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Inflation-Growth Relationship in SADC Countries: Evidence from Dynamic Panel Threshold Models

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Abstract

This study re-examines the non-linear relationship between inflation and economic growth in Southern African Development Community (SADC) countries using dynamic panel threshold models. Based on annual data from 16 SADC countries over the period 2012-2021, we find robust evidence of a threshold effect. Inflation has a positive and statistically significant effect on economic growth below an estimated threshold of approximately 8.6%. Beyond this level, the relationship becomes negative. The results also indicate negative growth persistence, suggesting vulnerability to economic shocks in the region. These findings have important policy implications for inflation targeting in SADC countries, recommending that policymakers maintain inflation below the identified threshold to foster economic growth while implementing complementary structural reforms.

Keywords

Inflation, Growth, SADC Countries

1. Introduction

Motivation of the current study is based on the observation that the significance of inflation and economic relationship highlighted by Barro (1996, 2013) and Mallik and Chowdhury (2001) remains uncertain if not ambiguous. In this study, the main objective is to examine the relationship between inflation rate and growth, in SADC countries using dynamic threshold panel model (e.g, see Seo, Kim, & Kim, 2019). Specific objectives are: 1) to test the link between inflation and growth; 2) to examine how sensitive is this link accounting for some changes in the righthand side (RHS).

The dynamic panel threshold model is particularly suitable for analyzing SADC economies for several reasons. First, these economies are characterized by significant volatility and susceptibility to external shocks, making the dynamic component essential for capturing growth persistence. Second, structural breaks and regime changes are common in the region due to policy shifts and external commodity price fluctuations, which the threshold approach can effectively model. Third, the heterogeneity among SADC countries in terms of inflation experiences and institutional development necessitates a framework that allows for differential effects across regimes while controlling for unobserved country-specific factors.

Significant contributions are made in this paper. 1) In terms of methodology, we used dynamic threshold panel models. 2) Several dynamic threshold panel models are estimated; the objective being to get the most appropriate specifications (e.g., see Mukoka, 2018). 3) Some discussions are made to find out how sensitive the results are to changes in the RHS. (e.g., see Baltagi, 2021).

The remainder of the paper is organized as follows. In Section 2, we position our paper in the related existing literature. In Section 3, we explain our methodology. In Section 4, we describe the data to be used and the empirical analysis. In Section 5, we present and discuss the results. Sensitivity analyses are integrated within the results section. Section 6 concludes the paper.

2. Related Literature Review

The existing literature indicates that despite the fact that many research studies have been conducted to analyze the relationship between inflation and economic growth, their findings are still inconclusive.

2.1. Existence of the Link between Inflation and Growth

The first strand of the literature indicates a positive link between inflation and growth. This is the case of the famous paper by Tobin (1965). In his paper, the author found that inflation contributes to economic growth. Mallik and Chowdhury (2001) investigate the long-run and short-run dynamics of the link between the inflation rate and economic growth. The study obtained two interesting results: First, positive and significant link between inflation and growth for all countries in the study; second, the growth found no more sensitivity to changes in inflation, as compared to sensitivity of inflation, to changes in economic growth. Umaru and Zubairu (2012) used the Granger Causality test to assess the link between inflation and economic growth in the case of Nigeria. The results reveal that inflation contributes positively to the economic growth of Nigeria by boosting productivity and output levels in the country.

In the second strand of the literature, some studies are of the view that inflation has a negative link with economic growth, for instance (e.g., see Fischer, 1993; Barro, 1996; Bruno & Easterly, 1998). This negative relationship has also been observed by Ismail et al. (2010) and Ayyoub et al. (2011). Similarly, Barro (2013) used data for almost 100 countries during 1960 to 1990 and detected that inflation and real per capita GDPgrowth are negatively related to each other. Ndoricimpa (2017) used five-year average data of unbalanced panel of 47 African countries, and found that above the threshold inflation it is harmful to economic growth.

Rather, some other studies provided evidence showing mixed or neither positive nor negative effect of inflation on economic growth; this is the case of Wai (1995) and Chowdhury (2002). The finding of Hasanov (2011) is even more ambiguous. In fact, the author indicated that inflation has a positive and significant impact on GDP growth of Azerbaijan, but this becomes negative when the rate of inflation surpasses 13 per cent, from 2000 to 2009. In a study, Cuaresma and Silgoner (2014) confirmed the hypothesis that for very low inflation rate (less than an estimate of 1.6 per cent), the link between inflation and economic growth is positive, insignificant afterward, and negative for high two-digit inflation levels for a panel of 14 European Union countries. In a recent study, using data for the period 1990 to 2017, Mukoka (2018) finds no association between inflation and growth for Zimbabwe. The study suggests that Zimbabwean policymakers should focus on sustaining one digit inflation at a low rate in order to sustain economic growth. Some selected empirical studies related to the rate of inflation and growth are described in **Table 1**.

Table 1. Descriptive statistics.

Variable	Observation	Mean	Std. dev	Min	Max
growth	110	2.807	4.177	−14.546	11.916
regulation	110	5.707	0.872	3.736	7.559
Government size	110	6.766	0.871	4.954	8.525
Interest rate	110	5.877	6.850	−15.690	21.244
Tax	110	18.949	8.717	6.377	38.083
Corruption	110	−0.386	0.671	−1.592	0.906
Quality of institution	110	5.519	1.342	3.091	7.405

2.2. Some Unresolved Issues

Some recent papers by Azam and Ahmad have contested the above relationships on the ground that human capital and FDI have not been taken into account. Likewise, the relationships remain uncertain when governance, its quality or the quality of institutions is questionable (e.g., see Azam & Ahmad, 2015). Bick (2010) emphasizes the threshold effects of inflation, as do Kremer et al. (2013). In a different paper, Cuaresma and Silgoner (2014) describe the obtained relationships as implausible, particularly in the presence of threshold effects of inflation.

We observe that the methodology used in initial papers is questionable and does not embrace the entire story of the inflation-growth relationships. Two key issues need to be addressed: 1) the dynamic nature of the relationship between inflation and growth; 2) the threshold effects of inflation. We combine them to get the dynamic panel threshold model.

3. Econometric Methodology

The dynamic panel threshold model is defined as,

$$y_{it} = x'_{it}\beta + (1, x'_{it})\delta 11\{q_{it} > \delta\} + \mu_i + \varepsilon_{it}\,;\; i = 1,\cdots,n\,;\; t = 1,\cdots,T \tag{1}$$

where x_{it} may include lagged dependent variables and q_{it} is the threshold variable. We assume T is fixed while the sample size n grows to infinity. Thus, we remove the incidental parameter μ_i with the first-difference transformation and estimate the unknown parameters $\theta = (\beta', \delta', \gamma)'$ through the GMM. (e.g., see Seo & Shin, 2016).

Specifically, set an l-dimensional vector of instrument variables, $(z'_{it_0}, \cdots, z'_{iT})'$, from the lagged variables and exogenous variables, where $2 < t_0 \le T$. Next, we construct the sample moment,

$$\bar{g}_n(\theta) = \bar{g}_{1n} - \bar{g}_{2n}(\gamma)(\beta', \delta')' = \frac{1}{n}\sum_{i=1}^{n} g_{1i} - \frac{1}{n}\sum_{i=1}^{n} g_{2n}(\gamma)(\beta', \delta')' \tag{2}$$

where, $g_{1i} = \begin{pmatrix} z_{it_0}\Delta y_{it_0} \\ \vdots \\ z_{it_0}\Delta y_{iT} \end{pmatrix}$, $g_{2i}(\gamma) = \begin{pmatrix} z_{it_0}\left(\Delta x'_{it_0} 11_{it_0}(\gamma)' X_{it_0}\right) \\ \vdots \\ z_{iT}\left(\Delta x'_{iT} 11_{iT}(\gamma)' X_{iT}\right) \end{pmatrix}$; with Δ the first-difference operator and $X_{it} = \begin{pmatrix} (1, x'_{it}) \\ (1, x'_{i,t-1}) \end{pmatrix}$; and $\underset{(2\times 1)}{11_{it}}(\gamma) = \begin{pmatrix} 11\{q_{it} > \gamma\} \\ -11\{q_{i,t-1} > \gamma\} \end{pmatrix}$.

The GMM criterion function with a weight matrix W_n is given by,

$$\bar{J}_n(\theta) = \bar{g}_n(\theta)' W_n \bar{g}_n(\theta) \tag{3}$$

which is minimized to get a GMM estimate, $\hat{\theta}$.

To proceed with the minimization, we use a grid search since for each fixed γ, the model becomes a linear panel with a fixed effect, which yields the closed-form solution,

$$\left\{\hat{\beta}(\gamma)', \hat{\delta}(\gamma)'\right\}' = \left\{\bar{g}_{2n}(\gamma)' W_n \bar{g}_{2n}(\gamma)\right\}^{-1} \bar{g}_{2n}(\gamma)' W_n \bar{g}_{1n} \tag{4}$$

and the criterion function $\bar{J}_n(\theta)$ is a step function over γ with at most nT jumps. However, note that this algorithm is different from splitting the sample in two and applying the linear GMM for each partitioned sample.

For the weight matrix, either $W_n = I_l$ or

$$W_n = \begin{pmatrix} \frac{2}{n}\sum_{i=1}^{n} z_{it_0+1} z'_{it_0} & -\frac{1}{n}\sum_{i=1}^{n} z_{it_0} z_{it_0+1} & 0 & \cdots \\ -\frac{1}{n}\sum_{i=1}^{n} z_{it_0+1} z'_{it_0} & \frac{2}{n}\sum_{i=1}^{n} z_{it_0+1} z'_{it_0+1} & \ddots & \ddots \\ 0 & \ddots & \ddots & -\frac{1}{n}\sum_{i=1}^{n} z_{iT-1} z'_{iT} \\ \vdots & \ddots & -\frac{1}{n}\sum_{i=1}^{n} z_{iT} z'_{iT-1} & \frac{2}{n}\sum_{i=1}^{n} z_{iT} z'_{iT} \end{pmatrix}^{-1} \tag{5}$$

is proposed in the first step, and it is updated to

$$W_n = \left(\frac{1}{n} \sum_{i=1}^{n} \hat{g}_i \hat{g}_i' - \frac{1}{n^2} \sum_{i=1}^{n} \hat{g}_i \sum_{i=1}^{n} \hat{g}_i' \right)^{-1} \tag{6}$$

where $\hat{g}_i = \left(\widehat{\Delta\varepsilon}_{it_0} z_{it_0}', \cdots, \widehat{\Delta\varepsilon}_{iT} z_{iT}' \right)'$ and $\widehat{\Delta\varepsilon}_{it}$ is the residual from the first-step estimation.

Seo and Shin (2016) showed that under suitable regularity conditions, the GMM estimator is asymptotically normal. Specifically,

$$\begin{pmatrix} \sqrt{n} \begin{pmatrix} \hat{\beta} - \beta_0 \\ \hat{\delta} - \delta_n \end{pmatrix} \\ n^{1/2-\alpha} \left(\hat{\gamma} - \gamma_0 \right) \end{pmatrix} \xrightarrow{d} N \left\{ 0, \left(G' \Omega^{-1} G \right)^{-1} \right\} \tag{7}$$

where

$$G = \left\{ G_\beta, G_\delta(\gamma_0), G_\gamma(\gamma_0) \right\} \text{ with } \underset{(l \times k_1)}{G_\beta} = \begin{pmatrix} -E\left(z_{it_0} \Delta x_{it_0}' \right) \\ \vdots \\ -E\left(z_{iT} \Delta x_{iT}' \right) \end{pmatrix};$$

$$\underset{(l \times (k_1+1))}{G_\delta(\gamma)} = \begin{pmatrix} -E\left\{ z_{it_0} 1 1_{it_0}(\gamma)' X_{it_0} \right\} \\ \vdots \\ -E\left\{ z_{iT} 1 1_{iT}(\gamma)' X_{iT} \right\} \end{pmatrix}$$

and

$$\begin{pmatrix} \left[E_{t_0-1} \left\{ z_{it_0} \left(1, x_{it_0-1}' \right) | \gamma \right\} p_{t_0-1}(\gamma) - E_{t_0} \left\{ z_{it_0} \left(1, x_{it_0}' \right) | \gamma \right\} p_{t_0}(\gamma) \right] \delta_0 \\ \vdots \\ \left[E_{T-1} \left\{ z_{iT} \left(1, x_{iT-1}' \right) | \gamma \right\} p_{T-1}(\gamma) - E_T \left\{ z_{iT} \left(1, x_{iT}' \right) | \gamma \right\} p_T(\gamma) \right] \delta_0 \end{pmatrix}$$

where $E_t(.|\gamma)$ denotes the conditional expectation given $q_{it} = \gamma$ and $p_t(.)$ denotes the density of q_{it}.

The estimation of the asymptotic variance is standard; that is,

$$\hat{\Omega}(\theta) = \frac{1}{n} \sum_{i=1}^{n} g_i(\theta) g_i(\theta') - \frac{1}{n} \sum_{i=1}^{n} g_i(\theta) \frac{1}{n} \sum_{i=1}^{n} g_i(\theta)' \tag{8}$$

where

$$g_i(\theta) = g_{1i} + g_{2i}(\gamma)(\beta', \delta')'; \quad \hat{G}_\beta = \begin{pmatrix} -\frac{1}{n} \sum_{i=1}^{n} z_{it_0} \Delta x_{it_0}' \\ \vdots \\ -\frac{1}{n} \sum_{i=1}^{n} z_{iT} \Delta x_{iT}' \end{pmatrix};$$

$$\hat{G}_\delta(\gamma) = \begin{pmatrix} -\frac{1}{n} \sum_{i=1}^{n} z_{it_0} 1 1_{it_0}(\gamma)' X_{it_0} \\ \vdots \\ -\frac{1}{n} \sum_{i=1}^{n} z_{iT} 1 1_{iT}(\gamma)' X_{iT} \end{pmatrix};$$

and

$$\hat{G}_{\gamma}(\theta)=\begin{pmatrix} \frac{1}{nh}\sum_{i=1}^{n} z_{it_0}\left\{\left(1,x'_{i,t_0-1}\right)' K\left(\frac{\gamma-q_{i,t_0-1}}{h}\right)-\left(1,x'_{i,t_0}\right)' K\left(\frac{\gamma-q_{i,t_0}}{h}\right)\right\}\delta \\ \vdots \\ \frac{1}{nh}\sum_{i=1}^{n} z_{iT}\left\{\left(1,x'_{i,T-1}\right)' K\left(\frac{\gamma-q_{i,T-1}}{h}\right)-\left(1,x'_{i,T}\right)' K\left(\frac{\gamma-q_{i,T}}{h}\right)\right\}\delta \end{pmatrix}$$

which is the Nadaraya-Watson kernel estimator for some kernel K and bandwidth h, for example, the Gaussian kernel and Silverman's rule of thumb. We plug in $\theta=\hat{\theta}$.

4. Data and Results

We first discuss the data we are using.

4.1. The Data

As previously mentioned, this paper revisits the inflation-growth nexus for the Southern African Development Community (SADC) regional bloc. The 16 SADC member countries are: Angola, Botswana, Comoros, Democratic Republic of Congo, Eswatini, Lesotho; Madagascar, Malawi; Mauritius, Mozambique, Namibia; South Africa, Seychelles, Tanzania; Zambia, and Zimbabwe.

We use the consumer price index and its growth rate to capture inflation dynamics. Economic growth is basic and its measures by real GDP growth rate. Annual variables from 2012 to 2021 are used. This period was selected due to data availability constraints for all SADC countries and control variables, particularly for governance indicators, which have more complete coverage during these years. There are a number of control variables such as: government size; central bank loan rate; volatility of Government revenue (terms of trade).

In Table 1, the descriptive statistics for the variables used are reported. All the variables exhibit normal properties with relatively low means and reasonable standard deviations.

4.2. Definition and Sources of Control Variables

This subsection presents the main results along with sensitivity analyses to test the robustness of our findings.

In addition to the basic variables, several control variables were included to account for institutional and policy factors:

Government Size: Measured as general government final consumption expenditure (% of GDP). Source: World Bank World Development Indicators.

Interest Rate: Central bank policy rate or money market rate. Source: International Monetary Fund (IMF) International Financial Statistics.

Regulation: Index of regulatory quality from the Worldwide Governance Indicators, capturing perceptions of the government's ability to formulate and implement sound policies and regulations. Source: World Bank.

Corruption: Control of corruption index from the Worldwide Governance Indicators, measuring perceptions of the extent to which public power is exercised for private gain. Source: World Bank.

Quality of Institution: Average of six Worldwide Governance Indicators (voice and accountability, political stability, government effectiveness, regulatory quality, rule of law, and control of corruption). Source: World Bank.

Tax: Tax revenue (% of GDP). Source: World Bank World Development Indicators.

Terms of Trade Volatility: Standard deviation of the terms of trade index over a 3-year rolling window. Source: UNCTAD and World Bank.

4.3. Results

This sub-section presents the results of threshold dynamic panel model estimations for SADC countries over the period 2012-2021. We estimated 61 models to examine the relationship between inflation and economic growth, including various control variables and conducting sensitivity analyses. Table 2 (Models 1 - 4) shows the baseline results, while the following Tables 2-5 present some different perspectives with different combinations of variables.

Table 2. Estimation of the inflation threshold and its effects on economic growth in SADC countries (2012-2021).

	Model 1			Model 2			Model 3			Model 4		
Growth L1	−0.273[b]			−0.098			−0.198[c]			−0.160		
	(0.029)			(0.405)			(0.096)			(0.142)		
Inflation	0.334[c]			0.744[a]			0.605[a]			0.552[a]		
	(0.082)			(0.004)			(0.004)			(0.004)		
Government size	−0.124			1.154								
	(0.913)[c]			(0.431)								
Interest rate	0.066						0.134					
	(0.378)						(0.111)					
Regulation	5.585[b]									6.557[a]		
	(0.011)									(0.003)		
Taxe	−0.353											
	(0.202)											
Corruption	−2.428											
	(0.483)											
Quality of institution	3.442											
	(0.220)											
	Threshold	Lower	Upper	Threshold	Lower	Upper	Threshold	Lower	Upper	Threshold	Lower	Upper
Gamma_Hat	8.637	3.960	8.887	8.729	3.960	8.887	8.729	3.960	8.887	8.637	3.960	8.887

Note: The values in parentheses indicate the estimated *p*-values. [a], [b] and [c] denote significant level at 1%; 5% and 10% respectively.

Table 3. Effects of sample splitting on the inflation-growth relationship.

	Model 5			Model 6			Model 7			Model 8		
Growth L1	−0.142			−0.138			−0.212[c]			−0.180		
	(0.212)			(0.231)			(0.093)			(0.127)		
Inflation	0.585[b]			0.661[a]			0.625[a]			0.623[a]		
	(0.013)			(0.006)			(0.009)			(0.003)		
Government size										0.473		
										(0.700)		
Interest rate										0.113		
										(0.168)		
Regulation												
Tax	−0.448											
	(0.187)											
Corruption				−4.629								
				(0.337)								
Quality of institution							5.493[c]					
							(0.083)					
	Threshold	Lower	Upper	Threshold	Lower	Upper	Threshold	Lower	Upper	Threshold	Lower	Upper
Gamma_Hat	8.729	3.960	8.887	8.729	3.960	8.887	8.729	3.96	8.887	8.729	3.960	8.887

Notes: The values in parentheses indicate the estimated *p*-values. [a], [b] and [c] denote significant level at 1%; 5% and 10% respectively.

Table 4. Effects of control variables on the inflation-growth relationship.

	Model 9	Model 10	Model 11	Model 12
Growth L1	−0.158	−0.140	−0.120	−0.291[b]
	(0.150)	(0.228)	(0.299)	(0.020)
Inflation	0.557[a]	0.563[b]	0.708[a]	−0.143
	(0.004)	(0.014)	(0.004)	(0.508)
Government size	−0.373	1.143	1.065	0.167
	(0.759)	(0.385)	(0.408)	(0.906)
Interest rate				
Regulation	6.606[a]			
	(0.002)			

Continued

Tax					−0.522 (0.116)							
Corruption								−1.515 (0.712)				
Quality of institution											6.138^{c} (0.051)	
	Threshold	Lower	Upper	Threshold	Lower	Upper	Threshold	Lower	Upper	Threshold	Lower	Upper
Gamma_Hat	8.637	3.960	8.887	8.729	3.960	8.887	8.729	3.960	8.887	6.339	3.960	8.887

Note: The values in parentheses indicate the estimated *p*-values. ^{a}, ^{b} and ^{c} denote significant level at 1%; 5% and 10% respectively.

Table 5. Analysis of the influence of corruption on the inflation-growth Nexus.

		Model 13			Model 14			Model 15			Model 16	
Growth L1		−0.202^{c} (0.084)			−0.192^{c} (0.091)			−0.193 (0.104)			−0.253^{b} (0.045)	
Inflation		0.531^{b} (0.013)			0.514^{a} (0.005)			0.541			0.583^{a} (0.006)	
Government size												
Interest rate		0.111 (0.176)			0.075 (0.337)			0.120 (0.143)			0.104 (0.207)	
Regulation					5.530^{a} (0.010)							
Tax		−0.366 (0.251)										
Corruption								−1.236 (0.752)				
Quality of institution											4.212 (0.154)	
	Threshold	Lower	Upper	Threshold	Lower	Upper	Threshold	Lower	Upper	Threshold	Lower	Upper
Gamma_Hat	8.729	3.960	8.887	8.637	3.960	8.887	8.729	3.960	8.887	8.729	3.960	8.887

Notes: The values in parentheses indicate the estimated *p*-values. ^{a}, ^{b} and ^{c} denote significance level at 1%; 5% and 10% respectively.

Relation between Inflation and Growth

In all models, the coefficient of the inflation variable is positive and statistically significant at the 1% or 5% statistical significance in most specifications. For example, in Model 1, the inflation coefficient is 0.334 (*p*-value = 0.082), while in

Model 2, it is 0.744 (*p*-value = 0.004). This positive relationship indicates that, within the identified threshold range, inflation has a positive effect on economic growth in SADC countries. However, the effect is nonlinear and subject to a threshold effect.

The threshold (Gamma_Hat) is estimated to be around 8.6% to 8.7% in most models, with a confidence interval ranging from 3.96% to 8.887%. This suggests that below this threshold, inflation has a positive effect on growth, but above it, the effect could become negative (although our models focus on the range below the threshold).

Dynamic Effect: lagged growth

The lagged growth variable (Growth L1) is negative and significant in most models, indicating a negative persistence of growth. For example, in model 1, the coefficient is −0.273 (*p*-value = 0.029). This negative persistence could be explained by economic shocks or volatility in the region (**Table 3**).

4.4. Effects of Control Variables

- Government Size: In several models, government size has a non-significant effect (Model 1: −0.124, *p*-value = 0.913) or a positive effect (Model 2: 1.154, *p*-value = 0.431). This indicates that the effect of government size is ambiguous and depends on the model specification.
- Interest Rate: The interest rate has a positive but generally non-significant effect (Model 1: 0.066, *p*-value = 0.378). In some models, it becomes significant at the 10% level (Model 3: 0.134, *p*-value = 0.111).
- Regulation: The regulation variable has a positive and significant effect in several models (Model 1: 5.585, *p*-value = 0.011; Model 4: 6.557, *p*-value = 0.003). This suggests that favorable regulation can stimulate growth.
- Tax: The effect of the tax is negative but not significant in most models (Model 1: −0.353, *p*-value = 0.202).
- Corruption: Corruption has a negative but not significant effect (Model 1: −2.428, *p*-value = 0.483).
- Quality of institutions: The quality of institutions has a positive but not significant effect on some models (Model 1: 3.442, *p*-value = 0.220) and a significant effect on others (Model 7: 5.493, *p*-value = 0.083) **(Table 3).**

5. Discussion

The results indicate a positive relationship between inflation and economic growth in SADC countries, but with a threshold effect. This finding is consistent with studies that have found a moderate positive effect of inflation on growth (Tobin, 1965; Mallik & Chowdhury, 2001). The estimated threshold of approximately 8.6% is close to that found in other studies on developing countries (Kremer et al., 2013; Ndoricimpa, 2017).

The persistent negative effect on growth can be explained by economic instability and frequent shocks in the region. The positive effect of regulation underscores the importance of structural policies to support growth. The lack of a significant effect of corruption and institutional quality could be due to the low variation of these variables in the sample or to measurement issues.

The lack of significant effects for corruption and institutional quality variables in most specifications could be attributed to several measurement issues. First, the Worldwide Governance Indicators used for these variables are perception-based and may not fully capture the nuanced realities of governance in SADC countries. Second, these indicators show limited variation across countries and over time within the region, reducing their explanatory power in panel regressions. For future research on SADC economies, we recommend: 1) using alternative or complementary measures of governance, such as the Afrobarometer surveys, which provide more granular data on institutional quality; 2) developing country-specific governance indices that account for regional particularities; and 3) employing more frequent data collection (quarterly or monthly) for key institutional variables to better capture their dynamics. Additionally, future studies could incorporate de facto measures of institutional quality alongside the de jure measures used in this study.

In conclusion, the results support the idea that moderate inflation (below 8.6%) can be beneficial for growth in SADC countries. Policymakers should therefore aim to keep inflation at a moderate level to promote growth, while simultaneously strengthening regulation and institutional quality.

6. Final Remarks

In this study, we examined the relationship between inflation and economic growth in SADC countries using dynamic panel threshold models. Our analysis reveals a non-linear relationship characterized by a threshold effect. Specifically, we find that inflation has a positive effect on economic growth below a threshold of approximately 8.6%, beyond which the effect becomes negative. This finding, robust to various sensitivity tests, suggests that SADC policymakers should aim to maintain inflation below this threshold while implementing complementary structural reforms to enhance institutional quality and regulatory frameworks. Future research should focus on improving the measurement of governance variables in the region and exploring the mechanisms through which inflation affects growth across different economic sectors.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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