The effectiveness of social protection in five African countries through normal times and times of crisis

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Motivation and Background

- To cope with a negative shock, in the absence of social protection, individuals can:
    - Self-insure (by borrowing, drawing on savings, relying on support from family members etc)
    - Insure privately on the market

- But:
    - Not everyone can save or borrow
    - Ability to rely on others may be constrained at times of widespread increase in needs
    - Private insurance against a job loss usually does not exist

- **Government policy response via social protection benefits key for redistributing resources and providing social assistance and insurance**

Motivation and Background

- Social protection in Sub-Saharan Africa
  - A large share of benefits go to the poor (e.g. Handa et al. 2012; Coady et al. 2004)
  - But limited benefit coverage of the poor and limited effectiveness of systems to redistribute resources and reduce poverty (e.g. World Bank 2022; Warwick et al. 2022; Adu-Ababio 2022; Bargain et al. 2021; Gasior et al. 2021; Brown et al. 2018; Inchauste and Lustig 2017)

- Poverty in Sub-Saharan Africa increasing due to Covid-19 and surging prices (Mahler et al., 2022) but little government spending on social protection in the region (ILO, 2021)

- Little evidence on how responsive social protection systems are to negative shocks in low- and lower-middle-income countries
  - Important to understand in order to design (more) effective systems

Our paper

- Examine the performance of social protection systems in five African countries
  - Lower-middle-income: Ghana and Tanzania
  - Low-income: Mozambique, Uganda and Zambia

- Study population coverage of social protection benefits and their impact on consumption poverty in normal times and times of crisis
  - *'Normal'* times $\rightarrow$ pre-pandemic 2019
  - *Crisis* $\rightarrow$ simulate hypothetical reduction to household earnings or employment

- Use a new microsimulation model for Sub-Saharan African countries (SOUTHMOD)
  - Uses nationally representative household surveys
  - To calculate benefit entitlements, tax liabilities, and hh net income in normal times and during crisis

- Study effects of benefits on hh consumption

Our paper

1. Assess the extent to which social protection benefits provide support to households in 'normal' times
   - The better benefit coverage and adequacy, the better households are prepared for an economic shock

2. Examine how effective benefits – 'automatic stabilisers' – are in protecting incomes/consumption during crisis
   - The more responsive policies are to changes in people's circumstances, the more insurance and income/consumption smoothing provided

Why are automatic stabilisers (AS) important?

- In-built flexibility of existing benefits to respond automatically to expansion and contraction of economy, e.g. unemployment insurance and means-tested benefits

- ↓ variation in hh incomes and consumption and provide social insurance against risks (Brewer and Tasseva 2021; Cantó et al. 2021; Jara et al. 2021; Lastunen et al. 2021; Fernández Salgado et al. 2014; Dolls et al. 2012; Browning and Crossley 2001)

- ↓ poverty volatility over the business cycle (Bitler and Hoynes 2016)

- Redistribute resources (Paulus and Tasseva 2020)

Why are AS important?

Many advantages of AS over discretionary gov't response. With AS:

- No extra gov't intervention needed $\rightarrow$ no time delay between gov't decision and new policy

- Support provided for as long as needed and targeted to those in need

- Policy provision via existing administration and infrastructure

- Policy makers freed up to focus on the idiosyncratic and unanticipated aspects of crisis (Orszag et al., 2022)

Constraints on AS

- By design policies may not respond to fluctuations in hh incomes or only respond with a delay, e.g. proxy means-tested benefits
  - But can act as a safety net for families in receipt prior to shock

- Limited effectiveness due to limitations of existing policies, e.g. gaps in coverage or low value of benefit payments

- Limited fiscal space to expand spending in crisis, e.g. inability to borrow limiting impact of policies
  - But all countries raised debt to GDP levels substantially through the pandemic (by 19% in Uganda to 32% in Zambia in 2020 compared to 2019)

Existing benefits

	Ghana	Mozambique	Tanzania	Uganda	Zambia
Non-means-tested benefits (NMTB)					
Children, youth	✓				✓
Old-age				✓	
Farmers					✓
Means-tested benefits (MTB)					
Social assistance	✓	✓	✓		✓
Farmers					✓
Social insurance pensions (P)	✓	✓			✓

NMTB = universal within a certain group e.g. children.

MTB = targeted at poorer/vulnerable groups subject to a means-test.

P = eligible if paid social insurance contributions for e.g. old-age or disability.

Existing benefits

- Eligibility for means-tested benefits includes an income-test in Mozambique and Tanzania

- But generally linked to proxies of income, and not income itself, and/or eligibility criteria are tight
  - e.g. food insecurity (Tanzania, Zambia); vulnerability (Ghana, Zambia); hh presence of children (Ghana, Tanzania, and Zambia) and/or disabled or chronically ill people (Ghana, Mozambique, Zambia)

- Unemployment insurance programmes generally don't exist

- Overall little spending on social protection as % of GDP
  - 1.7% in Ghana and Tanzania and <1% in Mozambique, Uganda and Zambia
  - Compared to 3.8% on average for Africa and 12.9% for the World

The data and SOUTHMOD

- Nationally representative household budget surveys
  - Main source for official national statistics on poverty and inequality
  - Source for the World Bank Poverty and Inequality Platform + Our World in Data's poverty section

- Tax-benefit model SOUTHMOD (Decoster et al., 2019)
  - Developed by UNU-WIDER, SASPRI, Uni Essex + national partners in each country
  - Combines survey info on household gross incomes, consumption and characteristics with tax-benefit policy rules
  - Calculates, for each household, social protection benefit entitlements, tax liability and net income

Simulation of shocks

- Stress-test the benefit system (Atkinson, 2009)

- Simulate two types of shock (Dolls et al., 2012) to:
  – Earnings: 10% proportional reduction to individual's earnings
  – Employment: randomly move people into unemployment, so aggregate earnings fall by 10%

- Use SOUTHMOD to calculate hh benefits, income and consumption before & after shock
  – Assume Marginal Propensity to Consume of 1, i.e. all of an increase in income is consumed (results assuming MPC=0.7 qualitatively similar)

- Advantages of hypothetical shocks over observing actual crisis:
  – Isolate response of benefit AS, without interactions with potential discretionary gov't response
  – Assess cross-country differences in benefit AS
  – Assess if type of shock matters for benefit responsiveness

Benefit coverage: % of individuals living in households receiving benefits

	B	NMTB	MTB	P
Ghana	53.7	52.5	.8	1.4
Mozambique	8.5	.0	6.6	2.0
Tanzania	8.0	.0	8.0	.0
Uganda	3.8	3.8	.0	.0
Zambia	53.0	39.7	23.4	.9

Notes: Number of people living in households receiving benefits, as a proportion of total population. B = all benefits (NMTB + MTB + P). NMTB = non-means-tested benefits. MTB = means-tested benefits. P = social insurance pensions.

Benefit coverage by income/consumption quintiles
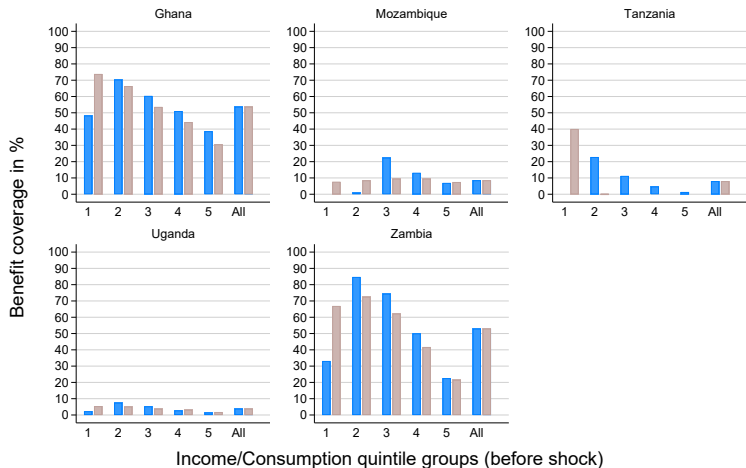
Notes: Number of people living in households receiving benefits, as a proportion of total population/population in quintile group.

Consumption poverty rate and poverty reduction (Δ) due to benefits

	Poverty rate (%)		Δ (% points) due to
	Total	Pre-B	B
Ghana	17.3***	19.8***	-2.5***
	(.46)	(.50)	(.20)
Mozambique	56.7***	57.5***	-.8***
	(.49)	(.48)	(.07)
Tanzania	44.3***	44.3***	.0
	(.63)	(.63)	(.00)
Uganda	65.3***	65.5***	-.2***
	(.58)	(.58)	(.04)
Zambia	54.3***	56.6***	-2.3***
	(.66)	(.65)	(.16)

Notes: The poverty line equals $1.9 per day (2011 PPP). Total = total hh consumption. Pre-B = hh consumption before accounting for benefits receipt. B = the reduction to poverty due to benefits (i.e. the difference in poverty based on Total versus Pre-Benefits consumption).

Results so far

- Less than 1 in 10 individuals receive social protection benefits in Mozambique and Tanzania and 1 in 20 in Uganda, compared to 1 in 2 in Ghana and Zambia

- Relatively high poverty rate in Ghana (17%) and very high poverty rates of more than 40% in remaining countries

- A large proportion of the consumption-poorest 20% of population receive benefits in Ghana (74%), Zambia (68%) and Tanzania (40%)

- But, though an important source of income for some in poverty, benefits do relatively little to reduce poverty in normal times
  - Highest impact in Ghana of 2.5pp reduction (14.5%), and Zambia of 2.3pp (4%)
  - Negligible impact in Mozambique, Tanzania and Uganda

Benefit coverage in normal times and impact of a shock

|	Normal times	Impact of a shock (% points)	
	(%)	**Employment shock**	**Earnings shock**
Ghana	53.7	.0	.0
Mozambique	8.5	.1	.1
Tanzania	8.0	.0	.0
Uganda	3.8	.0	.0
Zambia	53.0	.0	.0

Notes: Coverage = number of people living in households receiving benefits, as a proportion of total population.

Consumption poverty rate in normal times and impact of an employment shock

	Normal times			Impact of a shock: Δ (% points) to normal times		
	Total	Pre-B	B	Total	Pre-B	B
Ghana	17.3***	19.8***	-2.5***	3.6***	3.7***	-.1
	(.0)	(.1)	(.0)	(.3)	(.2)	(.1)
Mozambique	56.7***	57.5***	-.8***	1.4***	1.4***	.1***
	(.4)	(.4)	(.0)	(.0)	(.0)	(.0)
Tanzania	44.3***	44.3***	.0***	2.9***	2.9***	.0
	(1.8)	(1.8)	(.0)	(.4)	(.4)	(.0)
Uganda	65.3***	65.5***	-.2***	2.5***	2.5***	.0***
	(.2)	(.2)	(.0)	(.1)	(.1)	(.0)
Zambia	54.3***	56.6***	-2.3***	2.2***	2.1***	.0
	(.5)	(.8)	(.3)	(.1)	(.2)	(.1)

Notes: The poverty line equals $1.9 per day (2011 PPP). Total = total hh consumption. Pre-B = hh consumption before accounting for benefits receipt. B = the reduction to poverty due to benefits (i.e. the difference in poverty based on Total versus Pre-Benefits consumption).

Impact of an employment shock on mean net income
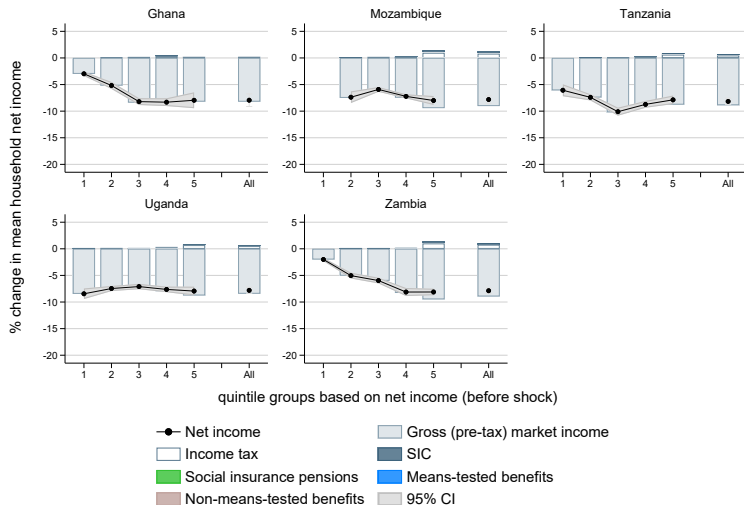
Notes: The figure shows the distributional impact of the shock. Changes in net income are broken down by income source and based on equivalised household net income.

Conclusion

- Assess effectiveness of benefit systems to respond to negative shocks in five low-/lower-middle-income countries in Sub-Saharan Africa

- Benefit system in all countries ineffective in stabilising income and consumption during crisis

- Benefit coverage higher in Ghana and Zambia and lower in Tanzania, Mozambique and Uganda

- Benefits pro-poor in Ghana, Tanzania and Zambia but overall equally distributed across households in Mozambique and Uganda

Conclusion

- Simulated shocks to earnings and employment $\rightarrow$ reduction in net income and consumption and a rise to poverty

- Benefits are not responsive to changes in person's earnings or employment because:
  - universal within a certain group e.g. children
  - linked to proxies of income, and not income itself, and/or eligibility criteria are very tight

- Designing strong benefit stabilisers important to prepare for future crises

Thank you!

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