# AFRICA MEETING OF THE ECONOMETRIC SOCIETY (AFES) 2024

Thematic: Poverty and welfare

# Identification and rural-urban decomposition of vulnerability to poverty in Togo

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## Background of the Study

- SDG 1: "Ending poverty in all its forms everywhere", specific target "increase the resilience of the poor and those in vulnerable situations"
- Poverty and vulnerability are interlinked in such a way that each causes the other
- $\bullet$  Togo overall poverty rate was 53.5% in 2016, urban 35.9% , rural 68.7%
- More than half of the population (57%) lives in rural areas (INSEED-Togo, 2022),
- Residing in rural or urban areas, Togolese households frequently experience a variety of shocks

## Background of the Study con't

#### Climate shocks effect

- 11,688 hectares of cultivated land, 300 km of roads and 11 major bridges were destroyed
- Leading to food insecurity, inflation rates rose from 1% in 2007 to 9.1% in 2008 (GFDRR,2011)

#### Health shock (Covid 19 health shocks)

- Decline in production and sales
- Roughly 62% of jobs are affected,
- 49% in the service sector and 13% in the industrial sector.
- The number of employees at retail sale and leisure sectors has declined by 30%



#### Statement of the Problem

- Despite the fact that the statistics on ex post poverty are well known in Togo, analysis that investigate the level of ex ante poverty are still lack
- Djahini-Afawoubo and Couchoro, 2020): the dynamic of non-monetary poverty; (Ametoglo and Guo, 2016; Couchoro and Dout, 2019): the decomposition of poverty over short periods; (Noglo, 207): multidimensional poverty
- (Atake 2018): poor and uninsured households are more vulnerable to poverty due to health shocks in Sub-Saharan Africa
- studies engaging household vulnerability to poverty are yet to be materialized in Togo



## **Objectives**

 Identifying and studying urban-rural disparities in vulnerability to poverty.

Calculate the monetary vulnerability to poverty index,

• Examine the determinants of vulnerability to poverty,

• Determine the rural-urban vulnerability to poverty disparities.

## Model specification

 Calculation of vulnerability to poverty: Expected poverty approach of Chaudhuri et al. (2002)

• For a given household h the vulnerability is defined as the probability of its consumption being below poverty line at time t+1:

•  $V_{ht} = P_r \left( lnc_{h,t+1} < ln\underline{c} \right)$ 



## Mode specification con't

 Rural-urban disparities analysis: Oaxaca-Blinder decomposition of Oaxaca (1973) and Blinder (1973).

• Initially, it was introduced by Oaxaca (1973) and Blinder (1973) to investigate gender wage gaps in the labor market.

 In the case of our study, we used Oaxaca-Blinder (OB) decomposition to explain what factors contributed to rural-urban disparities in vulnerability to poverty in Togo

## Estimation techniques

 Vulnerability to poverty: Feasible Generalized Least Square (FGLS) methodology in three stages, Amemiya's (1977)

 Determinants of Vulnerability to poverty: Ordinary Least Square (OLS)

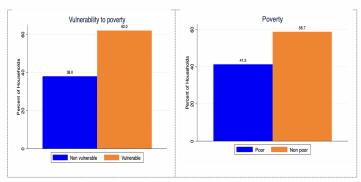
 Rural-urban disparities analysis: the detailed decomposition of Jann (2008), by computing normalized effects of Yun (2005)

#### Data

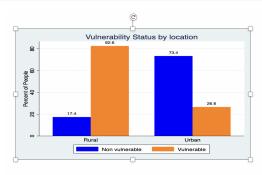
 The Harmonized Survey on Households Living Standards 2018-2019 (EHCVM 2018/19)

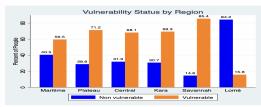
• The EHCVM is a nationally representative survey of 6,171 households 2270 from urban areas and 3901 from rural areas

 The Togo EHCVM 2018/19 covered the following topics: education, health, employment, finances (saving and credits), food security, housing, household's assets, shocks and survival strategies, agriculture



Source: authors elaboration based on Togo EHCVM 2018/19 data

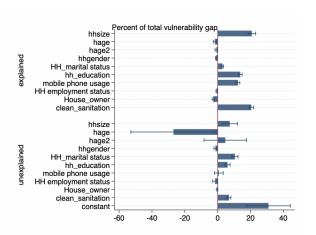




Source: authors elaboration based on Togo EHCVM 2018/19 data

- Increase the probability of being poor
  - the household size,
  - being unemployed,
  - facing a natural covariate shock .
- Decrease the probability of being poor
  - old head of Households,
  - been educated irrespective of the education level
  - head of household that have access to electricity,
  - use mobile phone and use clean sanitation.

	(1)
	Vulnerability to poverty
	b/se
overall	
group_1: Rural	0.5064***
	(0.0034)
group_2: Urban	0.2179***
	(0.0037)
difference	0.2885***
	(0.0051)
explained	0.1828***
	(0.0052)
unexplained	0.1056***
	(0.0030)
Explained %	63.36%
Unexplained %	36.60%



#### Conclusion and Discussion

- The number vulnerable households (62%) is higher than the number of currently poor households (41%).
- The rural household had a higher average vulnerability to poverty (0.51) compare to the urban households (0.22).
- Female head households are more vulnerable than male head household.
- Explanation: female head seem to be less educated, have precarious jobs hence an instable or low income which make them more vulnerable.
- Female head households may be the household in which the women are taking care of them self and others alone such as separated/divorced, widow and single mothers

#### Conclusion and Discussion

• Regarding the determinants of vulnerability to poverty, the household size affect positively and significantly vulnerability to poverty.

 This can be explained by the fact that, increasing the number of household members while holding income constant leads to a decrease in the welfare of all the members due to competition for the existing scare resources.

• Education is an important determinant of vulnerability to poverty, it reduces significantly vulnerability to poverty.

#### Conclusion and Discussion

- This phenomenon could potentially be ascribed to the premise that household heads with higher levels of education are anticipated to exhibit higher levels of expenditure on consumption.
- Individuals with a higher level of education are more likely to be resilient to changing situations and to have a better coping technique or capability
- In addition, more educated head tend to keep their household size smaller because they better understand the implication of having a larger household
- Significant disparity in vulnerability to poverty between rural and urban households.
- Size of household, education, using a mobile phone and using clean sanitation are the most contributor to the explained gap

## Policies Implications

 Develop targeted interventions aims at reducing household's poverty and vulnerability to poverty according to each region characteristics

 Include in the poverty reduction programs specific objective directed to the vulnerable proportion of the population.

 Provide training and education opportunities to the households who have lower education level

## Thank you!