International Journal of Innovative Food, Nutrition & Sustainable Agriculture 13(4):66-76, Oct.-Dec, 2025

 www.seahipublications.org **ISSN: 2467-8481**

doi:10.5281/zenodo.17596332

Product Market Equilibrium, Multi-Market Equilibrium And The Exchange Economics; An Empirical Revelation Of Disequilibrium In Nigeria

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ABSTRACT

This study empirically investigates the existence of a long-run multi-market equilibrium between the product market (measured by Real GDP) and the labor factor market (quantified by the Aggregate Employment) in Nigeria exists over a long-run period, 1991-2023. The study, against the background of constant jobless growth, challenges the neoclassical assumption of an automatic and stable output-employment correlation. The study applies an effective time-series framework, such as unit root tests (Augmented Dickey-Fuller) of the Augmented Dickey-Fuller, cointegration, and Vector Error Correction Models (VECM), and its results reveal no significant long-run cointegrating relationship between GDP and employment. The short-run dynamics also show that the markets are not operationally dependent considering that there is a weak positive correlation and no Granger causality. The results are conclusive that GDP growth will not be a standalone policy that is adequate to bring full employment in Nigeria. The paper hence suggests a basic re-calibration of national development policies to incorporate informed labour market and structural policies that directly overcome the rigidities that are decoupling product and factor markets.

Keywords: Market Equilibrium**,** Jobless Growth**,** Cointegration**,** Vector Error Correction Model (VECM)**,** Nigerian Labor Market

INTRODUCTION

Market equilibrium is an idea of supply and demand that is known to be at par, which is the foundation of economic theory Thaler (2018). This principle extends to both product markets where final goods and services are sold to the consumers and factor markets where the means of production, labor, capital, land and entrepreneurship is traded. The issue of market clearing has been solved in a perfectly competitive market where prices are adjusted to match the quantity supplied to the quantity demanded to create an equilibrium price and quantity Thaler (2018).

The Nigerian economy is the biggest in Africa in terms of GDP and it is also characterized by complex and in most cases contradictory structure. The economy is also richly endowed with both natural and human resources, but more importantly, it has been characterized by high levels of structural imbalances (World Bank, 2023). There is a large hydrocarbon industry, over 80 percent of government revenues and 90 percent of foreign exchange earnings, a large but inefficient agricultural industry and a stunted manufacturing industry (National Bureau of Statistics [NBS], 2023).

One of the key expressions of such structural weakness is the chronic failure of the factor markets in the country, and especially the labor market. Nigeria has experienced high levels of unemployment and underemployment despite the positive economic growth periods. Current statistics by the NBS (2023) recorded that under a revised methodology, the unemployment rate is at 4.1% and the underemployment rate is at 12.3, but these numbers conceal a deeper-seated crisis, particularly among the young people, with a large number not being employed formally or productively. This is the obvious imbalance in the labor factor market when supply of labor is too enormous compared to effective supply of labor in the economy, and the result is a massive involuntary unemployment.

As a result, policies that are based on such models as the analysis of the Nigeria Agenda 2050 and the Medium-Term National Development Plan (MTND) 2021-2025 can have excessively optimistic results and fail to capture the social and economic costs of unemployment and overestimate the effectiveness of interventions that directly do not target the structural rigidities of the labor market (Federal Republic of Nigeria, 2020). This detaches the theoretical modeling and the reality on the ground, which generates a critical research gap. It is thus urgent to create and apply economic models that include more realistic methods of labor market closure like those that permit fixed wages, endogenous unemployment, to give a better and policy-relevant measure to Nigeria as a specific situation.

But reality in the market often fails to satisfy this idealistic situation. Current theoretical developments emphasize how external shocks, market imperfection and behavioral aspects contribute to the establishment of slow-moving disequilibrium Tesfay and Weldeyohans (2025). An example is the COVID-19 pandemic and the geopolitical conflicts that have caused immense failures in global supply and labor markets, resulting in price volatility and inefficiency that conventional models are incapable of addressing Tesfay and Weldeyohans (2025). This highlights a serious disjuncture between the theoretical models, which frequently assume instantaneous clearing of the market, and reality of endemic unemployment and other failures of the market.

Statement of the Problem

The fact that in Nigeria, expansions in Gross Domestic Product (GDP) do not translate into a corresponding number of people getting employment is a paradox that is critical and negatively impacts the goals of national development (World Bank, 2023). Although empirical research has not been able to ignore this phenomenon, their limitations limit the applications and applicability of their findings. As an example, such pivotal research as that of Ewetan and Urhie (2018) is valuable, but it is excessively specific to the problem of youth unemployment, which is a symptom of the failure of the factor market to match the product market. Also, most current research attempts tend to use approaches that already assume the presence of a fixed relationship between GDP and employment without initially conducting formal research on whether there exists a long-run equilibrium, which is the underlying assumption of multi-market economic models utilized in national planning.

The dependence on research with demographic-bounded focus and the lack of a rigorous, system-wide empirical examination suggest that the national policies, including the Medium-Term National Development Plan, are premised on the untested hypothesis that, even in Nigeria, a stable, automatic relationship between the product market growth (GDP) and factor market performance (aggregate employment) exists.

Consequently, this study is designed to directly address these limitations. Moving beyond demographic segments, it conducts a macroeconomic diagnosis of the entire labor factor market. Its primary contribution is to empirically test for the very existence of a long-run multi-market equilibrium using a robust cointegration framework and Vector Error Correction Model (VECM). By doing so, it seeks to provide definitive evidence to either validate the current policy approach or reveal its fundamental flaw, thereby supplying the necessary empirical foundation for recalibrating Nigeria's economic development models.

Aim of the Study

The overarching aim of this study is to investigate the specific linkage between the product market (represented by national output/GDP) and the factor market (represented by labor employment) in Nigeria.

Specific Objectives are to:

i. test for the existence of a long-run cointegrating relationship (a multi-market equilibrium) between the product market indicator (Real GDP) and the factor market indicator (Aggregate Employment) in Nigeria using time-series data from 1991 to 2023;
ii. analyze the short-run dynamic adjustments and the direction of causality between product market growth and factor market employment, determining whether growth drives employment (product-to-factor market causality) or employment drives growth (factor-to-product market causality) and to;
iii. evaluate the implications of the findings for national economic policy, providing evidence-based recommendations on whether achieving product market equilibrium (GDP growth) is a sufficient condition for establishing factor market equilibrium (full employment) in Nigeria, or if targeted labor market interventions are necessary.

1.4 Research Questions

This study is guided by the following research questions:

i. Does a statistically significant long-run cointegrating relationship exist between Real GDP and Aggregate Employment in Nigeria, confirming a stable multi-market equilibrium between the product and labor factor markets?
ii. What is the direction of causality and the nature of short-run dynamics between product market growth and factor market employment in Nigeria, as captured by the Vector Error Correction Mechanism (VECM)?
iii. Based on the empirical evidence, what are the implications for Nigeria's national development policy regarding the sufficiency of GDP growth as a strategy for achieving full employment equilibrium?

Research Hypotheses

i. H_{01}: There is no significant long-run cointegrating relationship between Real GDP and Aggregate Employment in Nigeria.
   H_{11}: There is a significant long-run cointegrating relationship between Real GDP and Aggregate Employment in Nigeria.
ii. H_{02}: The Error Correction Mechanism (ECM) coefficient in the employment equation is not statistically significant and negative, indicating no convergence to long-run equilibrium following a short-run shock.
   H_{12}: The Error Correction Mechanism (ECM) coefficient in the employment equation is statistically significant and negative, confirming a convergence to long-run equilibrium following a short-run shock.
iii. H_{03}: GDP growth is a sufficient standalone policy for achieving significant and sustainable employment growth in Nigeria.
   H_{13}: GDP growth is not a sufficient standalone policy for achieving significant and sustainable employment growth in Nigeria, necessitating targeted labor market and structural interventions.

Literature Review

Conceptual Review of Key Variables

Factor Market Equilibrium and Employment

The factor market is the market of the production inputs, which are, in the first place, labor, capital, and land. Factor market equilibrium occurs when the amount supplied of a factor matches the quantity demanded at an existing price (e.g., wage rate of labor) (The Open University, 2024). In the labor context, this theoretically means that we see full employment whereby all the willing workers at the market wage are employed.

But this neoclassical opinion has now been contested. Keynes (1936) held that the labor markets might stabilize at a state of involuntary unemployment through the rigidity of wage and a lack of aggregate demand. This is of great importance to the Nigerian context, in which the labour market has been typified by an endemic surplus supply of labour, and hence the state of chronic disequilibrium (World Bank, 2023). The variable employment is therefore the important measure of the equilibrium or disequilibrium in labor factor market.

Product Market Equilibrium and Economic Growth

Final goods and services are sold and purchased in the product market. Product market equilibrium is a point at which aggregate supply equals aggregate demand, so the overall price level is going to be determined as well as the national output (Mankiw, 2018). The gross Domestic Product (GDP) is the main measure of market activity of products in a macroeconomic level that is measured by the total value of goods and services produced.

Constant growths of real GDP are signs of economic growth that theoretically ought to spur increase in the demand of factors of production including labor. The type of relations between the product market (output) and the factor market (employment) is thus basic to the understanding of the structure of an economy.

Theoretical Framework: Linking the Markets

Neoclassical Growth Theory

The neoclassical theories of growth, including the SolowSwan model, assume that there is a long-run, steady relationship between accumulation of capital, expansion of the labor force and output. These models have the economies converging to a steady-state equilibrium where the output and employment levels increase at the same rate (Solow, 1956). The implication of this theory is that policies which encourage GDP growth will automatically result in equal increases in employment in the long run, which is a major assumption that this study aims at testing.

Okun's Law

One of the most important concepts that connects the product and factor markets is the Okun Law according to which assuming changes in the unemployment rate leads to changes in real GDP, there is an inverse empirical relationship between them (Okun, 1962). For most economies, a GDP growth is accompanied by a reduction in the level of unemployment which is less than 1 percent. The degree of such a relationship (the Okun coefficient) however, differs greatly across nations and periods of time. The unemployment rate in Nigeria implies that the interrelationship between the two variables can be poor or even structural and, as a result, the multi-market equilibrium fails to operate as it is theorized by the standard theory (Adebayo et al., 2022).

The Multi-Market (General) Equilibrium Framework

The product and factor market theories are incorporated into the General Equilibrium model, which was developed by Walras (1874). It is a model that examines the inter-equilibrium in all interrelated markets within an economy. It shows the way in which a shock in one market (e.g., a boom in the oil industry - a product market) spreads to other markets (e.g., the labor factor market). The inability of employment to react to growth in GDP in Nigeria is a serious aberration in this theoretical model and this indicates that the adjustment mechanisms (such as flexible wages and prices) are not functioning properly.

Empirical Literature Review

Researchers have contributed significantly in understanding the dynamic of economic equilibrium for instance Ewetan and Urhie (2018) investigate youth unemployment in Nigeria and its correlation with economic growth for the period between 1985 and 2015. They applied an Error Correction Mechanism (ECM) to examine the hypothesis that the characteristics of the growth of Nigeria that is led by the capital-intensive oil sector were the cause of its inability to provide jobs to the youth. Their results proved that the growth of the GDP did not significantly affect the reduction of the youth unemployment which showed the severe structural mismatch.

Bangake and Eggoh (2019) performed a panel data analysis covering 42 African countries, with Nigeria being one of them. They employed panel cointegration tests and Granger causality tests of the 1980-2017 data and discovered that there was evidence of a long-run relationship between output and employment, although the causality was mixed across countries; in resources-rich countries such as Nigeria, it is often the case that growth did not Granger-cause employment.

Nwokoye et al. (2020) address the long-standing issue of jobless growth in Nigeria by developing Okun Law testable in 1991-2018. using Vector Error Correction Model (VECM) to understand the dynamics in the long-run and short-run between real GDP and unemployment. Their results suggested that the Okun Law was only true in Nigeria in the short-run and it had weak and volatile relationship in the long-run.

Adebayo *et al*. (2022) examined the asymmetric nexus between growth and unemployment in Nigeria during 1991 to 2019. They discussed the issue of conflicting findings of the studies which assumed a symmetric relationship. They concluded that positive GDP (economic growth) shocks produced a large unemployment increase in the long-run a perverse jobless growth effect whereas negative shocks (contractions) also increased unemployment using the Nonlinear Autoregressive Distributed Lag (NARDL) model.

Danrimi and Badawaire (2025) conducted a study to explore interrelationships between GDP growth, population change, and inflation in Nigeria through a hybrid Vector Autoregression (VAR) and Machine Learning model in the year 2025. They found a vital one-way causal interaction with data 1960-2024 that demonstrated economic growth (GDP) Granger-causes the population changes in contradiction to the traditional theories of population-driven growth, but inflation was found to be mainly steady and not dependent on the domestic output and demographics. the study limitation is that data of employment rate is omitted.

Okafor *et al.* (2021) analyzed the determinants of employment in Nigeria, with the issue of the importance of economic diversification, as opposed to the overall growth of the GDP, as the answer to creating jobs. Their results based on an Autoregressive Distributed Lag (ARDL) model on the 1991-2018 data showed that aggregate GDP growth has a weak yet statistically significant impact on the employment, whereas agricultural and services sector growth has a statistically significant positive influence on the employment level.

METHODOLOGY

Research Design

The research design presented in this work is ex-post facto, quantitative research design because the research questions aim to explore a long-run correlation between product market performance and factor market outcomes in Nigeria. A time-series econometric approach is followed in which the particular model cointegration and error correction modeling is used and the model is especially effective in the analysis of equilibrium relationships between economic exchangeable variables (Gujarati and Porter, 2009).

Data Sources and Measurement

Secondary time-series data covering the period 1991-2023 will be utilized for the analysis. The data will be sourced from:

- The National Bureau of Statistics (NBS) Nigeria
- The World Bank Development Indicators
- The Central Bank of Nigeria Statistical Bulletin

The variables for the study are:

- Real GDP (RGDP): Measured in constant 2010 prices (Naira), representing product market performance
- Employment (EMP): Measured as total number of employed persons (in millions), representing factor market outcome

Both variables will be transformed into natural logarithms to normalize the data and enable elasticity interpretation.

Model Specification

The theoretical foundation for the model is derived from the production function framework and general equilibrium theory, which posits a long-run relationship between output and factor inputs (Solow, 1956). The functional relationship is specified as:

$$\boldsymbol{lnEMP_t = \beta_0 + \beta_1 lnRGDP_t + \varepsilon_t}$$

Where:

- $lnEMP_t$ is the natural log of employment at time *t*
- $lnRGDP_t$ is the natural log of real GDP at time *t*
- β_0 is the constant term
- β_1 is the elasticity coefficient
- ε_t is the error term

3.4 Estimation Technique

3.4.1 Unit Root Testing

To avoid spurious regression, the study will first test for stationarity using the Augmented Dickey-Fuller (ADF) test (Dickey & Fuller, 1979). The ADF test equation is:

$$\boldsymbol{\Delta Y_t = \alpha + \beta t + \gamma Y_{t-1} + \Sigma \delta_i \Delta Y_{t-i} + \varepsilon_t}$$

Where:

- Y_t is the variable being tested $(lnEMP\ or\ lnRGDP)$
- Δ is the difference operator
- α is the constant term
- βt is the trend component
- γ is the coefficient on the lagged level
- δ_i are the coefficients on lagged differences

3.4.2 Cointegration Test

If variables are integrated of the same order *I(1),* the Johansen (1988) cointegration procedure will be employed to test for long-run relationship. The Vector Error Correction Model (VECM) of order p is:

$$\boldsymbol{\Delta X_t = \Pi X_{t-1} + \Sigma \Gamma_i \Delta X_{t-i} + \varepsilon_t}$$

Where:

- X_t is a vector of I(1) variables $[lnEMP, lnRGDP]$
- $\Pi = \alpha\beta'$ contains the long-run parameters
- β is the matrix of cointegrating vectors
- α is the matrix of adjustment coefficients

Vector Error Correction Model (VECM)

If cointegration exists, the VECM will be estimated to capture short-run dynamics:

$$\Delta lnEMP_t = \alpha_1 + \Sigma\beta_{1_i}\Delta lnEMP_{t-i} + \Sigma\gamma_{1_i}\Delta lnRGDP_{t-i} + \lambda_1 ECM_{t-1} + \varepsilon_{1t}$$

$$\Delta lnRGDP_t = \alpha_2 + \Sigma\beta_{2_i}\Delta lnEMP_{t-i} + \Sigma\gamma_{2_i}\Delta lnRGDP_{t-i} + \lambda_2 ECM_{t-1} + \varepsilon_{2t}$$

Where:

- ECM_{t-1} is the error correction term lagged one period
- λ_1 and λ_2 are the speed of adjustment parameters
- β_i and γ_i are short-run coefficients

Diagnostic Tests

The model will be subjected to:

- Serial correlation test (Breusch-Godfrey LM test)
- Heteroscedasticity test (White test)
- Normality test (Jarque-Bera test)
- Stability test (CUSUM and CUSUMSQ tests)

Granger Causality Test

To determine the direction of causality, the Granger causality test will be conducted within the VECM framework (Granger, 1969).

DATA ANALYSIS AND RESULTS DISCUSSIONS

Table 1: Descriptive Statistics of Key Variables (1991-2023)

Variable	Obs	Mean	MD	SD	Var	Min	Max	Range
Unemployment Rate (%)	33	4.07%	3.90%	0.57%	0.327	3.07%	5.74 %	2.67%
Nominal GDP (Billion US$)	33	275.23	278.26	167.00	27,889.97	52.06	574. 18	522.12

Table 1 reveal a contrast between the behavior of the labor market (unemployment) and the product market (GDP) in Nigeria over the 33-year period where findings shows that the nominal GDP is characteristically highly volatile with a standard deviation of $167 billion reflecting boom-bust cycles induced by oil dependency, the unemployment rate is deceptively consistent within a thin band of 2.67 indicating a labor market totally detached to product market development. It is this sharp contrast between 11-fold growth in economic output and only modular changes in unemployment that give some underpinning support to the idea of a structural disequilibrium, essentially contradicting the neoclassical assumption of an automatic balancing of product market growth into factor market equilibrium and underlining the conclusion of the study that some intervention in the labor market is necessary beyond GDP-oriented policies.

Table 2: Unit Root Tests - Stationarity Analysis

Variable	Test Type	Test Statistic	5% Critical Value	Conclusion
GDP (Level)	ADF with Trend	-2.7786	-3.50	Non-stationary
Unemployment (Level)	ADF with Trend	-2.3394	-3.50	Non-stationary
GDP (First Difference)	ADF with Drift	-3.2749	-2.93	Stationary*
Unemployment (First Difference)	ADF with Drift	-1.9767	-2.93	Non-station

Table 2 shows the Factor Market Equilibrium Perspective whereby the unit root tests show the basic aspects of the factor market and product market dynamics in Nigeria. Both the GDP (product market indicator) and unemployment (factor market indicator) have non-stationary levels implying that they experience stochastic changes, meaning that they do not have the inherent inclination to revert to equilibrium. Whereas GDP stagnates after the initial difference, unemployment is non-stationary indicating that the labor market is in a state of constant disequilibrium.

Table 3: Cointegration Test - Long-run Multi-Markets Equilibrium

Test Type	Hypothesis	Test Statistic	5% Critical Value	Conclusion
Johansen Trace Test	r = 0	20.16	25.32	No cointegration
Johansen Trace Test	r ≤ 1	7.79	12.25	No cointegration

Table 3 shows the Multi-Markets Equilibrium Analysis in which the Johansen cointegration findings give significant evidence on the multi-markets' equilibrium in the product and factor market in Nigeria. The test values (20.16 and 7.79) are less than the critical values hence there is no long-run equilibrium relationship between GDP growth and employment. This discovery essentially contradicts the neoclassical belief in the automatic adjustment mechanisms in the interrelated markets. Lack of cointegration implies that the economic system of Nigeria is not characterized by the self-correcting characteristics of the general equilibrium theory, in which the performance of product markets (GDP) and factor markets (employment) are disconnected spheres, but not parts of an integrated system of exchange economics.

Table 4: VAR Model Results - Short-run Dynamics

Equation	R-squared	Key Significant Variables	Insignificant Variables
GDP Equation	0.8537	ln_GDP.l1 ($p < 0.001$)	All unemployment lags ($p > 0.05$)
Unemployment Equation	0.8123	ln_Unemployment.l1 ($p < 0.001$), ln_Unemployment.l2 ($p < 0.001$)	All GDP lags ($p > 0.05$)

Table 4 displays the Vector Autoregression (VAR)/short run dynamic analysis, in which the results indicate that the model demonstrates that there is a disconnected critical aspect of market equilibrium dynamics in Nigeria. The large R-squared (0.8537 and 0.8123) values show that the models fit well, whereas the trend of significant variables shows the presence of unidirectional independence between markets. The development of GDP is determined by its own history and it is not influenced by the state of labor market. Equally, unemployment processes are propelled by past unemployment trends and not by performance of the product markets.

Table 5: Diagnostic Tests and Descriptive Statistics

Test/Statistic	Result	Interpretation
Serial Correlation Test	p-value = 1.000	No serial correlation in residuals
Normality Test	p-value < 2.2e-16	Residuals not normally distributed
Correlation Coefficient	0.3324	Weak positive relationship
Average GDP Growth (1992-2023)	9.6%	Strong product market expansion
Average Unemployment Change	-0.02 percentage points	Minimal factor market improvement

Table 5 gives Diagnostic Tests and Descriptive Statistics which studies the Market Performance and Integration wherein the outcome of the research shows that Nigeria has a jobless growth paradox in the context of the exchange economics. Although there is no serial correlation between the model (p-value = 1.000), non-normality of the residues demonstrates the possible structural break or nonlinearity. The most notable is the low positive correlation (0.3324) between GDP and unemployment, which is contrary to Okun Law of a negative correlation. The descriptive statistics are used to point out the main dilemma: the natural 9.6% growth in the GDP is accompanied by the practically the same unemployment rates (-0.02

percentage points per year). This is a basic breakdown of the market equilibrium mechanisms, in which the increase of product market does not correspond with the enhancement of factor market, and the theory of multi-market equilibrium becomes problematic in the Nigerian context.

Table 5: Structural Break Analysis - Methodology Change Impact

Period	Correlation	Average Unemployment	Average GDP
Pre-2022 (1991-2021)	0.416	4.11%	$265.85 billion
Post-2022 (2022-2023)	1.000	3.44%	$420.62 billion

Table 5 shows structural break analysis on Equilibrium Analysis in which, the structural break analysis shows how measurement methods impact on our knowledge on factor market equilibrium. The change in methodology in 2022 produced an artificial structural break, where the correlation between pre-2022 and post-2022 data is moderate with a correlation of 0.416 and a correlation of 1.000 respectively. Such a change in methodology makes it more difficult to measure the real market equilibrium conditions and highlights the difficulties in studying multi-markets equilibrium in the case of a change of measurement frameworks.

CONCLUSION

This study examined how product market performance (measured by GDP) and factor market outcome (measured by employment) interact in Nigeria between 1991 and 2023, and specifically examined whether there is equilibrium relationship between these two markets.

The empirical evidence of both the Augmented Dickey-Fuller tests and the Johansen cointegration procedure provided the consistent evidence of the lack of a fixed long-run equilibrium of GDP and employment. The unit root tests indicated that the level of both variables is non-stationary and more importantly the cointegration test indicated that there is no significant long-run relationship between the variables (trace statistic = 20.16 compared to critical value = 25.32).

In case of the Analyzing short-run dynamics and causality, the Vector Autoregression model demonstrated great explanatory power of individual equations (R-squared of 0.8537 in GDP and 0.8123 in unemployment) but demonstrated no significant short-run causal relationships among the variables. There was no significant impact of lagged GDP values on the current unemployment ($p > 0.05$).

With regard to Policy implications evaluation, the analysis showed a weak positive relationship (0.3324) between GDP growth and unemployment which is contrary to theoretical expectations. The descriptive statistics further pointed out to the paradox of jobless growth in Nigeria, where the average growth in its GDP was invited at 9.6% and an insignificant progress in unemployment (an average change per year of -0.02% points).

The paper concludes that there is no significant equilibrium relation between factor market of labour and product market in Nigeria. The empirical data disregard the initial theoretical assumption that the economic growth, automatically, is converted into employment creation by the market clearing mechanisms. Hence there is a structural disintegration of the system of the economy of Nigeria with product market expansion and factors markets performance acting as separate spheres instead of being coupled with each other forming a balanced system.

The results of this research on the existence of a broken growth-employment nexus in Nigeria are highly confirmed by a literature review on the developing, resource-dependent economies. We directly support the phenomenon of jobless growth found by Ewetan and Urhie (2018) and the relationship observed by Adebayo *et al.* (2022), and the analysis of the whole economy with strong cointegration analysis. The lack of the equilibrium of long-run multi-markets is consistent with the findings of Bangake and Eggoh (2019) in the context of the continent, and the results of our VAR model are consistent with the finding that the aggregate growth does not matter without looking at its structure composition (Okafor *et al.*, 2021). The results essentially counter the neoclassical equilibrium theory and the Okun Law, which is contrary to the studies of developed economies, although it is agreeable with Nigeria-specific studies by Nwokoye *et al.* (2020). These paradoxes are resolved with the help of the specific structural rigidity of

Nigeria, such as wage stickiness, informal sector, skill-mismatch, capital-intensive reliance on oil, which do not allow the theoretical market-clearing mechanisms to take effect. The approach rigor of our cointegration approach can offer a more conclusive test of equity relations compared to other basic analyses, which is why some of the studies may find meaningful relations whereas our results show that there is a basic structural break between the product and factor market in Nigeria. Based on the results, it is recommended that policymakers in Nigeria should radically transform their GDP-based planning to focused strategies capable of enhancing economic diversification and correcting labor market rigidities, which in turn will have a direct stimulative effect on employment. Future studies can expand this study by carrying out sectoral analysis to determine the areas with high employment growth rates and adding institutional variables to enhance the interpretation of the moderators of the product-factor market nexus.

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