



EFFECT OF FINANCIAL INCLUSION ON STRUCTURAL TRANSFORMATION IN WEST AFRICAN ECONOMIC AND MONETARY UNION (WAEMU) COUNTRIES

KOMLAGAN MARTIN EKOUMADALON¹ AND
OSSADZIFO KWAMI WONYRA¹

¹*Department of Economics, University of Kara, Togo, Laboratoire de Recherche en
Sciences Economiques et de Gestion (LaSEG)*

E-mail: ekoumadalon92@gmail.com; wonyra.assa@gmail.com

Received: 13 August 2026; Revised: 19 September 2026;

Accepted 29 September 2026; Publication: 08 October 2026

Abstract: This study analyses the effect of financial inclusion on structural transformation in the West African Economic and Monetary Union (WAEMU) over the period from 2006 to 2022. Structural transformation is measured using a shift-share-based index capturing the aggregate productivity of the agricultural, industrial, and services sectors. Financial inclusion is assessed through a composite indicator reflecting access to, use of, and availability of financial services. Using Panel-Corrected Standard Errors (PCSE), the findings show that financial inclusion does not contribute significantly to the structural transformation in the region. This suggests the absence of an effective transmission mechanism linking financial services to productive sector development or labor reallocation. Control variables reveal that investment positively influences structural transformation, while public expenditure and institutional quality exhibit negative effects. The results highlight the need to redesign financial inclusion strategies by strengthening their connection to productive activities, improving financial literacy, and enhancing the effectiveness of budgetary reforms.

Keywords: Financial inclusion, Structural transformation, WAEMU, Panel Data

JEL Classification: E58, G21, O47, C23

To cite this paper:

Komlagan Martin Ekoumadalon & Ossadzifo Kwami Wonyra (2026). Effect of Financial Inclusion on Structural Transformation in West African Economic and Monetary Union (WAEMU) Countries. *Indian Journal of Finance and Economics*. 7(1-2), 109-124.

I. INTRODUCTION

From the thinking of the Holists to the writings of contemporary economists, structural transformation remains a central pillar for achieving strong, resilient, and sustainable growth aimed at reducing poverty, combating hunger, gender inequality, and food insecurity (SDGs, 2030). At its core, structural transformation reflects an economy's ability to shift from low-productivity, agrarian structures toward more diversified and higher-productivity sectors (Ait Ali & Msadfa, 2016).

In recent decades, the process of structural transformation has once again become a major concern for developing countries, particularly in Africa, and one of the most debated issues in the economic literature concerns the financing of productive sectors. Several schools of economic thought have approached this issue from different perspectives.

Theoretically, Keynesian financing models (monetary policy) for economic sectors relied on strong government intervention and favored sectoral financing schemes. According to these models, underdevelopment stemmed from the inability of poor countries to save and invest in their economies. Credit was therefore viewed as a critical instrument for triggering the virtuous circle of development and private investment. This Keynesian framework emphasized public credit as a key tool for economic growth, innovation financing, and expanding aggregate production. In contrast, neoclassical economists such as Shaw (1967) and McKinnon (1973) provided a theoretical critique of the financial repression that characterized Keynesian financing policies. They advocated for the liberalization of the financial system, arguing that financial deepening could help lift constraints related to economic financing.

In this context, the WAEMU adopted in 2016 a regional financial inclusion strategy endorsed by the Union's Council of Ministers. Numerous initiatives have since been implemented by the Central Bank and member states, as well as by various technical and financial partners, to improve access to and use of financial services by economic actors and the population (BCEAO, 2021). Financial inclusion in WAEMU increased by 3.8 percentage points, reaching 63.8% in 2020 compared with 60% in 2019 (BCEAO, 2020). In 2021, this rate further rose from 63.8% to 67.2% (BCEAO, 2021), reflecting significant progress in the region. Financial inclusion thus has growing potential and remains a key factor in the West African Economic and Monetary Union.

This suggests that it may influence macroeconomic variables such as structural transformation. Moreover, while most studies in the economic literature have focused on the determinants of financial inclusion (Demirgüç-Kunt & Klapper, 2013; Sarma & Pais, 2011; Fungacova & Weill, 2015; Tuesta et al., 2015; Chithra & Selvam, 2013), its impact on macroeconomic variables particularly structural transformation, now considered a driver of wealth creation (Ait & Msadfa, 2016) remains largely unexplored.

Structural transformation defined as the reallocation of resources from low-productivity sectors toward high-productivity sectors to accelerate long-term economic growth—shows weak performance within the WAEMU. Between 2000 and 2022, the agricultural sector contributed on average about 25.89% to GDP, whereas the industrial and services sectors contributed around 20.32% and 43.64%, respectively (WDI, 2022). During the same period, agriculture accounted for the largest share of total employment, representing about 55.50%. Employment in industry and services represented approximately 11.92% and 32.56% of total employment, respectively (WDI, 2022). Notably, the services sector contributed more to GDP than the others, while the industrial sector contributed only marginally within WAEMU. Recognized as a driver of development (Mühlen & Escobar, 2020; Jie & Shamshedin, 2019; Megbowon et al., 2019; Okey, 2019), **does financial inclusion contribute to the structural transformation of WAEMU economies?** This study seeks to address this underexplored question in the economic literature. More specifically, this paper aims to analyze the effect of financial inclusion on the overall productivity of economic sectors within the WAEMU.

The contribution of this study to the economic literature lies in the fact that, despite extensive research on the effects of financial inclusion, studies examining its contribution to structural transformation in WAEMU countries remain scarce, to the best of our knowledge. Existing research has mainly focused on the determinants of financial inclusion (Demirgüç-Kunt & Klapper, 2013; Sarma & Pais, 2011; Fungacova & Weill, 2015) or on its effects on economic growth, such as the studies by Yves Hounguevou et al. (2022) in Benin, Sene et al. (2023) in Senegal, and Beauclair et al. (2024) in Sub-Saharan Africa.

The remainder of the article is structured as follows: Section 2 presents a brief literature review and an analysis of stylized facts, while Section 3 outlines the data and methodology. Section 4 provides the results and their interpretation, and Section 5 concludes with economic policy implications.

II. LITERATURE REVIEW

We provide a brief overview of the theoretical and empirical literature in order to capture the current state of research on structural transformation and financial inclusion. Our literature review begins by highlighting key contributions establishing the theoretical link between finance and development, followed by an examination of empirical studies addressing the relationship between financial inclusion and structural transformation.

2.1. Theoretical Literature Review

The analysis of the effect of financial inclusion on structural transformation originates from research on the relationship between financial theory and economic growth. This relationship dates back to the pioneering work of Schumpeter (1911). A review of Schumpeter's contributions and those of his successors reveals diverse perspectives on the subject. The literature on the finance–growth nexus is far from unanimous, and numerous divergences persist.

Bagehot (1873) supported the idea of a positive impact of the financial sector on economic growth. To substantiate this position, he examined the British economy, arguing that its development success was rooted in the strength of its financial market. The British financial system exhibited a strong ability to mobilize savings to finance long-term investment, making it highly inclusive an attribute that proved beneficial for firms and the economy as a whole. According to Bagehot (1873), restricting access to financial services for certain firms could hinder the adoption of new technologies that are crucial for job creation and economic growth.

In this perspective, Schumpeter (1911) supported Bagehot's argument by emphasizing the significant role of financial services particularly bank credit in economic growth. For Schumpeter (1911), bank credit enhances overall economic productivity by encouraging technological innovation. He argued that bankers play a crucial role in identifying entrepreneurs with the greatest potential for successful innovation. Implementing new production technologies requires financial resources, and the financial system's role is to provide them. Therefore, banks must be able to supply credit. In cases of insufficient savings, innovative entrepreneurs are financed through credit creation. For Schumpeter, savings are not a prerequisite for credit supply; banks can create essential credit.

Keynes (1936), however, offered contributions that differed from those of Bagehot (1873) and Schumpeter (1911). Keynesian financing policies emphasized sectoral financing models. Under these models, underdevelopment was viewed as stemming from the inability of poor countries to save and invest in their economies. Credit was therefore used as a lever to trigger the virtuous circle of development and private investment. Keynesian theory highlighted public credit as a necessary tool for economic growth, innovation financing, and the expansion of aggregate production. This underscores Keynes's focus on the central role of investment in output and employment. His theory examines the conditions under which monetary mechanisms influence real economic dynamics: investment is stimulated by lower interest rates, and financial intermediation supports investment. Investment is therefore an effective means to create wealth and increase sectoral value added.

2.2. Brief Empirical Review

This empirical section presents recent studies on financial inclusion and economic development, highlighting empirical methods and findings in order to draw conclusions on their theoretical and practical implications.

According to Beauclair et al. (2024), financial inclusion plays a crucial role in achieving the Sustainable Development Goals. Their study analyzed the effect of financial inclusion on economic growth in Sub-Saharan African (SSA) countries using dynamic panel data. The results showed that financial inclusion is a key factor in economic performance across SSA. However, this effect depends on country-specific cultural, religious, political, institutional, and structural characteristics.

Using data for 45 countries, Vanassche (2004) found that financial openness has a positive effect on industrial sector growth, regardless of industry characteristics, with stronger effects for industries more dependent on external financing in countries with more integrated financial systems.

Sene et al. (2023) examined the effects of financial services inclusion on economic growth in Senegal over the period 2007–2021 using an Autoregressive Distributed Lag (ARDL) model. Their results show that, in the short run, financial inclusion indices have a positive impact on real GDP growth; specifically, a 1% increase in the financial inclusion index leads to a 0.78% increase in real GDP growth. In the long run, the effects remain positive, with a 1% rise in financial inclusion improving real GDP growth by 0.70%.

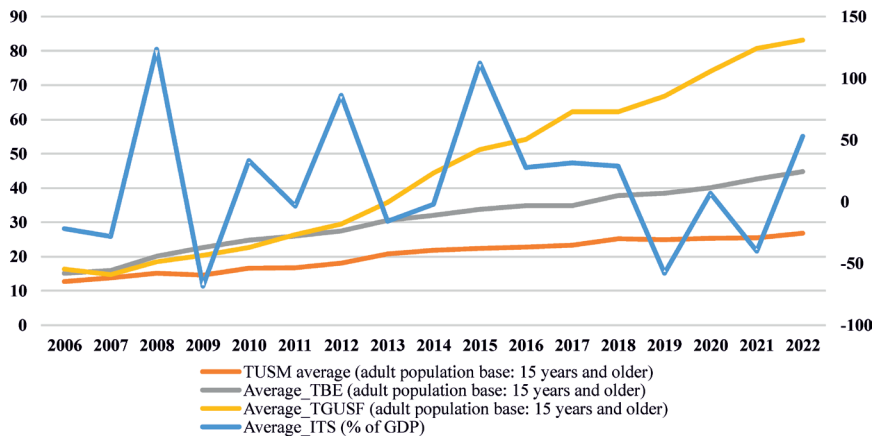
2.3. Financial Inclusion and Structural Transformation in the WAEMU

Since 2016, WAEMU has adopted a new regional financial inclusion strategy endorsed by the Union’s Council of Ministers. Numerous initiatives have been implemented by the Central Bank, member states, and various technical and financial partners to enhance access to and use of financial services among economic actors and the population.

At the regional level, initiatives have focused on developing programs to strengthen financial literacy, promoting digital financial services, advancing the digitalization of government payments, and improving the ecosystem to support financial innovation.

Financial inclusion rates in WAEMU increased by 3.8 percentage points, reaching 63.8% in 2020 compared with 60% in 2019 (BCEAO, 2020). In 2021, this rate further rose from 63.8% to 67.2% (BCEAO, 2021).

Stylized facts concerning financial inclusion and structural transformation are presented as follows:



Graph 1: Evolution of the structural transformation index measured by the overall productivity of sectors (ITS % GDP), the microfinance service utilization rate (TUSM), the broad banking penetration rate (TBE), and the overall financial service utilization rate (TGUSF) in the WAEMU

Source: BCEAO (2024), WDI (2024) and author’s calculations

The comparative analysis of trends in sectoral total productivity (ITS % of GDP) and the indicators of microfinance service usage (TUSM), the expanded banking rate (TBE), and the overall rate of financial service usage (TGUSF) in the

WAEMU reveals that the low level of sectoral total productivity coincides only weakly with the increase in microfinance service usage (TUSM), the expanded banking rate (TBE), and the overall rate of financial service usage (TGUSF). However, the growth of the overall rate of financial service usage (the financial inclusion rate) is faster 83% in 2022 than the usage rates of microfinance services (TUSM) and expanded banking, which stood at 45% and 26%, respectively, in 2022. This may be explained by the population's increased use of electronic money for transfers, deposits, airtime purchases, and bill payments, driven partly by the health crisis linked to COVID-19 and partly by the measures taken by the Central Bank to ease account-opening requirements within the WAEMU.

III. METHODOLOGY

A. Data Source

Our countries sample is determined by data availability and consists of eight (8) countries in the WAEMU zone (Benin, Burkina Faso, Côte d'Ivoire, Senegal, Mali, Niger, Guinea-Bissau, Togo) covering the period from 2006 to 2022. This choice is justified by the fact that these countries share the same historical background and currency. The data is collected from the World Development Indicators (2022) and BCEAO (2022) databases.

1. *Dependent variable*

The dependent variable is the structural transformation index, which is captured here through the aggregate productivity of economic sectors in WAEMU countries. The use of this index offers substantial advantages over the one employed by McMillan & Rodrik (2011)—the sum of sectoral value added weighted by the differential in employment shares. This index is constructed using the shift-share method. The literature indicates that this method was first used in the work of Jones (1940) and more recently by De Vries et al. (2015), Aronda & Amadou (2019), and Wissal Sahel (2020).

To this end, the following six (6) variables are utilized: employment share in the agricultural sector (% of total employment), employment share in industry (% of total employment), employment share in services (% of total employment), agricultural, forestry and fishing value added (% of GDP), industrial value added (% of GDP), and services value added (% of GDP). The index is calculated as follows:

$$\Delta Q_{(t_0, t_1)} = \sum_I \Delta \phi_{i(t_0, t_1)} \times \lambda_{i,t} + \sum_I \Delta \lambda_{i(t_0, t_1)} \times \phi_{i,t} + \sum_I \Delta \phi_{i(t_0, t_1)} \times \Delta \lambda_{i(t_0, t_1)}$$

A positive value indicates the occurrence of structural transformation. ϕ_i the share of sector (i) in total employment, $\lambda_{i,t}$ the labor productivity level of sector (i); the subscripts (0) and (t) refer to the initial and final periods, respectively.

Using this index offers an objective analytical advantage at three levels:

- The first term on the right-hand side captures the change in aggregate productivity resulting from productivity improvements within each sector.
- The second term reflects the change in productivity attributable to shifts in labor reallocation across sectors.
- The third term captures the simultaneous interaction between within-sector productivity changes and shifts in labor allocation among sectors.

2. Explanatory Variable and Control Variables

The explanatory variable is financial inclusion. This index is captured in all its dimensions within the WAEMU using a composite indicator constructed from seven combined metrics. It consists of a single value ranging from 0 to 100, representing situations of complete financial exclusion and full financial inclusion, respectively. Financial inclusion (IF) is our variable of interest and is measured in this study through the overall usage rate of financial services. The expected sign is positive. This variable is obtained from the BCEAO database.

Based on the literature, the control variables are defined as follows:

The variable INVEST represents the investment rate, defined as the share of investment in total output. In the literature, investment is considered a key factor in the wealth-creation process, increasing income; hence the expected sign is positive. Conversely, the variable INFLAT captures the annual inflation rate (IPC, %), with an expected negative sign.

The variable DEG represents government expenditure as a ratio to GDP. It captures final consumption spending by public administrations (constant 2010 US\$). The expected sign is positive.

Institutional regulation (QUALRE) is the institutional variable that measures institutional quality. Strong institutional quality can foster economic

growth and improve income distribution within a country, thereby supporting economic development (Bouoiyour et al., 2009; Okey, 2019).

Table 1: Variable Descriptions and Sources

<i>Variables</i>	<i>Definitions</i>	<i>Sources</i>
EMA	Share of employment in the agricultural sector (% of total employment)	WDI (2022)
EMI	Share of employment in industry (% of total employment)	WDI (2022)
EMS	Share of employment in services (% of total employment)	WDI (2022)
GVA	Agricultural, forestry, and fishing value added (% of GDP)	WDI (2022)
GVA	Industrial value added (% of GDP)	WDI (2022)
VAS	Service value added (% of GDP)	WDI (2022)
IF	Financial Inclusion	BCEAO (2022)
INVEST	Investment rate	BCEAO (2022)
INFLAT	Inflation rate	BCEAO (2022)
QUALRE	Institutional variable	WGI (2022)
DEG	Government expenditure as a percentage of GDP	BCEAO (2022)

Source: Author

B. Model

1. Theoretical framework and model selection

The structural transformation model originates from the economic growth model. Numerous studies have analyzed the decomposition of labor productivity growth, such as Jones (1940) and Fabricant (1942), in other words, the determinants of economic growth. In the literature, this decomposition has shown that structural transformation is one of the components of economic growth. Kuznets (1971) and some economists argue that there is a strong interdependence between economic growth and structural transformation. Consequently, those who analyze the determinants of economic growth are also indirectly analyzing the determinants of structural transformation. The model can be obtained by considering the following general production function:

$$Y_t = f(K_t, Z_t) \quad (1)$$

Where Y_t represents the actual output of the economy at time (**t**), K_t denotes capital at time (**t**), and Z_t denotes other factors that may affect the output of the economy at time (**t**). Consider (**n**) countries, each indexed by (**i**). Thus, the set I comprising the **n** countries studied $I = \{1, 2, 3, \dots, n\}$. The production function is again:

$$Y_{it} = f(K_{it}, Z_{it}) \tag{2}$$

The linear form of the model can be presented as follows:

$$Y_{it} = \sum_{i=1}^n \beta_i K_{it} + \sum_{i=1}^n \alpha_i Z_{it} + \varepsilon_{it} \tag{3}$$

Where ε_{it} is the error term for country (i) at time (t), K_{it} **are** the variables of interest, and $Z(it)$ are the control variables. In the specific case of our work, $Y_{(it)}$ represents the performance index for the structural transformation of country (i) at time (t); $K_{(it)}$ denotes the vector of the variable of interest, financial inclusion.

2. Empirical model

Considering the theoretical specialization developed above, the analysis of the effect of financial inclusion on the structural transformation of WAEMU countries can be estimated using the following equation:

$$IST_{it} = \beta_0 + \beta_1 IF_{it} + \alpha_1 INVEST_{it} + \alpha_2 INFLAT_{it} + \alpha_3 DEG_{it} + \alpha_4 QUALRE_{it} + \varepsilon_{it} \tag{4}$$

Where Y_{it} (IST) represents the endogenous variable, $\beta_1, \alpha_1, \alpha_2, \alpha_3$ et α_4 are the coefficients of the model variables.

IV. RESULTS AND INTERPRETATIONS

4.1. Descriptive Statistical Analysis of the Data

We observe in Table 2 below that the variable measuring structural transformation is more volatile than the other variables, with a standard deviation of 121.461. In contrast, investment is the least volatile variable (7.342). The average structural transformation over the study period—captured here by the aggregate productivity of the economic sectors in WAEMU countries—stands at 15.620, while the average financial inclusion index is 44.885.

Table 2: Descriptive statistics of variables

	<i>IST</i>	<i>IF</i>	<i>DEG</i>	<i>INFLAT</i>	<i>INVEST</i>	<i>QUAL RE</i>
Mean	15.620	44,885	14,069	2,200	20,227	-0.614
Std. Dev.	121,461	30,549	2.787	2.875	7,342	0.314
Minimum	-295,451	0.861	9,348	-3,200	3,810	-1,321
Maximum	914,960	99,384	20,500	14,100	35,720	-0.073
Observations	136	136	135	136	136	136

Sources: BCEAO, WDI, Author's calculations

4.2. Analysis of Variable Correlation

Before proceeding with further tests and model selection, it is necessary to identify the degree of correlation between the dependent and independent variables. Table 3 below presents the results of the correlation matrix. We observe that the dependent variable (structural transformation index) is weakly correlated with the variable of interest (financial inclusion index), with a correlation coefficient of 1.90%.

Table 3: Variable correlation matrix

	<i>ITS</i>	<i>InF</i>	<i>INFLAT</i>	<i>INVEST</i>	<i>DEG</i>	<i>QUAL_RE</i>
ITS	1,000					
IF	0.019	1,000				
INFLAT	0.219	0.039	1,000			
INVEST	0.023	-0.073	0.013	1,000		
DEG	-0.208**	-0.136	0.024	0.486***	1,000	
QUAL_RE	0.011	0.300	0.000	0.134	-0.126	1.00
*** p<0.01, ** p<0.05, * p<0.1						

Source: BCEAO, WDI, Author's calculations

4.3. Pesaran (2007) dependence and stationarity test

The model analyzing the effect of financial inclusion on structural transformation is subjected to several tests to provide details on its estimation. In this study, we employ panel tests such as Pesaran's (2007) cross-sectional dependence and stationarity tests, since we are dealing with panel data. These tests allow for an appropriate choice of estimator to capture the true effect, given that these countries form an economically interacting union.

For the cross-sectional dependence test, the results indicate the presence of dependence among the countries in the region, as the p-values associated with the CD statistic are all below 5% for the majority of variables, leading to the rejection of the null hypothesis (**Table 4**).

The results of the stationarity test are also presented in **Table 4**. They show that most variables are stationary at level at the 1% and 5% significance thresholds. For the remaining variables, most are also stationary at level. We can therefore conclude that all variables are stationary.

Table 4: Spatial dependence test and Pesaran (2007) stationarity test

Variables	Cross-sectional (CD) test	Pesaran (2007) CIPS unit root test				
	CD-Stats	Level CIPS	CV 10%.	CV 5%.	CV1%.	
ITS	2.840	-3.817***	-2.21	-2.34	-2.60	I (0)
IF	19.650***	-3.638***	-2.21	-2.34	-2.60	I (1)
DEG	0.206	-3.730***	-2.21	-2.34	-2.60	I (1)
IINFLAT	15.461***	-3.733***	-2.21	-2.34	-2.60	I (0)
IINVEST	0.581	-2.406**	-2.21	-2.34	-2.60	I (0)
QUAL_RE	-0.304	-4.318***	-2.21	-2.34	-2.60	I (1)

Source: Author’s calculations

4.4. Cointegration Test

The cointegration test is essential because some variables that are stationary in differences may exhibit a long-term relationship. To examine this relationship, we employ Pedroni’s (2004) cointegration test. This test is suitable for our study for several reasons, as it accounts for the heterogeneous characteristics of the panel.

The results of the test indicate the existence of a cointegration relationship among the variables used in this study. Two variables are considered cointegrated if they are integrated of the same order. A variable is said to be integrated of order *d* if it must be differenced *d* times to achieve stationarity.

Table 5: Pedroni (2004) cointegration test

Pedroni (2004)		
	Statistic	P-Value
Modified Phillips Perron	3.965	0.000
Phillips Perron	-13.081	0.000
Dickey Fuller Augmented	-7.095	0.00

Source: Author

4.6. Econometric and Economic Analysis

This section of the study focuses primarily on the analysis of results obtained from the Driscoll-Kraay standard errors (PCSE) regression. First, the econometric results obtained from our estimations are presented. Then, both econometric and economic interpretations are discussed. Finally, we conclude with recommendations aimed at promoting sustainable, stable, and equitable economic growth.

The results of the econometric estimation using Driscoll-Kraay standard errors (PCSE) are presented in **Table 6** below. This table shows the direct effect of financial inclusion on structural transformation in the West African Economic and Monetary Union (WAEMU). The last four columns of the table present, respectively, the coefficients, standard errors, t-statistics, and significance levels of the estimated coefficients. The Wald test statistic (15.57) is relatively low but significant at the 5% level, indicating that the results are overall significant and that at least one of the explanatory variables has a statistically significant effect.

The main result (column 2) indicates that the effect of financial inclusion on structural transformation is positive but not statistically significant. This suggests that financial inclusion has not succeeded in stimulating structural transformation—that is, it has not promoted sectoral productivity or the reallocation of labor from the agricultural sector to high-productivity sectors within WAEMU. This may be explained, on the one hand, by a delay or absence of effective transmission mechanisms (maturation effect), the provision of financial products unsuitable for economic actors, and, on the other hand, by the use of financial services being mainly limited to consumption rather than productive investment. Ideally, financial services are a means to promote sustainable and continuous economic growth, but in WAEMU, they are more frequently used in non-productive activities. This appears contradictory to Keynesian theory, which posits that financing policy is a necessary tool for economic growth, innovation financing, and the development of aggregate production. For example, credit provided through financial services is considered a lever for initiating the virtuous cycle of development and investment (Bagehot, 1873; Vanassche, 2004; Beauclair et al., 2024).

Regarding the control variables, the inflation variable shows a positive and statistically significant sign at the 1% level. This indicates that moderate inflation can stimulate economic activity by facilitating the adjustment of relative prices and the reallocation of productive resources. Investment remains positive and highly significant at the 5% level, suggesting that an increase in investment leads to a significant rise in the aggregate productivity of economic sectors (Essotanam Mamba et al., 2020). This supports the idea that investment in infrastructure, machinery, and human capital promotes the transfer of resources toward high-productivity sectors (Megbowon et al., 2019; Essotanam Mamba et al., 2020; Beauclair et al., 2024).

As for public expenditure and institutional quality regulation, both show negative and statistically significant signs. This indicates that public spending and institutional quality regulation are negatively correlated with structural transformation (Okey, 2019; Essotanam Mamba et al., 2020). This could be due to poor targeting of public expenditure, which is overly focused on low-productivity sectors. Improving institutional quality through reforms could play a critical role in efficiently reallocating resources toward high-productivity sectors.

Table 6: Estimate showing the direct effect of financial inclusion on structural transformation in the West African Economic and Monetary Union

<i>VARIABLES</i>	<i>Coefficients</i>	<i>Std. Err</i>	<i>t-statistic</i>	<i>P-value</i>
IF	0.025	0.350	0.070	0.942
INFLAT	9.045	3.532	2.560	0.010
INVEST %GDP	2,512	1,319	1.910	0.057
DEG GDP	-12,581	5,286	-2.380	0.017
QUAL_RE	-16,592	32.961	-0.500	0.615
Constant	108,966	63,911	1.700	0.088
Observations	135			
Number of countries	8			
Wald test (chi2)	13.57			0.018

CONCLUSION AND RECOMMENDATIONS

This study analyzes the effect of financial inclusion on structural transformation in the West African Economic and Monetary Union (WAEMU) over the period 2006–2022. The value added of the agricultural, industrial, and service sectors, along with the employment shares in these sectors, are used to calculate the structural transformation index according to the shift-share method. Investment, inflation, public expenditure, and institutional regulation are included as control variables. Using PCSE as the main estimation technique, the results indicate that financial inclusion does not significantly contribute to the aggregate productivity of economic sectors in WAEMU countries. Furthermore, the effects of the control variables vary across different factors.

The findings suggest that WAEMU countries have not succeeded in establishing an effective transmission mechanism in an environment conducive to financial inclusion to trigger structural transformation. This highlights the

ambiguous results found in previous studies regarding the impact of financial inclusion on overall economic growth processes. The results primarily suggest the need to rethink financial inclusion strategies by more closely linking financial services to production and by developing financial literacy programs for economic agents in productive sectors. In addition, synergy should be established with budgetary reforms to support production.

References

- Ali, A., & Msadfa, Y. (2016). Industrial policy, structural change and global value chains participation: Case study of Morocco, *Tunisia and Egypt*.
- Amadou, A., & Aronda T. (2020). Structural Transformation in Sub-Saharan Africa: A Comparative Analysis of Sub-Regional Performance. *African Journal of Economic Studies and Management*.
- Beauclair Atadouanla S., Constant F. D., Elie N. N., Serge P. M., & Steve D. M. (2024). Effect of financial inclusion on economic growth in sub-Saharan Africa: a comparative analysis based on certain sociocultural factors. *Canadian Journal of Development Studies / Revue canadienne d'études du développement*. Volume 45, 2024 - Issue 3. <https://doi.org/10.1080/02255189.2023.2291028>
- Beck, T. (2016, November). Financial Inclusion—Measuring progress and progress in measuring. In This paper was written for the Fourth IMF Statistical Forum “Lifting the Small Boats: Statistics for Inclusive Growth. *Cass Business School, City, University of London*, CEPR, and CESifo.
- Chithra, N. and Selvam, M. (2013). Determinants of financial inclusion: An empirical study on the inter-state variations in India. Available at *SSRN 2296096*.
- De Vries, G., Timmer, M., & De Vries. K. (2015). Structural transformation in Africa: Static gains, dynamic losses. *The Journal of Development Studies*, 51(6), 674-688.
- Demirgüç-Kunt, A., and Klapper, L. (2013). Measuring financial inclusion: Explaining variation in use of financial services across and within countries. *Brookings Papers on Economic Activity*, 279–340.
- Essotanam Mamba, Moukpè Gniniguè & Essossinam Ali (2020) Effect of foreign direct investment on structural transformation in West African Economic and Monetary Union (WAEMU) countries, *Cogent Economics & Finance*, 8:1, 1783910, <https://doi.org/10.1080/23322039.2020.1783910>
- Fungacova, Z., & Weill, L. (2015). Understanding financial inclusion in China. *China Economic Review*, 34, 196–206.

- Jie, L., & Shamshedin, A. (2019). The impact of foreign direct investment on industrialization in Ethiopia. *International Journal of Academic Research in Business and Social Sciences*, 9(7), 726-742. <https://doi.org/10.6007/IJARBS/v9-i7/6175>
- Keller, W. (2010). International trade, foreign direct investment, and technology spillovers. *Handbook of the economics of innovation*. Elsevier.
- KOUET BI.K.G.C. (2021) "The effects of financial inclusion on economic growth in Côte d'Ivoire," *Revue Française d'Economie et de Gestion* "Volume 2: Number 11" pp: 109-130.
- Mac Kinnon, R. (1973). "Money and Capital in Economic Development." The Brookings Institution, *Washington, D.C.*
- McMillan, M., Rodrik, D., (2011). Globalization, structural change and productivity. In: Bacchetta, M., Jansen, M. (Eds.), *Making Globalization Socially Sustainable*, Chapter 2. Sustainable, Chapter 2. ILO and WTO, *Geneva, Switzerland*
- Megbowon, E., Mlambo, C., & Adekunle, B. (2019). Impact of Chinese outward FDI on industrialization in sub-Saharan Africa: Evidence from 26 countries. *Cogent Economics & Finance*, 7(1), 1681054: . <https://doi.org/10.1080/23322039.2019.1681054>
- Mühlen, H., & Escobar, O. (2020). The role of FDI in structural change: Evidence from Mexico. *The World Economy*, 43(3), pp: 557-585. <https://doi.org/10.1111/twec.12879>.
- Okey, M. K. (2019). Does international migration promote industrial development? Evidence from Africa 1980-2010. *International Economic Journal*, 33(2), pp: 310-331. <https://doi.org/10.1080/10168737.2019.1585902>
- Sarma, M., and Pais, J. (2011). Financial inclusion and development. *Journal of international development*, 23,5, pp: 613-628.
- SENE.M & AL (2023) "The impact of financial inclusion on economic growth in Senegal," *Revue Française d'Economie et de Gestion* "Volume 4: Number 12" pp:75–92.
- Tuesta, D., Sorensen, G., Haring, A. and Camara, N. (2015). Financial inclusion and its determinants: the case of Argentina (No. 1503). Pp: 1-26.
- Vanassche, E. 2004. The Impact of International Financial Integration on Industry Growth, *Katholieke Universiteit Leuven*, pp. 1–40.
- Yves Hounguevou and Jude Eggoh (2022). Financial inclusion and economic growth: A new empirical investigation of non-linearity. *Revue d'Analyse des Politiques Economiques et Financières*, ISSN: 1840 - 8222 Volume 5, pp: 90 – 102.