

A role for universal pension? Simulating universal pensions in Ecuador, Ghana, Tanzania and South Africa

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Motivation

- ▶ **Sustainable Development Goals** highlight the importance of **social protection** and **domestic revenue mobilization**
 - ▶ Yet, many developing countries do not provide social security for old-age even if the dependency ratio of the elderly has increased
 - ▶ Affordability of social protection is a challenge in developing countries
- ▶ Microsimulation model is a **capable tool** for analysing (first-round) effects of **tax-benefit policies** on **poverty and inequality**
 - ▶ Static tax-benefit microsimulation models are common in developed countries but rarely available in developing countries
- ▶ Only few previous studies use microsimulation for comparing effects of (universal) social protection policy across different developing countries

This study

- ▶ We use four **novel, cross-country comparable, static** tax-benefit microsimulation models to evaluate **ex ante** a universal pension in four developing countries (Ecuador, Ghana, Tanzania and South Africa)
 - ▶ for more information about the models, see the **SOUTHMOD** project page
- ▶ Three different universal pension reform scenarios
- ▶ Estimate **distributional measures** from simulated data:
 1. The headcount index (FGT(0))
 2. The poverty gap index (FGT(1))
 3. Gini coefficient
- ▶ Compare estimates to status quo and between different reform scenarios
- ▶ Analyse costs of interventions

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Why choose four countries for analysis?

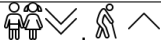
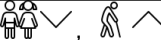
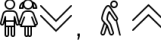
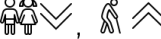
	Economic status	Social protection	Dependency ratios
GH	Lower middle	Low	
TZ	Low	Low	
EC	Upper middle	High	
SA	Upper middle	High	

Table 1: Economic and demographic development across countries

- ▶ All countries have similar interests and concerns regarding social protection
- ▶ SOUTHMOD microsimulation models
 - ▶ Allow **detailed implementation** of different reform scenarios thanks to **versatility** of the EUROMOD platform
 - ▶ Allow **comparison** across countries

Existing pension schemes

- ▶ **GH**: Only contributory based pension schemes with low coverage
- ▶ **TZ** (mainland): Only contributory pension schemes with low, fragmented coverage
- ▶ **EC**: Means-tested pension scheme and contributory pension system, combined coverage of 62% of population aged 65 years or older (HelpAge International, 2017)
- ▶ **SA**: Minimum pension scheme which is targeted (means-tested) to poor citizens with coverage of 74% of population aged 60 years or older (HelpAge International, 2017); also contributory schemes for workers

Design of universal pension reform

- ▶ Three different universal pension reforms:
 1. **R1** (generous, national): 60 years or older and benefit amount is 50% of the national poverty line (generous benefit and wide coverage)
 2. **R2** (small, national): 70 years or older and benefit amount is 50% of the food poverty line (limited benefit and low coverage)
 3. **R3** (WB): 60 years or older and benefit amount is 50% of the World Bank USD 3.10 a day line (internationally more comparable)
- ▶ The **largest benefit amount** in **R1** in **GH**, **EC** and **SA**, and in **R3** in **TZ**
- ▶ For Ecuador and South Africa we compare reforms for both **maintaining** and **abolishing** existing targeted pension systems
 - ▶ if maintaining, universal pension is given as a top-up for existing pension
 - ▶ if abolishing, everyone gets only universal pension

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Coverage rates under reform 1 (in %)

	GH	TZ	EC	SA
Seniors (60+) out of total population	6.6	5.8	8.3	8.1
Recipients out of age group (60+)	96.9	99.4		
	Abolish minimum pension			
Recipients out of age group (60+)			81.3	100.0
	Top-up universal pension			
Recipients out of age group (60+)			51.3	14.4

Notes: Recipients under R1 (benefit for seniors age 60 or older).

Table 2: Coverage rates of the universal pension. Source: Authors' own calculations.

Poverty – Ghana and Tanzania

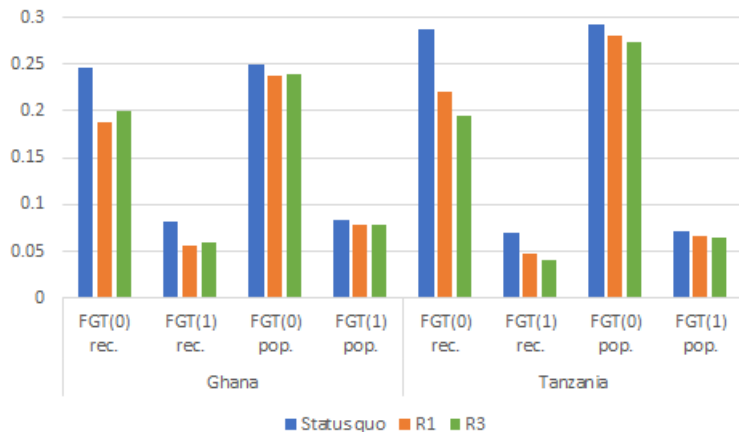


Figure 1: Poverty estimates for Ghana and Tanzania. Source: Authors' own calculations.

Inequality – Ghana and Tanzania

- ▶ Inequality is going down, especially among the elderly population
 - ▶ In **GH, R1** (generous, national) decreases Gini coefficient by 3.4% in the recipient group and 1.2% in total population (status quo: 0.44 and 0.43)
 - ▶ In **TZ, R3** (WB) inequality among elderly population is lower than in total population under the status quo (0.37 vs 0.42) and it is going down by 4% in the recipient group

Poverty and inequality – Ecuador and South Africa: abolishing existing schemes

- ▶ In **EC**, when abolishing the existing targeted pension scheme,
 - ▶ **R1** (generous, national) **reduces** poverty and inequality of the total population and the recipients group (in rec. group FGT(0) 0.18 vs 0.21, Gini 0.52 vs 0.53)
 - ▶ **R2** (small, national) **increases** both poverty and inequality
 - ▶ **R3** (WB) has almost **no impact**
- ▶ In **SA**,
 - ▶ All reforms **increase** poverty and inequality (in rec. group for **R1** (generous, national) FGT(0) 0.61 vs 0.46, Gini 0.70 vs 0.65)
 - ▶ Due to loosely-targeted and more generous existing scheme

Poverty and inequality – Ecuador and South Africa: maintaining existing schemes

- ▶ In **EC**, when maintaining existing pension scheme and comparing top-up universal pension to existing pension scheme
 - ▶ Both poverty and inequality is **decreased** in all reforms
 - ▶ The existing means-tested pension does not capture all poor elderly citizens
 - ▶ Poverty and inequality **decrease most in R1** (generous, national) **in the recipient group** (headcount poverty by 19%, poverty gap index by 33% and Gini coefficient by 2.9%)
- ▶ In **SA**,
 - ▶ All reforms have almost **no impact** on poverty and inequality
 - ▶ the top-up universal pension is going to citizens who are not poor since existing targeted pension has high coverage among poor elderly

Expenditure analysis

	GH	TZ	EC	SA
As share of GDP (in %)	0.4 - 1.2	0.3 - 1.3	0.4 - 1.6	0.2 - 0.9
As share of government revenue (in %)	2.2 - 7.4	2.1 - 8.7	0.2 - 1.0	0.5 - 2.3
As share of total direct tax receipt (in %)	5.6 - 18.4	7.8 - 33.1	3.8 - 14.8	1.0 - 5.2

Notes: For Ecuador and South Africa, estimates for scenario where existing targeted pension is abolished.

Table 3: Expenditure on the universal pension. Source: Authors' own calculations.

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- ▶ Unsurprisingly, we find that both poverty and inequality decrease in **GH** and **TZ** where existing schemes reach very few elderly
- ▶ In **EC** and **SA** results depend on the coverage and generosity of existing pension schemes
- ▶ The costs of the proposed reforms vary considerably between countries and reform scenario; costs are larger in **GH** and **TZ** where domestic revenue mobilization capacity is lower than in **EC** and **SA**
- ▶ **Caveats:**
 - ▶ We do not provide revenue-neutral reforms
 - ▶ country-specific studies
 - ▶ Harmonisation of models is an ongoing process
 - ▶ Models are static, we abstract from behavioural changes

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