOD bundle” released in 2023



NAVIGATION


News

The first-ever bundle of microsimulation models for the Global South released

The **SOUTHMOD** bundle compiles tax-benefit microsimulation models for 12 developing countries into a single platform, drawing inspiration from the tax-benefit microsimulation model for the European Union, **EUROMOD**.

UNU-WIDER’s **SOUTHMOD** project aims to develop and promote tax-benefit microsimulation models in the Global South. Building on the success of **EUROMOD**, a model designed for EU member states, **SOUTHMOD** facilitates rigorous policy analysis and fosters the creation of evidence-based tax and social benefits policies in the developing world.

Each **SOUTHMOD** model enables the assessment of various tax and social protection policies and related reforms, with the goal of creating better understanding of their impact on household incomes, poverty, inequality, and the government budget. The models have proven to be beneficial for both researchers and policymakers, and their advantages will be further amplified by releasing them in a harmonized and integrated format.



Search

Research and Innovation

EUROMOD - Tax-benefit microsimulation model for the European Union

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The SOUTHMOD project releases the first-ever bundle of microsimulation models for the Global South

The SOUTHMOD project releases the first-ever bundle of microsimulation models for the Global South

12 May 2023

Celebrating tax-benefit modeling:  
50 years with  
LOTTE

Jesse Lastunen  
@JesseLastunen

An exciting development in the field of policy research

The first-ever bundle of tax-benefit **#microsimulation** models for the Global South, **SOUTHMOD**, has just been released by **@UNUWIDER**. Inspired by the **@EUROMOD** model, it brings together models for 12 developing countries.

Käännä julkaisu

SOUTHMOD southmod\_a1.0

Countries Display Country Tools Administration Tools Add-Ons Applications

Run SOUTHMOD

BO CO EC ET GH MZ PE RW TZ UG VN ZM

UNU-WIDER @UNUWIDER · 25. toukok.

Supporting decision making in the Global South: our SOUTHMOD tax-benefit models are now compiled into a bundle, which facilitates comparisons between different countries, also European ones. [go.unu.edu/Q64IP](https://go.unu.edu/Q64IP) #SDG17 #DRMprogramme @noradno @LSNews @SasPriSA

Belivia - SOUTHMOD southmod\_a1.0

Tools Administration Tools Add-Ons Applications Help & Info

ET GH MZ PE RW TZ UG VN ZM

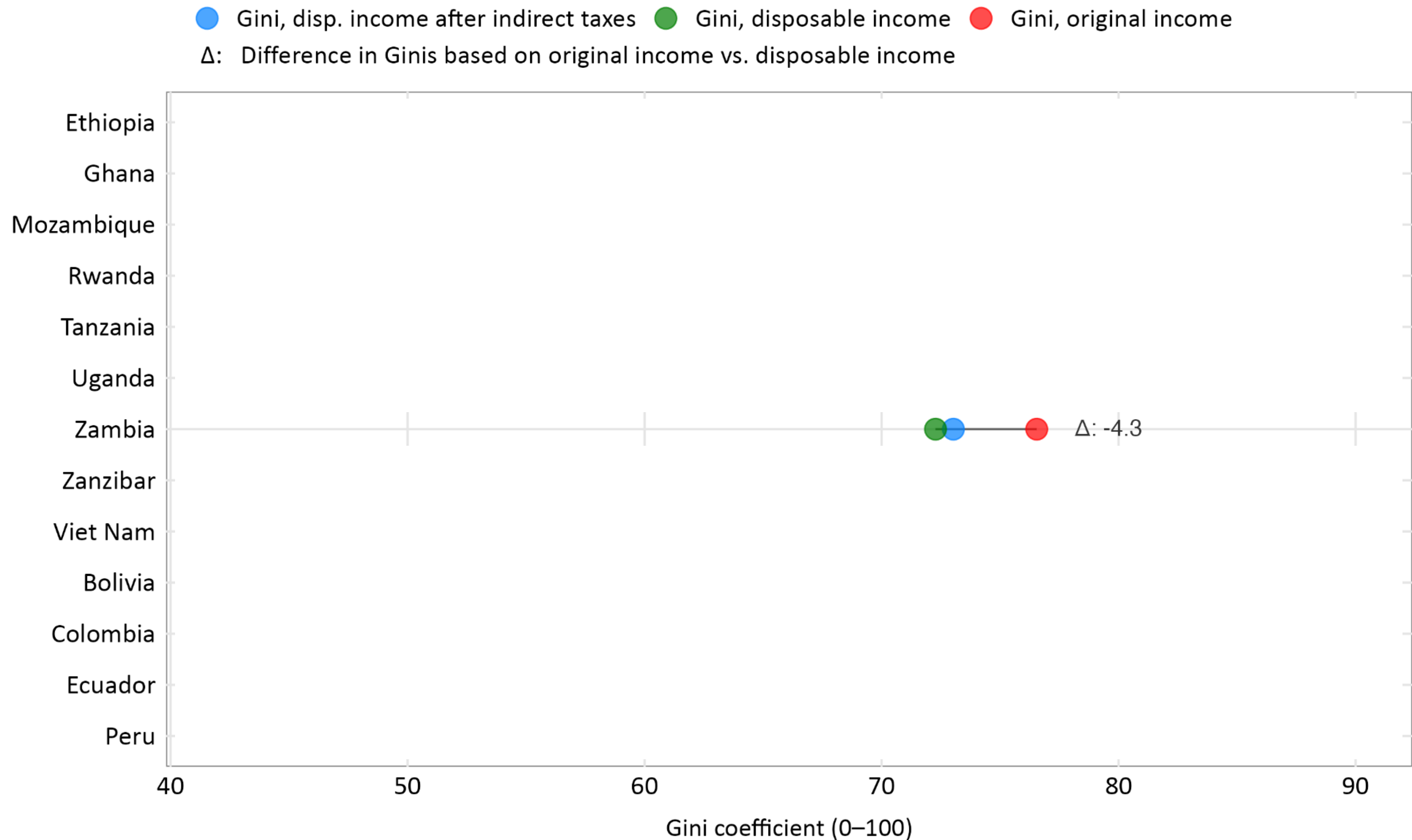
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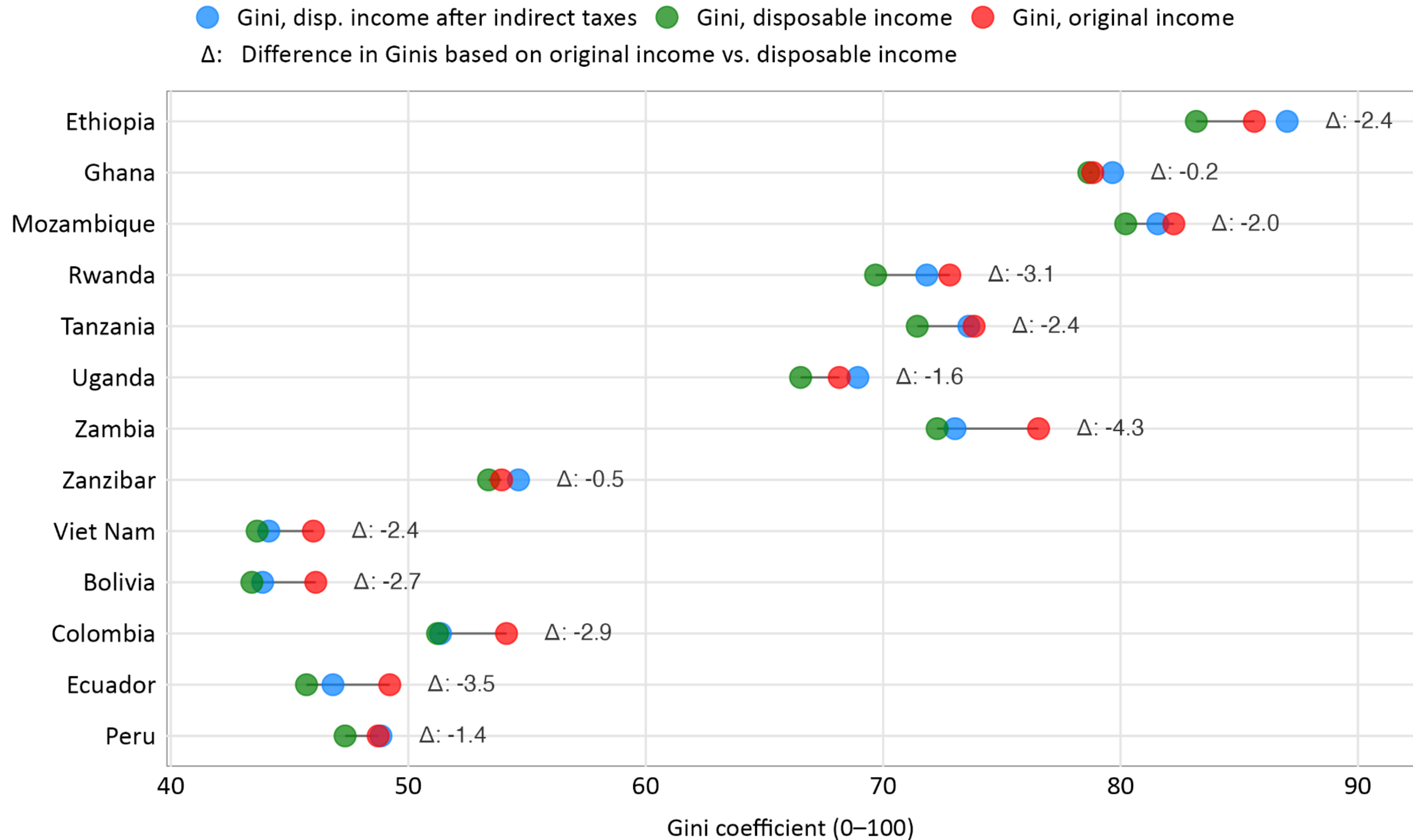
# 2024 SOUTHMOD release

- 13 models + country reports
- SOUTHMOD online course:
  - An introductory open-access course,
  - Targeted at those interested in using SOUTHMOD models, especially people in the Global South – goal to expand access,
  - Intended for users who are new to microsimulation, but it also allows intermediate users to refresh their knowledge,
  - 10 modules/classes with videos, resources, modelling exercises, and multiple-choice questions; those who finish get a certificate.
- A cross-country comparative paper, taking advantage of all 13 models: **“Microsimulation of tax-benefit systems in the Global South: a comparative assessment”**
  - By *Jesse Lastunen (UNU-WIDER), Antoine de Mahieu (UNU-WIDER), Katrin Gasior (SASPRI), H. Xavier Jara (LSE) and Jukka Pirttilä (University of Helsinki)*
  - **Aim:** comparison of policies across different countries.

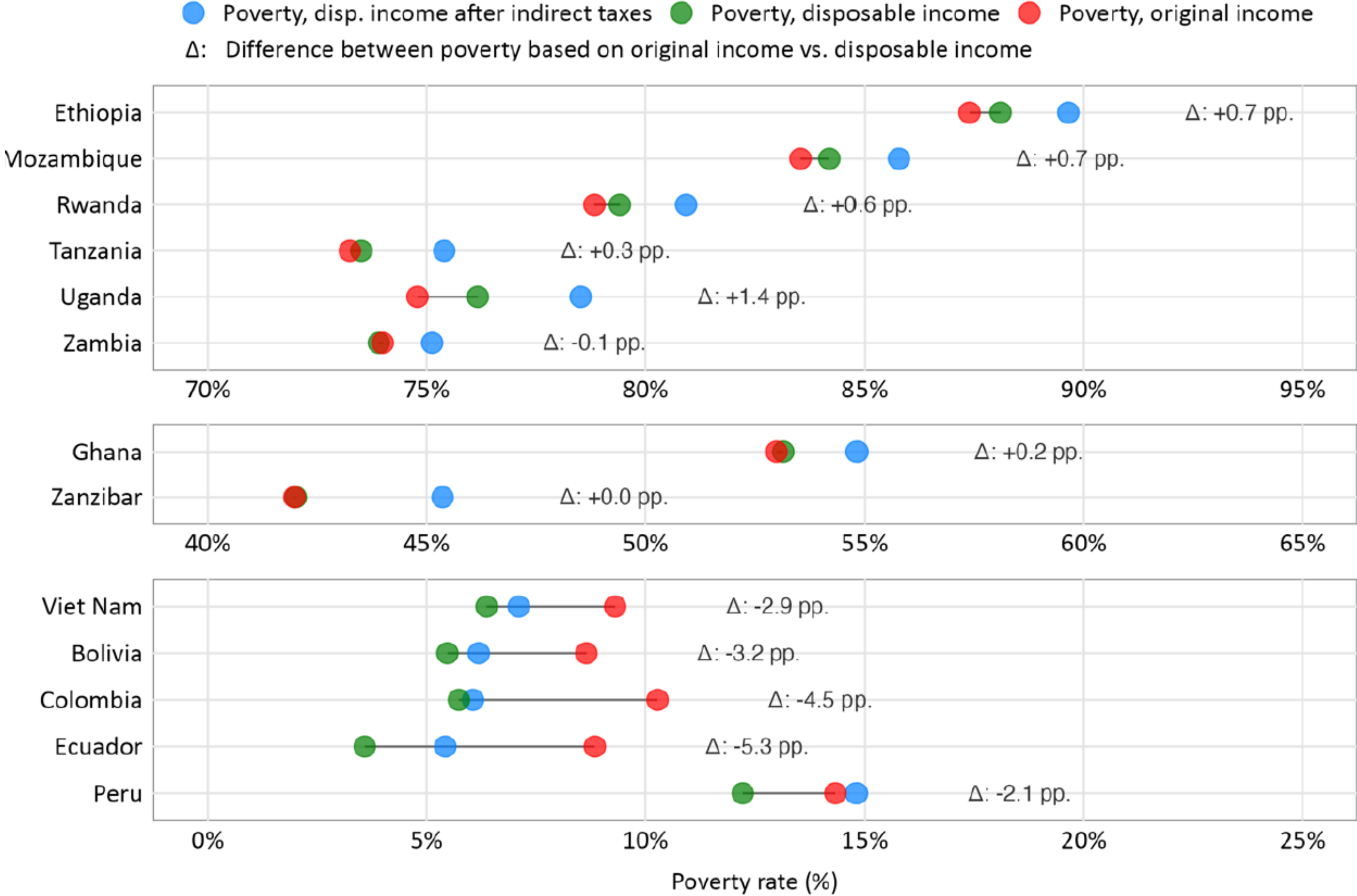
# How effective are taxes and benefits in reducing inequality?



# How effective are taxes and benefits in reducing inequality?

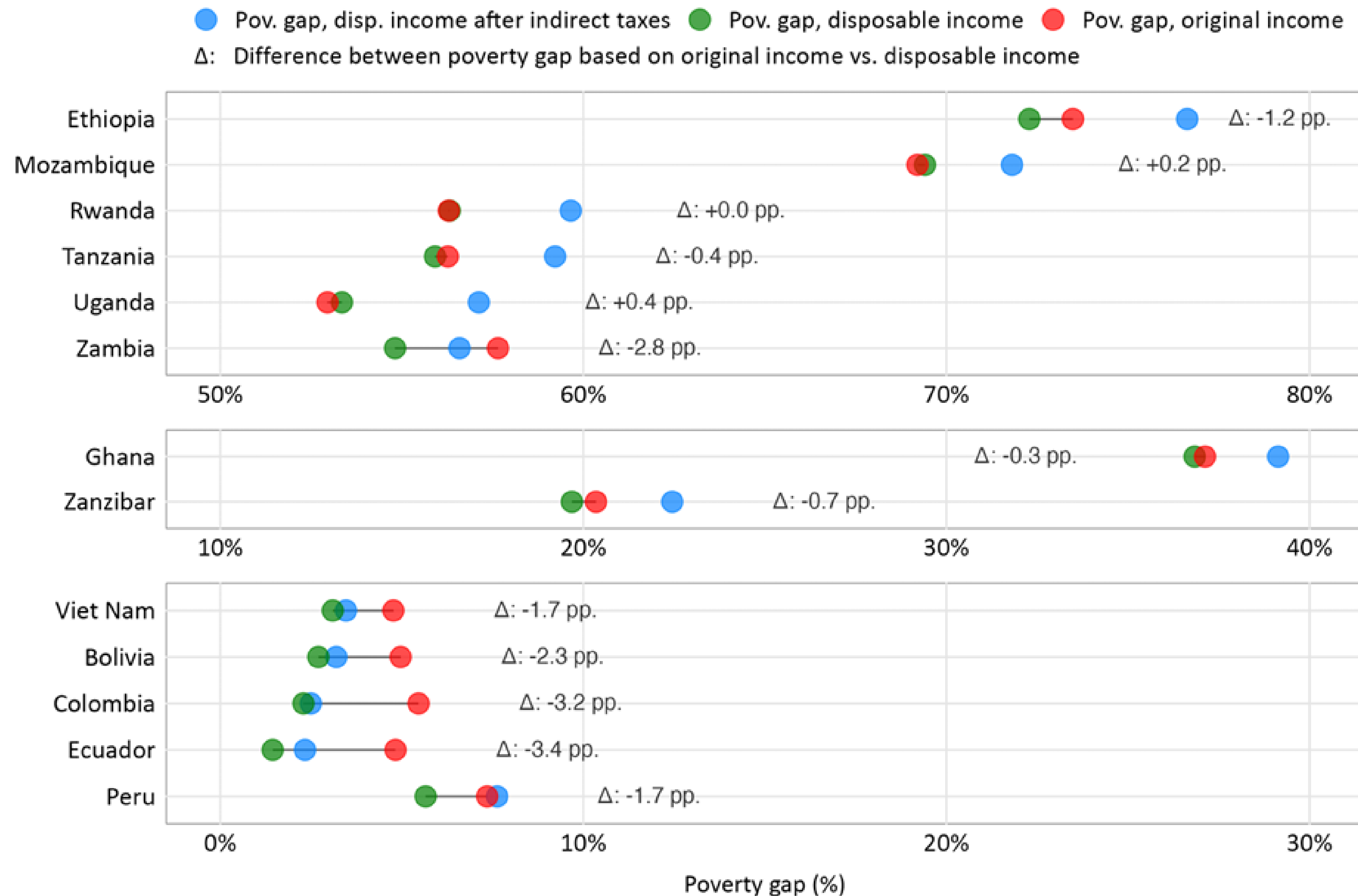


# How effective are taxes and benefits in reducing poverty rate (<\$2.15/day)?





# How effective are taxes and benefits in reducing poverty gap (<\$2.15/day)?



# Thank you!

- Access the models: [wider.unu.edu/about/accessing-southmod-models](https://wider.unu.edu/about/accessing-southmod-models)
- SOUTHMOD online training: [wider.unu.edu/about/southmod-online-training-course](https://wider.unu.edu/about/southmod-online-training-course)
- Webpage and Country Reports: [wider.unu.edu/project/southmod-simulating-tax-and-benefit-policies-development-phase-3](https://wider.unu.edu/project/southmod-simulating-tax-and-benefit-policies-development-phase-3)
- SOUTHMOD User Manual: [wider.unu.edu/sites/default/files/Projects/PDF/SOUTHMOD\\_UserManual\\_20240307.pdf](https://wider.unu.edu/sites/default/files/Projects/PDF/SOUTHMOD_UserManual_20240307.pdf)
- Sign up for the SOUTHMOD newsletter: <https://www2.wider.unu.edu/content/profile-centre-network-signup>



More information available online

**wider.unu.edu**

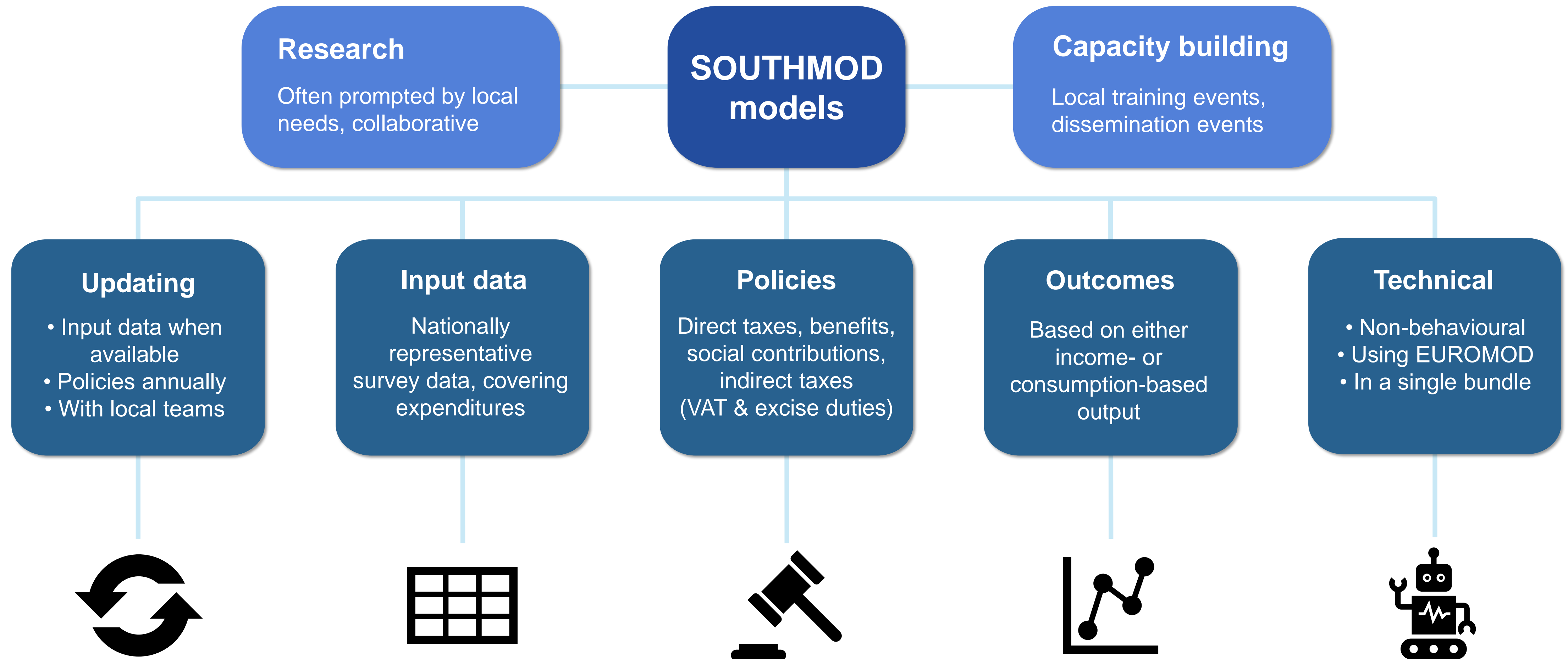
Contact: Anna Zasova, [anna.zasova@wider.unu.edu](mailto:anna.zasova@wider.unu.edu)

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**Extra slides**



# More about the models



# Data

- Nationally representative survey data
  - Incomes, labour market characteristics, demographics, hh relationships, etc.
- Differences to the EU – and between SOUTHMOD countries:
  - Data availability and format
    - Survey data
    - Policy rules
    - External validation data
  - Data requirements of the systems to be simulated
  - Inclusion of detailed info on household expenditures, especially in Africa



# Characteristics of developing countries that influence tax-benefit modelling

- Informal employment is common
  - Generally no taxes or social contributions are paid in the informal sector
- Social protection measures may not be fully rolled out as specified in the legislation, potentially leading to “over simulation” of benefits
- Prevalence of distinct in-kind benefits, such as school meals
- Prevalence of proxy-means tested benefits
  - Requires approximating the proxy-means tested index used to assess eligibility, based on access to water in the dwelling, floor material, etc.

# Importance of indirect taxes

- Dependence on indirect taxes is relatively high in low-income countries
- VAT and excise duties are included in SOUTHMOD models
  - Made possible by surveys with detailed information on expenditures, and even quantities, for a detailed breakdown of total expenditures
- As of 2025, SOUTHMOD models will include fuel subsidies