



# The African Continental Free Trade Area and Foreign Direct Investment in West Africa: A Panel Data Analysis

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## ABSTRACT

This study examines the impact of the African continental free trade area (AfCFTA) on foreign direct investment (FDI) inflows to West African countries. Using a difference-in-differences approach with panel data from 25 African countries over the period 2015-2024, we compare FDI trends in 15 ECOWAS member states (treatment group) with 10 Central African countries (control group) before and after AfCFTA's operational launch in January 2021. Our fixed effects regression analysis reveals a positive association between AfCFTA implementation and FDI inflows, with ECOWAS countries experiencing approximately 2.4% points higher FDI (as a share of GDP) relative to the control group in the post-implementation period. While this effect approaches statistical significance at the 10% level, the results suggest economically meaningful potential benefits of regional trade integration for attracting foreign investment. Inflation emerges as a significant determinant of FDI, with higher inflation rates negatively associated with investment inflows. These findings contribute to the emerging literature on AfCFTA's economic effects and provide policy-relevant insights for West African governments seeking to leverage regional integration for investment promotion.

**Keywords:** African Continental Free Trade Area, Foreign Direct Investment, Economic Community of West African States, West Africa, Difference-in-Differences, Regional Integration

**JEL Classification:** F21, F15, O55, C23

## 1. INTRODUCTION

The African continental free trade area (AfCFTA), which became operational on January 01, 2021, represents the world's largest free trade area by number of participating countries. By creating a single continental market of 1.4 billion people with a combined GDP exceeding \$3.4 trillion, AfCFTA aims to boost intra-African trade, promote industrialization, and attract foreign direct investment (FDI) to the continent (African Union, 2018; Ajibo, 2025; Vutula, 2025) AfCFTA. According to World Bank estimates AfCFTA could raise Africa's exports by 32% and increase foreign direct investment by 111-159% by 2035 (Fofack, 2024). Intra-African exports are projected to rise by 109%, driven primarily by manufactured goods (Fofack, 2024). For West African economies, which have historically relied on natural resource exports and faced significant barriers to regional trade, AfCFTA offers potential

pathways to economic diversification and enhanced investment attractiveness (Fofack, 2021; Vutula, 2025).

Foreign direct investment plays a crucial role in African development by providing capital, technology transfer, employment opportunities, and integration into global value chains (Kyereboah-Coleman, 2025; UNCTAD, 2023). However, FDI flows to Africa have remained modest relative to other developing regions, constrained by factors including political instability, weak institutions, limited market size, and trade barriers (Asiedu, 2006; Ofori and Asongu, 2021). Regional trade agreements like AfCFTA may help address the market size constraint by creating larger, more attractive investment destinations.

This study examines whether AfCFTA's implementation has affected FDI inflows to West Africa, specifically focusing on

the Economic Community of West African States (ECOWAS) region. Established in 1975, ECOWAS represents one of Africa's most mature regional economic communities, comprising 15 member states with a combined population exceeding 400 million and aggregate GDP approaching \$700 billion. The region is characterized by significant economic diversity, ranging from Nigeria (Africa's largest economy and a major oil producer) to smaller service-oriented economies like Cabo Verde and Gambia. ECOWAS member states demonstrated strong early support for AfCFTA, with Ghana hosting the AfCFTA Secretariat and other West African nations among the first to ratify the agreement (Okoro et al., 2023; Tralac, 2024). The ECOWAS commission coordinated member state positions during negotiations, using the ECOWAS common external tariff as a basis for AfCFTA tariff negotiations and leveraging existing regional integration infrastructure to facilitate implementation (Bisong, 2020; Tralac, 2024). This institutional foundation, combined with the region's strategic geographic position and established trade corridors, positions ECOWAS as a potential bellwether for AfCFTA's investment effects across the continent. Our study exploits this setting as a natural experiment to evaluate the trade agreement's investment effects by comparing ECOWAS countries with a control group of Central African nations that, while also AfCFTA signatories, represent a distinct regional bloc with different economic characteristics and integration trajectories.

Our analysis employs a difference-in-differences (DiD) methodology with panel data spanning 2015-2024, covering 6 years before and 4 years after AfCFTA's operational launch. Recent methodological advances have highlighted important considerations for DiD estimation with staggered adoption and heterogeneous treatment effects (Callaway and Sant'Anna, 2021; Goodman-Bacon, 2021). We address these concerns through our research design, which features a clear treatment date and careful control group selection. We find that ECOWAS countries experienced approximately 2.4% points higher FDI inflows (as a share of GDP) relative to the control group following AfCFTA implementation.

This study contributes to the literature in several important ways. First, we provide early empirical evidence on AfCFTA's FDI effects, addressing a significant gap given the agreement's recent implementation and the predominance of simulation-based projections in existing research. While studies such as World Bank (2020) and Ehandi et al. (2022) have modeled potential FDI gains using computable general equilibrium approaches, ours is among the first to examine realized investment patterns using post-implementation data. Second, we focus specifically on West Africa, a region facing unique challenges including recent political instability, the 2024 withdrawal announcement of Mali, Burkina Faso, and Niger from ECOWAS, and the ongoing security crisis in the Sahel, factors that may complicate the investment benefits of regional integration. Understanding how FDI responds to trade agreements in such challenging environments has important implications for policymakers throughout the developing world. Third, our DiD approach with a carefully selected control group offers a more rigorous causal identification strategy than simple before-after comparisons or cross-sectional analyses that cannot

account for confounding temporal trends. By comparing ECOWAS countries to a control group facing similar continental-level conditions but different regional integration dynamics, we can more credibly isolate the specific effects of coordinated AfCFTA implementation within the West African context.

The remainder of this paper is organized as follows. Section 2 reviews the relevant literature on regional trade agreements and FDI. Section 3 describes our data and methodology. Section 4 presents empirical results. Section 5 discusses the findings and their policy implications. Section 6 concludes.

## 2. LITERATURE REVIEW

### 2.1. Regional Trade Agreements and FDI

The relationship between regional trade agreements (RTAs) and FDI has been extensively studied in international economics (Te Velde and Bezemer, 2004; Wang et al., 2025). Theoretical frameworks suggest multiple channels through which RTAs may affect FDI. The market size hypothesis posits that RTAs create larger integrated markets, making member countries more attractive destinations for market-seeking FDI (Blomström and Kokko, 1997; Medvedev, 2012). By eliminating internal trade barriers and creating unified regulatory frameworks, RTAs effectively expand the potential consumer base that foreign investors can access from a single production location. The tariff-jumping hypothesis suggests that external investors may establish production facilities within trade blocs to avoid trade barriers, particularly when common external tariffs are maintained (Motta and Norman, 1996; Blomström and Kokko, 1997). Additionally, the efficiency-seeking hypothesis contends that RTAs facilitate vertical FDI by reducing transaction costs associated with cross-border production networks, enabling multinational corporations to optimize their supply chains across member countries (Osnago et al., 2016). Wang et al. (2025) provide comprehensive evidence from 224 economies demonstrating that deep RTAs with investment provisions generate substantially larger FDI effects than shallow agreements focused solely on tariff reductions.

Empirical evidence on RTA-FDI relationships has been mixed but generally supportive of positive associations. Medvedev (2012) found that RTAs generally increase FDI flows to member countries, with effects varying by agreement depth and member country characteristics, noting that the magnitude of FDI gains depends critically on the credibility and enforcement mechanisms embedded within agreements. Te Velde and Bezemer (2004) examined RTAs in developing regions and found positive but heterogeneous effects depending on institutional quality and complementary policies, emphasizing that trade agreements alone are insufficient without supportive domestic reforms. More recent studies have emphasized the importance of "deep" integration provisions covering investment protection, services liberalization, and regulatory harmonization (Idu et al., 2025; Osnago et al., 2016). Deep agreements that include investor-state dispute settlement mechanisms, intellectual property protections, and competition policy frameworks tend to generate significantly larger investment effects than shallow preferential trade arrangements. Ehandi et al. (2022) specifically modeled

how AfCFTA's investment provisions could amplify FDI effects beyond tariff reductions alone, projecting that the Protocol on Investment could add 14-15% points to baseline FDI gains. The 2024 EY Africa Attractiveness Report confirms that continental trade agreements are reshaping investment patterns, with FDI in Africa recovering by 7% year-on-year in 2023, driven significantly by investor confidence in regional integration frameworks.

## 2.2. FDI Determinants in Africa

The literature on FDI determinants in Africa has identified several key factors shaping investment location decisions. Asiedu (2006) emphasized the importance of natural resources, market size, infrastructure, and institutional quality, noting that Africa's traditional dependence on extractive sector FDI has limited broader developmental impacts. Political stability and governance have been consistently found to influence investment decisions, with investors demonstrating sensitivity to regime changes and policy uncertainty (Asongu et al., 2018; Asiedu, 2006). Macroeconomic factors including inflation, exchange rate stability, and trade openness also play significant roles in shaping investor perceptions of risk and return (Morisset, 2000; Asiedu, 2006). Korsah et al. (2025) provide updated evidence from West Africa specifically, finding that infrastructure quality, regulatory efficiency, and access to skilled labor have become increasingly important determinants relative to natural resource endowments as investors seek to establish manufacturing and service operations. Recent studies have examined nonlinear relationships between FDI and growth in Sub-Saharan Africa, finding threshold effects that depend on absorptive capacity indicators including human capital development and financial sector depth (Asafo-Agyei and Kodongo, 2022). Obeng-Amponsah and Owusu (2025) extend this analysis to Ghana specifically, demonstrating that FDI generates significant technology transfer effects only when accompanied by investments in domestic research capacity and technical education.

Regional integration efforts in Africa have shown varying success in attracting FDI, with outcomes depending critically on implementation fidelity and complementary policy environments. Studies of ECOWAS have found limited integration effects on investment historically, partly due to incomplete implementation of trade liberalization protocols and persistent non-tariff barriers that undermine investor confidence in market access commitments (Korsah et al., 2025; Obeng-Amponsah and Owusu, 2025). The ECOWAS trade liberalization scheme, despite its formal provisions for duty-free movement of goods, has been hampered by complex rules of origin requirements and customs procedures that increase transaction costs for cross-border operations. However, the Common Market for Eastern and Southern Africa (COMESA) has demonstrated positive investment effects following deeper integration, particularly in sectors benefiting from regional value chain development (Habeenzu and Epo, 2025; Simola et al., 2025). These findings suggest that the depth and credibility of integration commitments matter substantially for FDI outcomes. Iheonu et al. (2024) further demonstrate that the source and type of FDI matter for productivity outcomes in Sub-Saharan Africa, with evidence suggesting that FDI originating from within Africa generates stronger spillover effects in services and technology sectors compared to extractive-focused investment from external sources.

The 2024 African Development Bank Regional Economic Outlook for West Africa emphasizes that communications infrastructure investment in the region has increased by more than 125% between 2018 and 2024, creating new opportunities for FDI in digital services and technology-enabled manufacturing.

## 2.3. AfCFTA and Expected Investment Effects

AfCFTA represents the most ambitious African integration project to date, aiming to eliminate tariffs on 90% of goods, liberalize services, and establish continent-wide rules on investment, competition, and intellectual property (Ajibo, 2025; African Union, 2018). By connecting 1.4 billion people across 55 countries, AfCFTA creates the world's largest free trade area by membership, offering unprecedented potential for market expansion and investment diversification. The agreement includes three phases of implementation: Phase I covers trade in goods and services; Phase II addresses investment, competition policy, and intellectual property rights; and Phase III will tackle e-commerce and free movement of business persons. Economic modeling by the World Bank (2020) projected that AfCFTA could increase FDI to Africa by 111-159% under full implementation, with manufacturing and services sectors benefiting most substantially from improved market access and regulatory harmonization. The AfCFTA Investment Protocol, adopted in 2023, specifically aims to promote, facilitate, and protect investments across member states while reducing policy uncertainty and establishing investor protections (Vutula, 2025). However, these projections depend heavily on implementation depth and complementary reforms including infrastructure development, trade facilitation measures, and institutional capacity building.

Early assessments of AfCFTA implementation have noted both meaningful progress and significant challenges. Geda and Yimer (2023) used gravity models to estimate that AfCFTA could increase intra-African exports by approximately 19%, though they caution that benefits depend on complementary industrial policies and infrastructure investments. Fofack (2024) provides more optimistic projections, suggesting that intra-African exports could rise by 109% under full implementation, driven primarily by manufactured goods. The agreement's rules of origin negotiations were completed in 2022, and guided trade under AfCFTA protocols began in several countries including Ghana, Rwanda, and Kenya. By early 2025, over 50 countries had ratified the agreement, demonstrating strong political commitment to continental integration (Tralac, 2024). However, infrastructure constraints, non-tariff barriers, and varying implementation capacities across countries continue to impede trade and investment flows (Kyereboah-Coleman, 2025; UNCTAD, 2023). The ODI-AfCFTA Secretariat report on FDI trends emphasizes that intra-African FDI is notably concentrated in services sectors such as communications, finance, and tourism, suggesting significant potential for AfCFTA to stimulate investment diversification away from traditional extractive industries. Our study provides early empirical evidence on whether these initial implementation steps have begun affecting FDI patterns in West Africa specifically, addressing a critical gap in the literature regarding the agreement's realized versus projected impacts.

### 3. MATERIALS AND METHODS

#### 3.1. Data Sources and Sample

This study uses panel data covering 25 African countries over the period 2015-2024, yielding 250 country-year observations. The treatment group consists of 15 ECOWAS member states: Benin, Burkina Faso, Cabo Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, and Togo. The control group comprises 10 Central African countries: Angola, Burundi, Cameroon, Central African Republic, Chad, Democratic Republic of Congo, Republic of Congo, Equatorial Guinea, Gabon, and São Tomé and Príncipe.

The selection of Central African countries as the control group is motivated by several methodological considerations. First, these countries are also AfCFTA signatories, ensuring that both groups face similar continental-level policy environments while differing in their regional economic community affiliations (African Union, 2018; Tralac, 2024). As of August 2024, 48 of 54 African Union member states had deposited their instruments of ratification, including all countries in both our treatment and control groups. This controls for any general effects of AfCFTA participation while isolating the specific impact of ECOWAS membership and the region's coordinated implementation efforts. Second, Central African economies share structural similarities with West African economies, including dependence on primary commodity exports, comparable levels of institutional development, and similar colonial histories that shaped their integration into global markets. UNCTAD (2025) documents that commodity dependence is particularly pronounced in both Middle/Western Africa and Central Africa, with most countries earning over 80% of export revenues from primary commodities. Usman and Landry (2021) similarly note that West and Central Africa have less diversified export baskets compared to Southern and East Africa, with raw materials comprising the bulk of exports. Third, the Central African region, organized primarily through the Economic Community of Central African States (ECCAS) and the Central African Economic and Monetary Community (CEMAC), represents a distinct integration trajectory that did not experience the same coordinated AfCFTA implementation push as ECOWAS, where the regional commission actively coordinated member state positions and used the ECOWAS Common External Tariff as a foundation for negotiations (Bisong, 2020; Tralac, 2024). While ECOWAS negotiates within the AfCFTA as a customs union bloc with a unified tariff offer, CEMAC countries submitted tariff offers collectively but without the same level of institutional coordination that characterized ECOWAS preparations. Fourth, both regions face comparable development challenges including infrastructure deficits, governance constraints, and exposure to commodity price volatility, reducing concerns that unobserved heterogeneity drives differences in FDI trends. The African Development Bank estimates that Africa requires an additional \$130-170 billion annually to meet infrastructure needs, with a financing gap of \$68-108 billion (AfDB, 2018), while the World Bank documents that governance quality (as measured by the Worldwide Governance Indicators) is a primary driver of private participation in infrastructure across African countries (IFC, 2023).

Data on FDI net inflows (as percentage of GDP) and macroeconomic indicators were obtained from the World Bank's world development indicators (WDI) database. Institutional quality measures were constructed from the World Bank's worldwide governance indicators (WGI), averaging six dimensions: Control of corruption, government effectiveness, political stability, regulatory quality, rule of law, and voice and accountability. Government debt data were obtained from the International Monetary Fund's World Economic Outlook database.

#### 3.2. Variables

##### 3.2.1. Dependent variable

FDI inflows as a percentage of GDP (*fdi\_inflows*) measures the relative importance of foreign investment to each economy, allowing comparison across countries of different sizes.

##### 3.2.2. Treatment variables

We construct a difference-in-differences framework with three key variables: (1) ECOWAS, a binary indicator for treatment group membership; (2) Post, a binary indicator for the post-AfCFTA period (2021-2024); and (3) DiD, the interaction term (ECOWAS  $\times$  Post) capturing the treatment effect of AfCFTA on ECOWAS countries relative to the control group.

##### 3.2.3. Control variables

Following the FDI determinants literature, we include several time-varying covariates that theory and prior research identify as important predictors of investment flows. GDP growth rate serves as a proxy for market dynamism and economic momentum, capturing the forward-looking expectations that influence investment decisions (Asiedu, 2006). Inflation rate measures macroeconomic stability, with high or volatile inflation signaling policy uncertainty and eroding the real returns to investment (Morisset, 2000). Government debt as a share of GDP reflects fiscal sustainability and sovereign risk; elevated debt levels may crowd out private investment and signal potential future taxation or macroeconomic instability. The institutional quality index captures governance and business environment factors that affect transaction costs, property rights security, and regulatory predictability, dimensions that Asongu et al. (2018) identify as particularly important for FDI location decisions in African contexts. In robustness specifications, we additionally control for GDP per capita as a measure of market purchasing power and development level, and population as a measure of market size, though these variables are more time-invariant and largely absorbed by country fixed effects.

#### 3.3. Empirical Strategy

We employ a difference-in-differences approach within a panel fixed effects framework, which is well-suited for evaluating policy interventions when randomized controlled trials are infeasible. Recent econometric literature has highlighted potential issues with two-way fixed effects estimators when treatment timing varies across units or treatment effects are heterogeneous (de Chaisemartin and D'Haultfœuille, 2020; Goodman-Bacon, 2021). Our setting mitigates these concerns because AfCFTA implementation occurred simultaneously for all treated units in January 2021, providing a clean treatment date without staggered adoption. The identifying assumption underlying our approach is that, absent AfCFTA's

implementation, FDI trends in ECOWAS countries would have evolved parallel to those in Central African countries. While this parallel trends assumption cannot be directly tested for the post-treatment period, we assess its plausibility by examining pre-treatment FDI trajectories in both groups. Visual inspection of FDI trends from 2015 to 2020 reveals broadly similar patterns, with both regions experiencing modest FDI growth punctuated by commodity price-related fluctuations, lending credibility to the parallel trends assumption. The baseline specification is:

$$FDI_{it} = \alpha_i + \beta_1 DiD_{it} + \beta_2 X_{it} + \epsilon_{it} \quad (1)$$

where  $FDI_{it}$  is FDI inflows for country  $i$  in year  $t$ ;  $\alpha_i$  represents country fixed effects absorbing time-invariant country characteristics;  $DiD_{it}$  is the difference-in-differences interaction term;  $X_{it}$  is a vector of control variables; and  $\epsilon_{it}$  is the error term. The coefficient  $\beta_1$  captures the average treatment effect of AfCFTA on FDI in ECOWAS countries relative to the control group.

Standard errors are clustered at the country level to account for serial correlation within panels, following the recommendations of Bertrand et al. (2004) who demonstrated that failure to account for serial correlation can lead to severely understated standard errors and over-rejection of null hypotheses in difference-in-differences applications. With 25 clusters, we have sufficient degrees of freedom for reliable cluster-robust inference, though we acknowledge that clustering with a small number of clusters can still produce some distortion. We estimate four model specifications, progressively adding GDP per capita and population controls to assess robustness and ensure that our main results are not sensitive to model specification choices.

We conduct several robustness checks to assess the sensitivity of our findings. First, we estimate random effects models that assume country-specific effects are uncorrelated with the regressors, allowing us to compare results across estimation approaches using Hausman specification tests. Second, we implement two-way fixed effects specifications including both country and year fixed effects, which control for common time shocks affecting all countries (such as global FDI trends or commodity price movements) while maintaining country-specific intercepts. Third, we examine the stability of coefficient estimates when excluding potentially influential observations, including outliers with extreme FDI values such as Equatorial Guinea and Liberia, which have experienced volatile resource-related investment flows. Regarding missing data, our regression sample includes 242 of the possible 250 country-year observations (96.8% coverage). The eight missing observations result from incomplete inflation data for certain country-years, which were handled through listwise deletion. Sensitivity analysis including these observations with imputed inflation values produces substantively similar results, suggesting that missing data patterns do not materially affect our conclusions.

## 4. RESULTS

### 4.1. Descriptive Statistics

Table 1 presents summary statistics for the full sample and by treatment status. The average FDI inflow across all countries is

3.69% of GDP, with substantial variation (standard deviation of 5.60) reflecting the heterogeneous nature of African economies and their diverse resource endowments. ECOWAS countries show slightly higher average FDI (3.84%) compared to the control group (3.46%), though both groups exhibit considerable heterogeneity. The range of FDI values (from -17.29% to 37.32% of GDP) illustrates the volatility of investment flows to these economies, with negative values representing disinvestment episodes and extreme positive values typically associated with major resource extraction projects. GDP growth averaged 3.27% across the sample period, though the standard deviation of 3.80 reflects significant variation driven by commodity price cycles, political events, and the COVID-19 pandemic's differential impacts. Inflation averaged 7.00% with substantial variation, while government debt averaged 57.05% of GDP, a level that has raised sustainability concerns for several countries in the sample. The institutional quality index averages -0.77 on the World Governance Indicators scale (ranging from approximately -2.5 to +2.5), indicating that most sample countries score below the global median on governance dimensions, consistent with the broader literature on institutional challenges facing African economies.

Table 2 presents the difference-in-differences summary, showing mean FDI inflows by treatment group and period. ECOWAS countries experienced an increase in average FDI from 3.38% (pre-AfCFTA) to 4.52% (post-AfCFTA), a gain of 1.14% points. In contrast, the control group saw FDI decline from 4.12% to 2.47%, a decrease of 1.65% points. This divergent pattern is notable: While ECOWAS countries attracted increased investment following AfCFTA's operational launch, Central African countries experienced declining FDI during the same period, potentially reflecting the global FDI contraction associated with COVID-19 recovery and geopolitical uncertainty, from which ECOWAS countries appear to have been partially insulated. The raw DiD estimate (the difference between these changes) is 2.79% points, suggesting a substantial positive treatment effect before controlling for other factors. This unconditional estimate represents approximately 76% of the sample mean FDI, indicating an economically significant association between AfCFTA implementation and improved investment outcomes for ECOWAS countries relative to the counterfactual trend observed in Central Africa.

**Table 1: Descriptive statistics**

Variable	Obs	Mean	Standard deviation	Min	Max
FDI inflows (% GDP)	250	3.69	5.60	-17.29	37.32
GDP growth (%)	250	3.27	3.80	-20.81	15.84
Inflation (%)	242	7.00	8.58	-3.32	54.14
Debt (% GDP)	250	57.05	25.25	14.93	149.52
Institutional quality	250	-0.77	0.52	-1.69	0.80

Sample includes 15 ECOWAS countries (treatment) and 10 Central African countries (control), 2015-2024

**Table 2: FDI Inflows by group and period (mean % of GDP)**

Group	Pre-AfCFTA	Post-AfCFTA	Difference
ECOWAS (treatment)	3.38	4.52	+1.14
Central Africa (control)	4.12	2.47	-1.65
DiD estimate			+2.79

Pre-AfCFTA period is 2015-2020; Post-AfCFTA period is 2021-2024

## 4.2. Regression Results

Table 3 presents the main regression results from four panel fixed effects specifications. Model 1 includes the DiD term with basic controls (GDP growth, inflation, debt, and institutional quality). Models 2-4 progressively add GDP per capita and population to assess robustness.

The DiD coefficient is positive and consistent across all specifications, ranging from 2.11% to 2.42% points. In the full model (Column 4), the estimated AfCFTA effect is 2.415% points, indicating that ECOWAS countries experienced FDI inflows approximately 2.4% points higher (relative to GDP) compared to the control group after AfCFTA implementation. The t-statistic of approximately 1.68 (2.415/1.434) approaches significance at the 10% level but does not reach conventional thresholds.

Among control variables, inflation shows a statistically significant negative relationship with FDI across all models. A 1% point increase in inflation is associated with approximately 0.15% point decrease in FDI inflows. This finding aligns with the literature emphasizing macroeconomic stability as a key FDI determinant. GDP growth, debt, and institutional quality do not show statistically significant effects, though their signs are generally consistent with theoretical expectations.

## 5. DISCUSSION

Our findings suggest that AfCFTA implementation may be positively associated with FDI inflows to ECOWAS countries, though the evidence is suggestive rather than conclusive. The estimated effect of 2.4% points represents a substantial increase relative to the sample mean FDI of 3.7% of GDP, implying a potential increase of approximately 65% in relative FDI intensity. For a country like Ghana (2023 GDP approximately \$75 billion), this would translate to additional FDI of roughly \$1.8 billion annually, an economically meaningful magnitude consistent with World Bank (2020) and Echandi et al. (2022) projections of significant FDI gains from AfCFTA. Nigeria, with a GDP of approximately \$375 billion in current prices following the 2024 rebasing (NBS, 2025; World Bank, 2024), could potentially attract over \$11 billion in additional annual FDI under similar assumptions, fundamentally transforming its investment landscape. These estimates align with broader projections from the ISS African Futures program suggesting that AfCFTA implementation could boost continental FDI by up to 120%, with intra-African investment rising by approximately 85%

as regional value chains develop. The EY Africa Attractiveness Report (2024) documents that West Africa attracted substantial FDI growth in 2023, with renewable energy, software and IT services, and business services emerging as key investment sectors, precisely the diversified sectors that AfCFTA's market expansion is designed to promote.

The lack of robust statistical significance likely reflects several factors inherent to evaluating early-stage policy implementations. First, the post-treatment period of 4 years (2021-2024) is relatively short for detecting trade agreement effects, which typically materialize gradually as businesses adjust to new trading conditions, establish cross-border production networks, and investors gain confidence in the durability of integration commitments (Baier and Bergstrand, 2007). Research on the European Union's integration effects suggests that FDI responses to trade agreements often require 5-10 years to fully manifest as firms restructure their operations (Baier and Bergstrand, 2007; Medvedev, 2012). Second, the COVID-19 pandemic disrupted global FDI flows precisely during AfCFTA's 1<sup>st</sup> year of operation, introducing substantial noise into the data and potentially masking early integration effects. Global FDI declined by 42% in 2020 (UNCTAD, 2021; World Bank, 2020), with developing economies particularly affected, creating a challenging baseline against which to measure AfCFTA impacts. Third, with only 25 countries and substantial heterogeneity in FDI patterns (ranging from resource-dependent economies like Nigeria to service-oriented economies like Cabo Verde), statistical power to detect moderate effects is limited. Finally, the 2024 withdrawal announcement by Mali, Burkina Faso, and Niger from ECOWAS introduced additional uncertainty that may have dampened investor enthusiasm for the region, potentially counteracting positive AfCFTA effects in the most recent years of our sample period.

The sectoral composition of FDI flows to West Africa provides additional context for interpreting our results. According to the EY Africa Attractiveness Report (2024) and UNCTAD (2023), renewable energy, software and IT services, and business services collectively emerged as the leading sectors attracting foreign investment to Africa in 2023, representing a shift away from traditional extractive industry dominance. This sectoral diversification aligns with AfCFTA's objectives of promoting manufacturing and services investment rather than resource-seeking FDI alone. West Africa's growing urban population, projected to reach 436 million by 2050, and increasing mobile penetration exceeding 80% create attractive market conditions for technology-driven investment (ISS African Futures, 2025; World Bank, 2024). The region's projected growth rate of 3.5% in 2025,

**Table 3: Panel fixed effects regression results**

Variable	(1)	(2)	(3)	(4)
DiD (AfCFTA Effect)	2.111 (1.442)	2.321 (1.438)	2.199 (1.443)	2.415 (1.434)
GDP growth	0.033 (0.111)	0.029 (0.107)	0.034 (0.111)	0.031 (0.107)
Inflation	-0.149** (0.066)	-0.153** (0.068)	-0.145** (0.065)	-0.148** (0.067)
Debt	-0.009 (0.074)	-0.014 (0.074)	-0.006 (0.074)	-0.012 (0.075)
Institutional Quality	-1.547 (2.118)	-1.461 (2.111)	-1.451 (2.092)	-1.361 (2.085)
Observations	242	242	242	242
R <sup>2</sup> (within)	0.036	0.037	0.037	0.038

Clustered standard errors in parentheses. \*\*P<0.05. All models include country fixed effects

accelerating to 4.3% in 2026-2027 (IMF, 2025; World Bank, 2025), combined with ongoing infrastructure investments including the Abidjan-Lagos corridor highway development, suggest that the investment environment continues to improve in ways that should amplify AfCFTA's effects over time.

Despite the statistical limitations, our results carry several important policy implications for West African governments seeking to maximize investment benefits from regional integration. First, the positive point estimates suggest that continued implementation of AfCFTA commitments may yield investment benefits, providing motivation for addressing remaining barriers to trade and investment including complex customs procedures, divergent regulatory standards, and infrastructure deficits. The African Development Bank's 2025 technical session with ECOWAS emphasized that intra-regional trade currently accounts for only 9% of imports and 10% of exports in West Africa (AfDB, 2025; ECOWAS Commission, 2024). These figures that underscore the substantial room for improvement and the potential gains from deeper integration. Second, the significant negative effect of inflation underscores that regional integration alone is insufficient; macroeconomic stability remains fundamental to investment attractiveness regardless of preferential market access provisions (Asafo-Agyei and Kodongo, 2022; Morisset, 2000). Countries experiencing high inflation rates may find that the investment benefits of AfCFTA are substantially diminished unless accompanied by credible monetary policy frameworks. Third, our results suggest that policymakers should focus on the quality of integration implementation rather than merely formal ratification, investing in trade facilitation infrastructure, harmonized standards, and institutional capacity to administer preferential trade provisions effectively. The ECOWAS Regional Economic Outlook (2024) identifies transport and communications infrastructure as essential levers for realizing integration benefits, projecting that infrastructure improvements could increase intra-regional trade by 10-15% by 2025.

This study has several limitations that suggest directions for future research. The short post-implementation period limits our ability to capture longer-term effects that may emerge as AfCFTA implementation deepens and investors gain confidence in the agreement's durability; revisiting this analysis with additional years of data would strengthen conclusions substantially. Our control group of Central African countries, while providing a reasonable counterfactual, differs from ECOWAS in ways that may not be fully captured by our controls, including different colonial histories, varying resource endowments, and distinct integration trajectories through CEMAC and ECCAS. Alternative identification strategies, such as synthetic control methods constructing weighted combinations of non-African developing countries or event studies following Callaway and Sant'Anna (2021), could provide complementary evidence and address potential violations of the parallel trends assumption. Future research might also examine heterogeneous effects across countries based on initial integration depth, infrastructure quality, or governance indicators, as the benefits of regional trade agreements often vary substantially with absorptive capacity (Iheonu et al., 2024). Sectoral analysis distinguishing between

FDI in manufacturing, services, and extractive industries would illuminate the mechanisms through which AfCFTA affects investment decisions and whether the agreement is achieving its goal of promoting diversified, value-adding investment. Finally, examination of intra-African FDI flows specifically, which the ODI-AfCFTA Secretariat report identifies as concentrated in services sectors, would provide insight into whether AfCFTA is fostering the regional value chain development that distinguishes deep integration from shallow preferential arrangements.

## 6. CONCLUSION

This study provides early empirical evidence on the relationship between AfCFTA implementation and FDI inflows to West Africa, contributing to the emerging body of research on Africa's most ambitious regional integration initiative. Using a difference-in-differences approach with panel data from 25 African countries over 2015-2024, we find that ECOWAS countries experienced approximately 2.4% points higher FDI (relative to GDP) compared to a Central African control group following AfCFTA's operational launch in 2021. While this effect approaches but does not reach conventional statistical significance, the consistent positive estimates across specifications suggest economically meaningful potential benefits that warrant continued monitoring as implementation progresses. The magnitude of our estimated effect aligns with theoretical predictions and simulation-based projections from the World Bank (2020) and Echandi et al. (2022), providing initial empirical validation of the investment channel through which regional trade agreements are expected to benefit African economies.

Our findings contribute to the emerging literature on AfCFTA's economic effects and provide a baseline for continued monitoring as implementation deepens over the coming years. The significant negative effect of inflation on FDI reinforces the importance of macroeconomic stability alongside trade policy reforms, suggesting that countries experiencing monetary instability may find the investment benefits of regional integration substantially attenuated. For West African policymakers, these results suggest that continued AfCFTA implementation, combined with domestic stabilization policies and infrastructure investment, may help attract the foreign investment needed for economic diversification and sustainable growth. The ECOWAS region's projected growth rate of 4.3% in 2025, combined with its youthful and expanding population, positions it as an increasingly attractive investment destination, provided that governance challenges and regional fragmentation concerns are addressed effectively. As Fofack (2024) emphasizes, the future of African trade in the AfCFTA era depends on translating formal integration commitments into practical reductions in trade costs and investment barriers. Our findings provide cautious optimism that this translation is beginning to occur, while underscoring the need for sustained policy attention to realize the agreement's full potential. Future research should continue tracking these dynamics as the AfCFTA Investment Protocol enters implementation and as the region navigates the geopolitical challenges posed by member state withdrawals and security concerns in the Sahel.

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