Do Price Dynamics Undermine Food Security in Nigeria?

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Abstract
This study investigates the long-run effects of price dynamics on food security in Nigeria. Drawing on annual data from 2002 to 2022, it employs a Dynamic Ordinary Least Squares (DOLS) model to assess how macroeconomic indicators, specifically the consumer price index (CPI), GDP per capita, labour force participation, population, and institutional quality, affect a composite Food Security Index (FSI). The results reveal a significant positive relationship between CPI and food security, suggesting that moderate inflation may reflect supply-side responses or sectoral growth. The results also reveal that GDP per capita and labour force participation both exhibit strong positive effects, highlighting the role of income and employment in enhancing food access. In contrast, institutional quality shows a significant negative association with food security, challenging theoretical expectations and pointing to governance implementation gaps despite apparent institutional improvements. Policy recommendations include investments in domestic food production, supply chain logistics, and inflation-indexed safety nets, particularly for vulnerable populations.

Keywords: Food Security, Price Dynamics, Inflation, Institutional Quality, Macroeconomic Policy, Consumer Price Index

***JEL Classification*:** Q18, E31, H11

Introduction
Food security remains a significant public policy challenge in Nigeria, a country endowed with over 70 million hectares of agricultural land and a predominantly young, agrarian population (Akano et al., 2023; Tersoo, 2013). Despite this potential, Nigeria remains one of the most food-insecure nations globally, consistently ranking poorly on international food security indices. The Global Hunger Index (2024) ranks Nigeria 110th out of 127 countries, reflecting high levels of undernourishment, child wasting, and food supply instability. The Food and Agriculture Organisation defines food security as the state in which "all people, at all times, have physical, social, and economic access to sufficient, safe

and nutritious food." Food security encompasses not just food availability, but also access, utilisation, and stability (FAO 2024). In Nigeria, these dimensions are increasingly undermined by a range of economic and structural factors, mostly price volatility, weak governance institutions, and economic instability (Ayadi & Jeremiah, 2016; Ukamaka et al., 2023).

Rising price dynamics, driven by inflationary pressures and consumer price volatility, have become a central threat to food security in Nigeria. From 9.9 per cent in December 2015, food inflation rose steadily to 16.17 per cent by December 2020, and further accelerated to 37.03 per cent by December 2024, reflecting deepening macroeconomic distortions and food supply constraints (CBN, 2025). This surge has been primarily driven by exchange rate volatility, insecurity in agricultural zones, fuel subsidy removal, and logistics disruptions, all of which distort supply chains and inflate food prices. As Falana et al. (2024) demonstrate, exchange rate instability significantly intensifies food price inflation in Nigeria, directly undermining household food access. Similarly, Fasanya & Olawepo (2018) identify macroeconomic shocks, including oil price fluctuations and lending rates, as crucial determinants of food price volatility. According to the National Bureau of Statistics (2020), "Nigerian households spent 56.65 per cent of their total consumption expenditure on food in 2019," the highest share among expenditure categories. This high proportion highlights how even modest increases in food prices can significantly erode household welfare. Consequently, rising inflation directly constrains food access, reduces dietary diversity, and heightens vulnerability to hunger, especially among poor and middle-income households that depend heavily on market-purchased staples.

Beyond the immediate impacts of inflation, the broader institutional environment in Nigeria plays a critical role in shaping the extent to which price shocks are transmitted to households and whether appropriate policy responses are deployed. Institutional quality, defined by metrics such as regulatory effectiveness, government responsiveness, rule of law, and control of corruption (Uddin et al., 2023), determines the capacity of the state to stabilise markets, enforce standards, manage subsidies, and ensure the equitable distribution of food resources (Osabohien et al., 2019). Unfortunately, Nigeria's governance landscape is characterised by persistent institutional fragility. The World Governance Indicators (2023) place Nigeria in the lowest quartile globally across key governance dimensions, including government effectiveness, political stability, and regulatory quality. These deficits in public sector performance reduce the resilience of food systems, limit the effectiveness of interventions such as price

controls or food assistance, and heighten the impacts of economic shocks on vulnerable populations (Bizikova et al., 2022).

Given the critical intersection of price dynamics and institutional quality in shaping food security outcomes, this study is guided by two central research questions: (1) What is the effect of price dynamics, as measured by changes in the Consumer Price Index (CPI), on food security in Nigeria? (2) Does government effectiveness, as a proxy for institutional quality, moderate this relationship? These questions are addressed within a dynamic framework using time-series data from 2002 to 2022. The study constructs a Food Security Index (FSI) using Principal Component Analysis (PCA) based on eight nationally available indicators representing the four food security pillars. This composite index serves as the dependent variable, capturing multidimensional food security trends at the macroeconomic level.

The remainder of this paper is organised as follows. Section 2 reviews relevant theoretical and empirical literature, including classical theories on food supply, price volatility, and institutional economics. Section 3 describes the methodology, including data sources, variable definitions, and the DOLS model specification. Section 4 presents the empirical findings and discusses their implications, with attention to the moderating role of institutional quality. Section 5 concludes the paper with a summary of key findings and policy recommendations for enhancing food system resilience in Nigeria.

Literature Review

The relationship between food security and inflation is rooted in historical theories of political economy and classical development thought. One of the earliest conceptualisations can be traced to the Malthusian theory, which warned that population growth would eventually outstrip food production, leading to scarcity and hunger unless checked by natural or man-made mechanisms (Gahamanyi & Tchouassi, 2025). While this perspective emphasised biological and demographic limits, later critics like Sen (1981) shifted the debate toward *entitlement theory*, arguing that food insecurity is less about availability and more about access, shaped by individuals' command over resources such as income, employment, and land. This framework remains central to understanding hunger in modern economies, especially those where food is plentiful, yet access is unequal.

The entitlement approach ties closely with structuralist and human rights-based theories that frame food insecurity as a failure of political and institutional systems rather than natural scarcity. The WFP and FAO (2021) build on this, highlighting that hunger in many African contexts arises from governance deficits, policy neglect, and entrenched inequalities rather than pure food shortage. Structuralist theory, in particular, highlights how economic systems in the Global South are characterised by production bottlenecks, weak infrastructure, and dependency on external markets, all of which create persistent inflationary pressures and erode household food security (Olorunmola et al., 2024). These perspectives foreground food insecurity as both a developmental and human rights crisis, necessitating structural transformation rather than temporary aid or market fixes.

Inflation itself has been extensively theorised within both monetarist and structuralist schools. The monetarist view, led by Friedman (1968), posits that inflation results primarily from excessive money supply, especially in contexts where fiscal discipline is weak and central banks are pressured to finance deficits. This perspective remains influential in Nigerian macroeconomic discourse (Okonkwo et al., 2023). However, structuralists argue that inflation in developing economies often stems from real sector constraints such as poor logistics, volatile energy costs, and underperforming agriculture, which drive up production and distribution costs, particularly for food (Olorunmola et al., 2024). These supply-side explanations are especially relevant in Nigeria, where imported inflation, currency devaluation, and infrastructural deficits compound the impact of global commodity price shocks.

At the microeconomic level, consumer choice theory and the utility maximisation framework offer insights into how inflation affects food access and household welfare. Rising food prices force households to reallocate spending, often sacrificing dietary quality or reducing meal frequency (Olayiwola et al., 2023). This aligns with the basic need theory, which views food as a foundational requirement for survival and social functioning (Omobowale et al., 2023). When inflation compromises this access, it not only diminishes individual well-being but also threatens public health and social cohesion. Human security theory expands this lens further by framing food security as integral to broader societal stability, especially in fragile contexts where economic shocks can trigger unrest and displacement (Gazdar & Mallah, 2013).

These theoretical perspectives establish a rich foundation for understanding how inflation and price volatility intersect with food security. They highlight that food insecurity in inflation-prone economies like Nigeria cannot be understood through economic indicators alone but must also be situated within broader social, political, and institutional contexts. Building on these conceptual frameworks, the next section turns to empirical studies that test these relationships across different contexts, including economies, different variables, and methods

Empirical research on inflation and food security has taken varied methodological approaches to test the theoretical claims that price instability diminishes household welfare and national food systems. Many studies begin by exploring the macroeconomic dynamics of inflation's impact on food availability and affordability. For instance, Gahamanyi and Tchouassi (2025), using a two-step System-GMM estimator across 32 African countries, found that inflation significantly undermines food security, though the relationship becomes nonlinear at high inflation thresholds. Their study aligns with findings from Adeyemi-Tijani (2024), who applied the ARDL model in the Nigerian context and observed a statistically weak direct link between inflation and food insecurity but identified currency depreciation as a stronger driver of rising food prices. Similar long-run relationships were observed by Olorunmola et al. (2024), whose VECM analysis showed that structural factors like production costs and exchange rate volatility are key inflationary pressures shaping food price dynamics. These studies demonstrate the view that macroeconomic instability, particularly via exchange rate movements and input cost inflation, amplifies food insecurity even when the direct role of headline inflation appears ambiguous.

At the household and community level, other studies offer grounded evidence on how inflation disrupts everyday welfare and food consumption. Olayiwola et al. (2023) surveyed households in Oyo State, Nigeria, and found that rising food prices significantly reduced real income and dietary quality, prompting coping strategies like meal skipping and food substitution. This is shown in the findings of Omobowale et al. (2023), who, through field interviews and focus groups, documented how poor households in Nigerian communities' experience worsening nutrition, mental stress, and vulnerability as food inflation erodes purchasing power. Gazdar and Mallah (2013) similarly revealed in Pakistan that households rely heavily on informal coping mechanisms, such as gleaning, labour exchanges, or charity, to survive price shocks, often reducing dietary diversity and resorting to asset sales. These micro-level accounts demonstrate that the impact of

inflation on food security is not merely economic but deeply social, affecting health, stress levels, and household cohesion, especially among the poor with limited safety nets.

Beyond national borders, scholars have examined how global food price shocks are transmitted into domestic inflation and affect food security outcomes, particularly in import-dependent countries. Espinoza et al. (2024), analysing 33 Sub-Saharan African countries, showed that international price surges quickly drive up domestic food inflation, particularly in countries with weak currencies and shallow fiscal buffers. The transmission of external shocks is not limited to Africa. Roy and Rahman (2022) demonstrated that Indian food inflation has a significant impact on food prices and consumption patterns in Bangladesh, confirming a one-way price transmission effect driven by trade dependence. Okpe and Ikpesu (2021) also contribute to this line of inquiry, showing that in Nigeria, inflation boosts food imports while depressing food exports, undercutting local production and worsening trade imbalances. These studies highlight that inflation-induced food insecurity in low-income countries is often shaped not just by internal policy or supply issues, but by exposure to global commodity markets and regional trade asymmetries.

Monetary dynamics and inflation's role within broader macroeconomic structures have also been investigated. Omoke (2010), through co-integration and error correction modelling, found that food prices play a central role in driving headline inflation in Nigeria, and argued that monetary policy alone cannot address these pressures without addressing agricultural and structural deficits. Eslami & Baghestany (2020), working with Iranian data, used a Bivariate GARCH model and found that inflation uncertainty, rather than inflation levels can influence agricultural output, indicating that volatility in price expectations shapes production decisions. Meanwhile, Okodua & Ogbokor (2023) showed that inflation and exchange rate instability reduce household consumption in Nigeria, confirming that macro-level price shocks translate into tangible welfare losses. These studies show that managing inflation in food systems requires coordinated macroeconomic and sectoral responses, not just interest rate adjustments.

These empirical studies confirm that the relationship between inflation and food security is deeply context-specific, shaped by macroeconomic policies, external vulnerabilities, and household-level realities. Some studies offer strong evidence of causal effects; others highlight the importance of structural conditions, such as exchange rate regimes, institutional capacity, and local production systems, that

mediate the impact of inflation on food access and welfare. However, a key limitation across much of the existing literature is the lack of integrated analysis that directly links national price dynamics, governance quality, and food security in a unified framework. Although some cross-country studies incorporate institutional factors, few Nigeria-specific analyses adopt an approach that captures how institutional quality moderates the inflation-food security relationship. This gap presents an opportunity for further investigation, particularly in contexts like Nigeria, where institutional fragility and price volatility frequently intersect.

Research Methodology

To investigate the long-run effects of macroeconomic variables on food security in Nigeria, this study employs the Dynamic Ordinary Least Squares (DOLS) estimation technique. The choice of DOLS is motivated by the need to correct for possible endogeneity and serial correlation among regressors when some variables are integrated of order one but cointegrated with the dependent variable. Unlike standard OLS, the DOLS framework incorporates leads and lags of the differenced regressors to ensure the consistency and efficiency of the long-run parameter estimates.

Following Stock and Watson (1993) and Raifu, Oshota & Ojo (2025), the long-run relationship between food security and selected macroeconomic variables is specified in the DOLS framework as:

$$FSI_t = \beta_0 + \beta_1 \cdot \log(CPI_t) + \beta_2 \cdot \log(Pop_t) + \beta_3 \cdot \log(GDP_t) + \beta_4 \cdot InstQual_t + \beta_5 \cdot LabourForce_t + \sum_j \delta_j \cdot \Delta X_{t+j} + \varepsilon_t \quad (1)$$

Where FSI_t is Food Security Index, $\log(CPI_t)$ is Log of Consumer Price Index, $\log(Pop_t)$ is Log of Population, $\log(GDP_t)$ is Log of GDP per capita, $InstQual_t$ is Institutional Quality, $LabourForce_t$ is Labour Force Participation Rate, X_t are Vector of all independent variables, X_{t+j} are Leads and lags of the first differences of regressors and ε_t is Error term. The inclusion of differenced terms (X_{t+j}) is key to ensuring that short-run fluctuations do not bias the estimates of long-run coefficients.

This study utilises annual time series data spanning the period from 2002 to 2022[1] The dependent variable, the Food Security Index (FSI), was constructed using eight indicators aligned with the four pillars of food security: availability, access, utilisation, and stability. For availability, two indicators were used: *Average dietary energy supply adequacy (per cent, 3-year average)* and *Cereal import dependency ratio (per cent)*. The access dimension includes the *Prevalence of undernourishment (per cent, 3-year average)* and the *Value of food imports in total merchandise exports (per cent, 3-year average)*. For utilisation, the study employed the *Percentage of children under five years who are stunted* and the *Percentage of the population using at least basic sanitation services*. The stability dimension was captured by the *Prevalence of severe food insecurity in the total population (3-year average)* and *per capita food supply variability (per cent, 3-year average)*.

Macroeconomic indicators - Consumer Price Index (CPI), Gross Domestic Product (GDP) per capita, and total population- were obtained from the National Bureau of Statistics (NBS). Data on labour force participation rate (% of the total population) were sourced from the International Labour Organization (ILO) through its Labour Force Statistics (LFS) database. In addition, six indicators of institutional quality, namely *Voice and Accountability*, *Control of Corruption*, *Rule of Law*, *Regulatory Quality*, *Government Effectiveness*, and *Political Stability,* were extracted from the Worldwide Governance Indicators (WGI) database maintained by the World Bank. These institutional variables are used both individually and in composite form to capture the quality of governance and its potential moderating role in the relationship between price dynamics and food security.

The DOLS model is estimated using the *dynlm* package in R, with one lead and one lag of each first-differenced regressor. This corrects for endogeneity that might arise from feedback effects and ensures valid inference of long-run coefficients. The stationarity properties of each variable were assessed using the Augmented Dickey-Fuller (ADF) test. The results confirmed that the variables are either I(0) or I(1), validating the use of DOLS for cointegrated variables. The next section presents the regression results and interprets the implications of each estimated coefficient in relation to the study objectives.

[1] Food security data (used to compute the FSI) for Nigeria is only available from 2002. Data available here: https://www.fao.org/faostat/en/#data/FS

Presentation and Analysis of Results

Table 1 presents the descriptive statistics of the variables included in the model. The Food Security Index ranges from 0.00 to 1.00, indicating varying levels of access and availability across the time frame. The mean values of the log-transformed CPI, population, and GDP are within reasonable bounds, while institutional quality averages around 0.59, suggesting moderate governance conditions. Labour force participation rates average 81.7% with low variability.

These statistics indicate relatively stable macroeconomic indicators over the observed period, though there is noticeable variation in CPI and institutional quality, which are expected to influence food security outcomes.

Table 1: Descriptive Statistics

Variable	Min	1st Qu.	Median	Mean	3rd Qu.	Max
Food Security Index (FSI)	0.000	0.150	0.370	0.410	0.650	1.000
Log of CPI	1.686	2.380	2.526	2.491	2.708	2.934
Log of Population	4.894	5.032	5.172	5.168	5.300	5.429
Log of GDP per capita	7.405	7.611	7.771	7.705	7.796	7.858
Institutional Quality	0.000	0.530	0.590	0.591	0.840	1.000
Labour Force Participation Rate	80.980	81.280	81.430	81.690	82.100	83.000

Source: The Authors' computation

Before proceeding with estimation, unit root tests were conducted to assess the stationarity properties of each variable. The Augmented Dickey-Fuller (ADF), Phillips-Perron (PP), and Zivot-Andrews (ZA) tests were applied. The ADF and PP tests were conducted to evaluate the stationarity of a time series by testing for the presence of a unit root under the null hypothesis, while the ZA test accounts for structural breaks in the data. Results are reported in Table 2.

Table 2: Unit Root Tests

Variable	ADF (Level)	ADF (First Diff.)	PP (Level)	PP (First Diff.)	ZA Stat. (Level)
Food Security Index (FSI)	-3.603 (0.050)	-	-4.078 (0.872)	-	-3.87
Lg(CPI)	-2.772 (0.278)	-4.441 (0.010)	-11.293 (0.389)	-16.076 (0.090)	-3.926
Lg(Population)	-2.026 (0.563)	-4.012 (0.023)	-11.463 (0.377)	-20.424 (0.022)	-3.224
Lg(GDP Per capita)	-0.466 (0.976)	-2.178 (0.505)	-1.139 (0.980)	-13.687 (0.228)	-3.856
Institutional Quality	-1.655 (0.704)	-2.938 (0.215)	-15.872 (0.094)	-14.536 (0.171)	-4.223
Labour Force Participation Rate	-	-2.192 (0.499)	-0.909 (0.984)	-13.602 (0.234)	-4.045

Source: The Authors' computation

Table 3 presents the estimated results of the Dynamic Ordinary Least Squares (DOLS) model investigating the long-run relationship between macroeconomic variables and food security in Nigeria. The DOLS approach control for endogeneity and serial correlation by incorporating both contemporaneous values and leads and lags of the first differences of regressors. The model demonstrates a strong fit, with an adjusted R-squared of 0.9987 and a highly significant F-statistic ($p = 0.0012$), indicating that the selected macroeconomic indicators collectively explain nearly all the observed variation in the Food Security Index (FSI). However, the interpretation of these results should be made with some caution, given the relatively short time span of available food security data (2002–present) used to construct the FSI (data source: FAO, 2024).

Table 3: DOLS Estimation Results

Variable	Coefficient	Std. Error	t-Statistic	p-Value
Intercept	-981.516	129.797	-7.562	0.017*
Lg(CPI)	0.098	0.020	4.798	0.041*
Lg(Population)	-0.266	0.415	-0.641	0.587
Lg(GDP per capita)	39.332	5.273	7.459	0.018*
Institutional Quality	-0.737	0.044	-16.652	0.004**
Labour Force Participation	8.323	1.112	7.479	0.018*

Significance codes: (*) Significant at the 10%; (**) Significant at the 5%; (***) Significant at the 1% and without means Not Significant; Leads & Lags of Diff. Terms included

Source: The Authors' computation

The results reveal several important long-run relationships. First, the log of the Consumer Price Index (CPI) exhibits a positive and statistically significant effect on food security ($\beta = 0.098$, $p < 0.05$). This finding may appear counterintuitive given the typical assumption that price inflation undermines access to food. However, it aligns with emerging arguments that moderate price increases may reflect heightened economic activity, improved food market responsiveness, or increased returns for agricultural producers in the short to medium term (Ha et al., 2021; Oyinbo et al., 2021; Baltensperger, 2023).

However, this result should be interpreted with caution. As noted by Sadikeen et al. (2024), inflation's impact on food security is highly context-dependent, often varying by whether households are net buyers or sellers of food. In Nigeria, where the majority of households are net buyers, persistent inflation typically deepens food insecurity, especially among the poor. The positive relationship here may reflect macro-level food supply responses or longer-term structural changes, rather than immediate household impacts.

The log of GDP per capita is also positively and significantly associated with food security ($\beta = 39.332$, $p < 0.05$), highlighting the critical role of rising incomes in enhancing access to food. This supports Engel's Law, which states that the proportion of income spent on food decreases as income rises, thereby allowing wealthier households to better weather price shocks and afford more diversified diets (Clements & Si, 2017; & Pandey, 2022; Hodjo et al., 2024). In the Nigerian context, where income inequality is significant and many households operate at subsistence levels, per capita GDP growth can create differential impacts. Nonetheless, at the national level, increased income remains a vital driver of food access, affordability, and overall security.

In contrast, Institutional Quality has a negative and statistically significant coefficient ($\beta = -0.737$, $p < 0.01$), which is an unexpected outcome given the theoretical assumption that stronger institutions should facilitate better food governance, efficient resource allocation, and effective social protection systems. This counterintuitive finding may reflect the complex and sometimes contradictory nature of institutional reforms in Nigeria. While institutional indicators may show improvement on paper, such as marginal gains in regulatory quality or rule of law, they may not translate into tangible benefits for food security due to widespread corruption, implementation lags, and policy inconsistencies (Cassimon et al., 2022; Demeshko et al., 2024; Ibrahim &

Baqutayan, 2024). Institutional quality in Nigeria is often undermined by elite capture, rent-seeking, and bureaucratic inefficiencies that distort policy execution, especially in the agricultural and food sectors (Raifu & Oladejo, 2024; Ezeudu & Okolie, 2025).

Another significant predictor is Labour Force Participation Rate, which shows a strong and positive influence on food security ($\beta = 8.323$, $p < 0.05$). This finding supports the view that higher participation in the labour market enhances household income and purchasing power, thereby improving food access and nutritional outcomes (Sangwan & Kumar, 2021; Ntimane & Madzivhandila, 2024). In a country like Nigeria, where underemployment and informal labour are prevalent, increasing labour force engagement, especially among women and youth, can play a critical role in improving food security outcomes.

The log of total population, however, is not statistically significant ($\beta = -0.266$, $p = 0.587$), suggesting that population size, in and of itself, does not have a long-run effect on food security within the Nigerian context. This supports the view that food security is less threatened by population growth itself and more by the failure of governance systems to promote inclusive economic development and agricultural productivity amid rising demographic pressures (Pawlak & Kołodziejczak, 2020; Guo & Islam, 2025).

In summary, the findings from the DOLS estimation provide compelling evidence that macroeconomic conditions, especially price dynamics, income levels, labour participation, and institutional performance, show significant and lasting effects on food security in Nigeria. These results support the theoretical expectations that economic and governance structures shape the availability, access, and stability of food systems over time. However, the unexpected negative coefficient on institutional quality highlights the need for more nuanced investigations into how formal institutions function in practice and their indirect effects on the food security landscape.

Conclusion and Policy Recommendations

Food security remains a pressing development challenge in Nigeria, shaped by complex interactions between price dynamics, institutional performance, and macroeconomic fundamentals. This study employed a Dynamic Ordinary Least Squares (DOLS) approach to examine the long-run impact of consumer prices, income, labour force participation, population, and institutional quality on food security from 2002 to 2022. The results provide robust evidence that macro-

structural factors exert a significant influence over national food security outcomes.

Three key findings emerge. First, the Consumer Price Index (CPI) shows a positive and statistically significant relationship with the Food Security Index. While this may reflect moderate price-driven supply responses, in Nigeria's context of volatile exchange rates and import dependence, sustained inflation often erodes purchasing power and disrupts food access. Second, institutional quality is negatively associated with food security, suggesting that governance structures, while present, may be failing to effectively support equitable food systems. Third, GDP per capita and labour force participation are strong positive predictors of food security, highlighting the importance of economic inclusion and employment in enhancing household resilience.

Rather than creating new institutions, policy attention should focus on strengthening and integrating existing frameworks. The Federal Ministry of Agriculture and Food Security (FMAFS) and the National Committee on Food and Nutrition (NCFN) are already mandated to coordinate national food security and nutrition strategies. These bodies should be better resourced and empowered to mainstream inflation management and employment generation into food policy. Addressing structural food inflation will require sustained investment in domestic agricultural production and logistics infrastructure. This includes scaling up smallholder support schemes, expanding cold-chain facilities, and promoting climate-smart agriculture. At the same time, demand-side measures such as targeted cash transfers or food vouchers for vulnerable groups can help mitigate the welfare impacts of rising food costs.

The negative institutional quality result highlights a need not for more bureaucracy, but for more effective and transparent governance. Monitoring and evaluation systems, digital subsidy tracking, and public accountability mechanisms must be strengthened to improve policy implementation. Although this study offers critical insights, it is limited by the annual nature of the data and the aggregate treatment of institutional quality. Future research should consider disaggregated, household-level, or subnational data and explore non-linear effects and feedback mechanisms. In conclusion, food security in Nigeria hinges not just on prices or production, but on how effectively institutions translate macroeconomic stability into tangible outcomes. Strengthening existing

institutions, using data intelligently, and investing in inclusive economic systems remain essential to building lasting food security.

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