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Is agriculture an engine of economic reconstruction and development in the case of the Republic of Burundi ?

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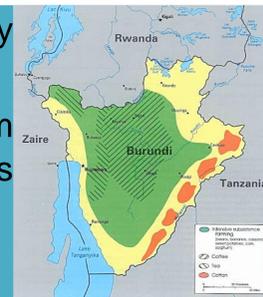
Despite its importance for the economy, the agricultural sector faces many constraints that hamper its growth.

This study used the ARDL approach to model the long-term and short-term dynamics, propose examining the agricultural sector's contribution to Burundi's economic growth.

The results of the study proved a positive and significant share of agriculture in economic development:

- In the short term, the contribution of agriculture to the country's development is more significant than in the long-term (0.66 against 0.26).
- The share of agricultural exports in economic development is essential in the long term,
- Inflation persists in the short and long term.

A range of complementary agricultural policies is needed to achieve a dynamic sector capable of supporting economic growth and transformation.



GDP share of agriculture.

Yet in Burundi, the agriculture sector is underperforming.

Introduction

Burundi is experiencing very rapid population growth, where a large proportion still live in rural areas, mainly in subsistence agriculture.

Farmers depend on agriculture for their livelihoods, which are increasingly precarious due to threats from climate change, food insecurity, financial crises, and declining investments.

Although subsistence agriculture is dominant, it is subject to several constraints which significantly reduce its performance.

The key role of agriculture

The National Development Plan has underlined the agriculture contribution of 39.6% to the entire national GDP, provides 84% of jobs, provides 95% of the food supply, and is the leading supplier of raw materials agro-industry.

Food crops mainly consist of cereals, legumes, roots and tubers, oilseeds, and bananas. To these are added the cash crops of coffee, tea, cotton, oil palm, sugar cane, and cinchona - these crops represent more than half of Burundi's exports.

Can the world feed a population of nearly 10 billion in 2050?
For people and planet, the growing population must be fed healthily, equitably and sustainably.

Emergent countries will not be able to make real progress on the path of economic expansion, poverty reduction, and greater food security if they do not value the country's agricultural sector's human resources and potential productive capacities to increase its contribution to economic and social development.

Modernizing the mechanism fleet and investing in research and development of agriculture modern knowledge must be redefined to increase the agriculture contribution on countries' expansion..

Empirical result

$$GDP_t = f(AGR_t, EXP_t, INFL_t)$$

Long-run coefficient

Dependent Variable: LGDP
Selected Model: ARDL (1,3,3,4)

VARIABLE	COEFFICIENT	STD. ERROR	T-STATISTIC	PROB.
LAGR	0.265918	0.070031	3.797136	0.0007
LEXP	0.491162	0.062796	7.821580	0.0000
LINFL	-0.008009	0.003141	-2.549702	0.0165
C	-2.180323	1.186618	-1.837426	0.0768
R ²	0.978096	F-Stat	13.95417	
R ²	0.908002	DW	2.339	

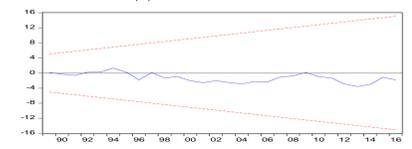
ARDL Bounds Test

Test Statistic	Value	k
F-statistic	8.597242	3
Critical Value Bounds		
Significance	I (0) Bound	I (1) Bound
10%	2.72	3.77
5%	3.23	4.35
2.5%	3.69	4.89
1%	4.29	5.61

Short-term estimation results

Dependent Variable: LGDP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LAGR)	0.660532	0.063946	10.329578	0.0000
D(LAGR(-1))	0.124140	0.082438	1.505856	0.1433
D(LAGR(-2))	0.222070	0.055375	4.010270	0.0004
D(LEXP)	0.133510	0.019446	6.865829	0.0000
D(LEXP(-1))	0.024424	0.023822	1.025275	0.3140
D(LEXP(-2))	-0.112912	0.022634	-4.988687	0.0000
D(LINFL)	-0.000364	0.000823	-0.441748	0.6621
D(LINFL(-1))	0.001339	0.000725	1.847479	0.0753
D(LINFL(-2))	0.001447	0.000747	1.938528	0.0627
D(LINFL(-3))	-0.002343	0.000696	-3.368552	0.0022
ECT(-1)	-0.439183	0.079914	-5.495699	0.0000



CUSUM stability test

The coefficient of the return force towards equilibrium $ECT(-1) = 0.439183$ is negative and significant at the 5% level..

Agriculture in economic growth is significant and positive for the long and short run.

Inflation persists in the short and long term.

Given the increasingly intense pressures on agricultural resources (demographic pressure and climatic phenomena), agricultural production should meet the food needs by creating new sustainable varieties.

Authorities need to popularize local knowledge and provide learning opportunities to make farmers expert in their production. The country needs to orient research around the development of varieties offering a better yield internally than elsewhere.

