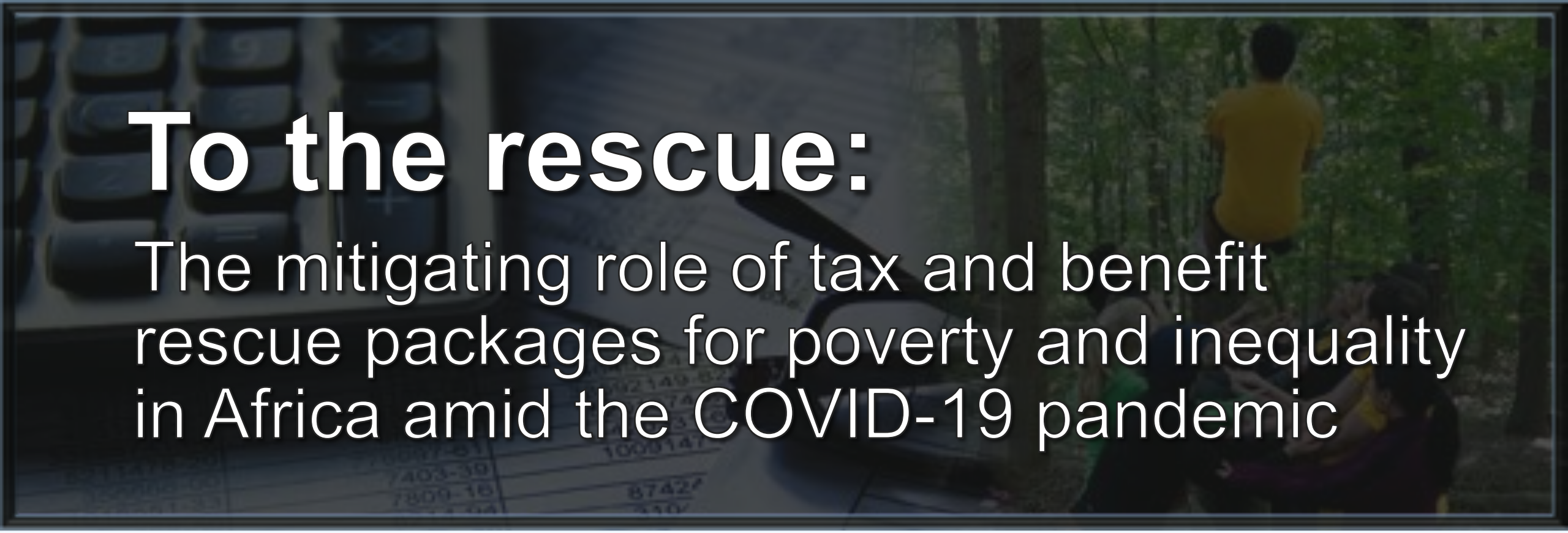

To the rescue:

The mitigating role of tax and benefit rescue packages for poverty and inequality in Africa amid the COVID-19 pandemic

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Development challenges in Africa in the wake of the COVID-19 pandemic
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Background: SOUTHMOD Project

- **The study is part of the "SOUTHMOD" research project at UNU-WIDER**
  - We develop and use **tax-benefit microsimulation models** in developing countries
    - *Used to understand who pays how much taxes and who receives benefits;*
    - *How taxes and benefits affect the government budget; and*
    - *Estimate the effects of tax/social protection reforms*
  - **Collaborate with country teams** as well as SASPRI and the University of Essex
  - **Capacity building**, modeling workshops, online training portal planned
- **Work in progress: Research project on the distributional effects of COVID**
  - **Africa:** Ghana, Zambia, Mozambique, Uganda, Tanzania & South Africa
  - Ecuador (working paper on short-run effects out) & Vietnam

Background: Africa COVID Study

- **We focus on the six African SOUTHMOD countries from previous slide**
  - Most of these countries are **particularly vulnerable to the pandemic**
  - We make use of microsimulation models developed for each country, and
  - Leverage national research teams to understand country-specific circumstances

- **We estimate *(1)* the effects of the pandemic and related lockdown measures on poverty and inequality, and *(2)* the contribution of new tax and benefit policies in mitigating the adverse impacts in each country**
  - Focus on differences in outcomes across population groups, i.e. different demographics and parts of the income distribution

Methods

1. Develop “pre-crisis“ datasets for early-2020

- Reweight the datasets used in the models (from 2014–2018) so that they match with **population estimates from the first quarter in 2020** (by age and sex groups)

2. Develop “crisis“ datasets that account for the effect of COVID in 2020

- Lockdown measures and restrictions reduced economic activity across sectors
- Currently, we use **World Bank’s pre-crisis and crisis demand predictions** to estimate how different industries were affected, and reduce individual incomes accordingly

3. Gather information on and model tax-benefit policies during COVID

4. Study the effects of the pandemic and COVID policies via microsimulation and decomposition techniques

Methods

4. Study the effects of the pandemic and COVID policies via microsimulation and decomposition techniques

- We examine the distributional impacts of the crisis by comparing scenarios ***with and without the COVID-19 shocks*** and ***with and without different policies***
- We can then answer questions, such as:

1. **How much incomes and poverty would have changed in the absence of any government intervention?**
2. **To what extent 'normal' tax and benefit policies help mitigate the shock through automatic stabilisers?**
3. **How much incremental relief is offered by the new COVID-related tax and benefit measures?**

Methods

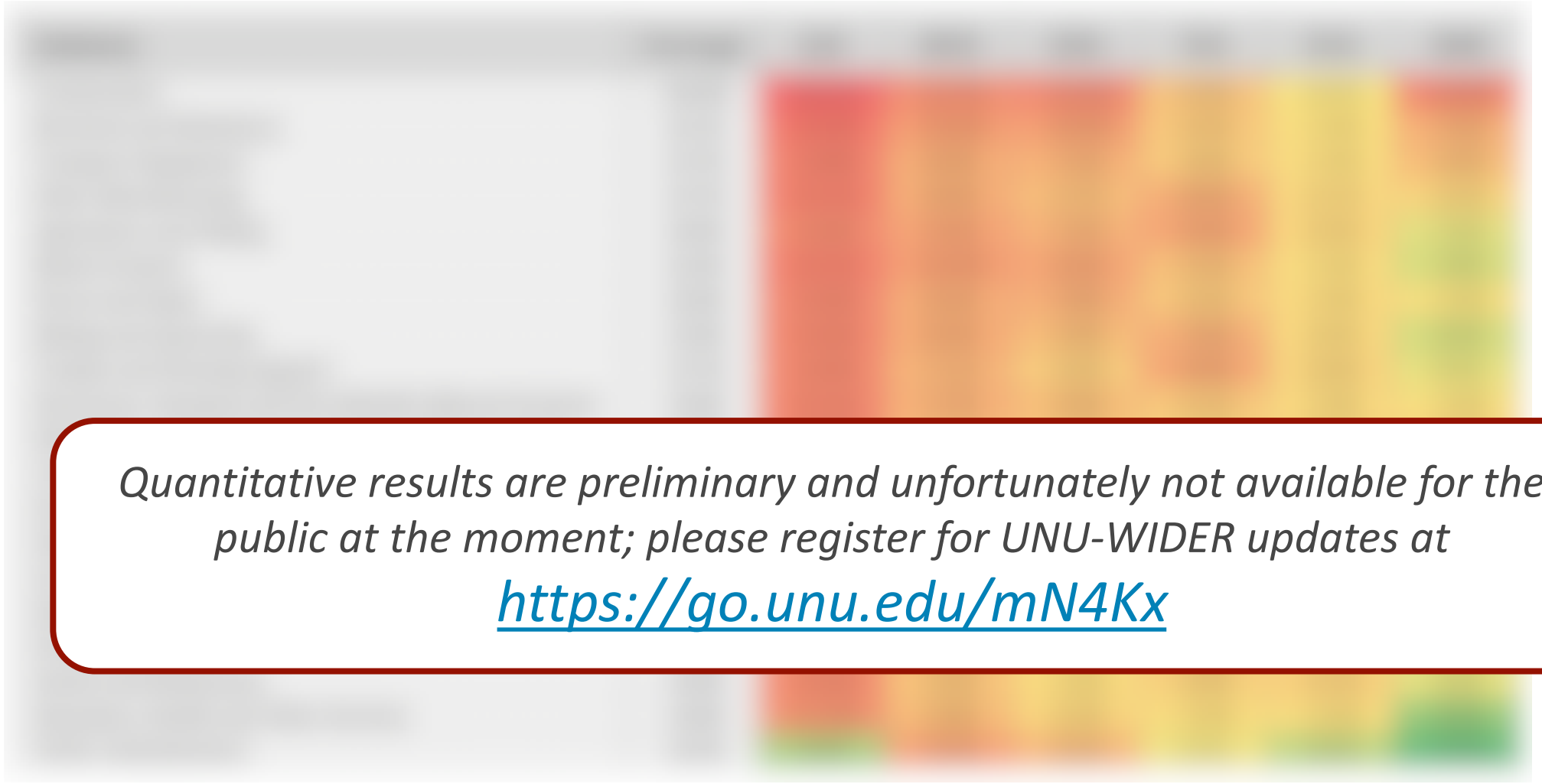
1. Developing pre-crisis (Jan 2020) datasets

2. Developing “crisis“ datasets that account for the effect of COVID

3. Gathering information on and modelling tax-benefit policies during COVID

4. Study the effects of the pandemic and COVID policies via microsimulation and decomposition techniques

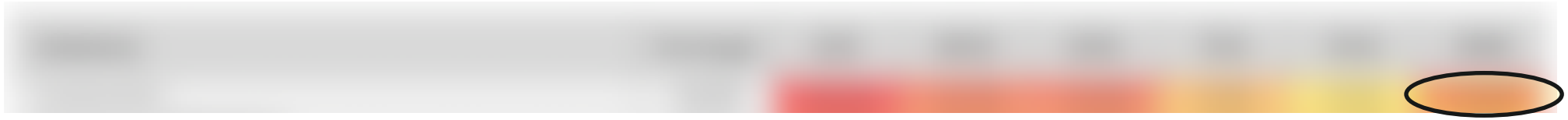
The effect of COVID and related lockdown measures on *industry-level* GDP in 2020



Quantitative results are preliminary and unfortunately not available for the public at the moment; please register for UNU-WIDER updates at

https://go.unu.edu/mN4Kx

Reduce *individual* incomes in model input data based on the *industry* shocks



1. Assume that labour income in the construction sector is reduced in proportion to the GDP shock, i.e. by 25%, because of COVID

2. Assign randomly selected workers in the construction sector unemployed with zero income so that total labour income in the sector is reduced by 25%

3. Do this for random workers in all industries experiencing a negative GDP shock

4. Adjust household expenditures in proportion to income changes

Results

1. Developing pre-crisis (Jan 2020) datasets

2. Developing “crisis“ datasets that account for the effect of COVID

3. Gathering information on and modelling tax-benefit policies during COVID

4. Study the effects of the pandemic and COVID policies via microsimulation

Results

3. Gathering information on and modelling tax-benefit policies during COVID

In addition to updating any existing tax-benefit policies in the models, we identified and modelled a range of COVID-related policies across countries

- As an example, in **Mozambique** and **Ghana**, utility fees were reduced or waived for consumers for the rest of 2020
- **Tanzania**'s efforts have included informal support to hospitals and orphanage centres, along with tax exemptions for supplies for general pandemic management
- **Zambia** enacted an *Emergency Social Cash Transfer*

Results

1. Developing pre-crisis (Jan 2020) datasets

2. Developing “crisis“ datasets that account for the effect of COVID

3. Gathering information on and modelling tax-benefit policies during COVID

4. Study the effects of the pandemic and COVID policies via microsimulation and decomposition techniques

Reservations

- **Poverty results are based on national poverty lines and equivalence scales**
  - Speaking to the national context – not comparable between countries
  - Forthcoming Africa comparative study will use a harmonized poverty line & equivalence scale
- **Limitations in modelling of COVID shock and impact on incomes and consumption**
  - Use of aggregate-level macro data
  - Random allocation of workers within industries into unemployment
- **Next phase: person-level data, e.g. from World Bank phone surveys in Uganda and Tanzania, and similar data from South Africa, to assess income shocks**
  - Survey data helps understand what types of works are affected *(e.g. formal vs. informal)* and how *(e.g. reduced incomes vs. complete loss of employment)*

Results

4. Study the effects of the pandemic and COVID policies via microsimulation and decomposition techniques

Outcomes shown:

- Increases in consumption-based poverty and inequality due to COVID
- Decomposition of changes in disposable household income

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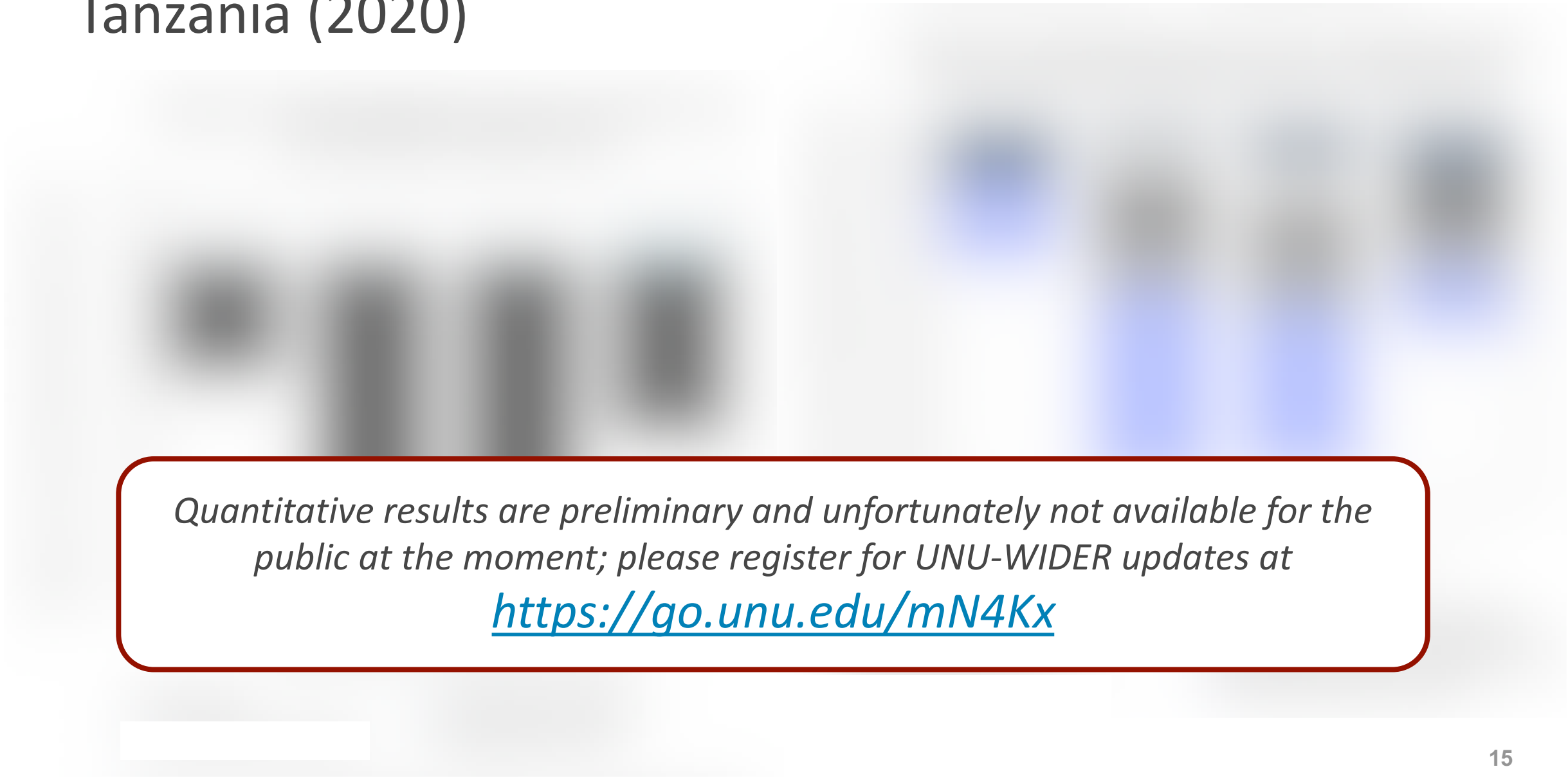

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Mozambique (2020)

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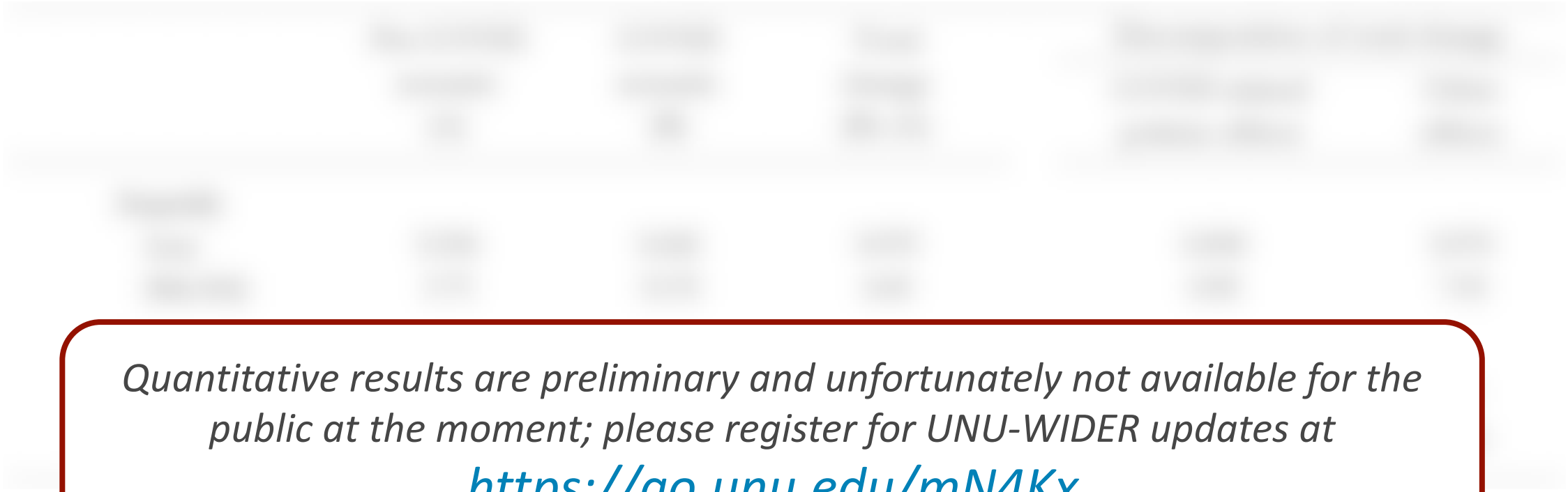
Zambia (2020) – Including the Emergency Cash Transfer



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Preliminary findings

- **Modest increases in consumption-based inequality, larger growth in poverty**
  - Largest adverse effects in Mozambique, burden on farmers in the informal sector
  - Higher-income households in these countries have also experienced notable reductions in incomes
- **The Emergency Social Cash Transfer in Zambia was likely quite effective in reducing income reductions at the bottom of the income distribution**
  - Tax-benefit policies in other countries are mostly of smaller
- **Automatic stabilizers are very limited in compensating for income losses**

Next steps

1. Use of micro data to model shocks from COVID and labour market transitions
2. Model selected COVID-driven tax-benefit policies in the remaining countries
3. Develop experiments for policy alternatives in collaboration with national teams
4. Communicate results and policy lessons to researchers and policymakers

Links:

- Working paper on the short-run effects of COVID in Ecuador: www.wider.unu.edu/publication/role-automatic-stabilizers-and-emergency-tax%E2%80%93benefit-policies-during-covid-19-pandemic
- Blog on the SOUTHMOD COVID-19 initiative: www.wider.unu.edu/publication/studying-covid-19-through-lens-microsimulation
- SOUTHMOD at WIDER: www.wider.unu.edu/project/southmod-simulating-tax-and-benefit-policies-development-phase-2
- Accessing SOUTHMOD tax-benefit microsimulation models: www.wider.unu.edu/about/accessing-southmod-models

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