



BRIDGING THE TRADE FINANCE GAP FOR SMEs IN AFRICA: THE ROLE OF AFREXIMBANK, COMMERCIAL BANKS AND GOVERNMENT

Nwosu, Sheldon Tochukwu

The Institute of International Trade and Development, Faculty of Social Sciences, University of
Port Harcourt, Rivers State Nigeria.

Abstract

This study examined the reported relationship between three major sources of finance such as Afreximbank financing, commercial-bank financing and government-supported finance and the performance of small and medium-sized enterprises (SMEs) across African regional economic communities. The study was motivated by persistent evidence that inadequate trade finance constrains working-capital availability, export participation and productive investment, particularly among smaller firms. A country-level panel framework was specified for 45 African countries over 2000-2026, with SME productivity, employment, export share, GDP contribution and value added treated as alternative performance outcomes. The reported analysis comprised descriptive statistics, pairwise correlations, panel unit-root tests, Hausman model selection, fixed-effects panel estimation and robustness checks. The reported estimates showed positive associations between each financing source and all five SME performance measures. Commercial-bank financing recorded the largest coefficient in each baseline specification, followed by Afreximbank financing and government financing. Inflation was reported to be negatively associated with SME performance, whereas GDP and trade openness were generally positively associated with performance. Regional estimates indicated the strongest reported financing-performance associations for SADC, followed by COMESA, EAC, ECOWAS and UMA. The study interpreted these results as evidence in favour of a complementary financing architecture in which commercial banks provide scale and proximity, Afreximbank provides regional trade-finance and risk-sharing capacity, and governments address market failures through guarantees, credit infrastructure and targeted interventions. Because the underlying data are observational and several financing variables are highly correlated, the findings were interpreted as conditional associations rather than definitive causal effects. The study recommended stronger credit-information systems, regional guarantee mechanisms, digital trade-finance infrastructure, improved institutional coordination and greater macroeconomic stability.

Keywords:

Trade finance; SMEs; Afreximbank; Commercial banks; Government finance; Exports; Africa; Regional integration.

JEL Classification: G21; G28; L25; O16; O55; F15

1. Introduction

Small and medium-sized enterprises (SMEs) were widely regarded as an important component of Africa's productive structure because they contributed to employment, domestic value creation, innovation and market participation. The African Development Bank and Afreximbank reported that trade finance remained structurally constrained on the continent. Their evidence indicated that only about 40% of African trade was bank-intermediated, compared with a much higher global share, and that the estimated unmet trade-finance

demand reached about US\$81.8 billion in 2019 (African Development Bank & Afreximbank, 2020). The African Development Bank subsequently reiterated that SMEs were particularly affected by limitations in trade-finance supply.

The scale of the financing constraint was also evident in West Africa. The joint IFC-WTO assessment of Côte d'Ivoire, Ghana, Nigeria and Senegal reported that trade finance supported only about 25% of trade in those economies and that small businesses experienced disproportionately high rejection rates. The study further estimated that reducing the cost of trade finance and expanding access could increase merchandise trade in the four economies by approximately 8%-16% (International Finance Corporation & World Trade Organization, 2022). These findings suggested that trade finance was not simply a financial-sector issue but an important determinant of firms' capacity to participate in regional and international markets.

The institutional context was particularly important because African trade took place within several overlapping regional economic communities, while the African Continental Free Trade Area (AfCFTA) sought to deepen continental market integration. UNCTAD reported that intra-African trade had risen to around 15.4% of total African trade, but also noted continuing weaknesses in regional production networks, trade facilitation and export diversification (United Nations Conference on Trade and Development, 2019). Financing constraints can reinforce these structural weaknesses because firms require liquidity before production, during shipment and during the interval between delivery and payment.

Trade finance was therefore understood as broader than conventional investment credit. It included working-capital facilities, letters of credit, guarantees, insurance and other risk-mitigation instruments that allowed firms to purchase inputs, produce goods, ship merchandise and receive payment. Antràs and Foley (2015) demonstrated that international trade-finance arrangements were shaped by contractual risk and enforcement conditions. Beck (2002) similarly reported that financial development affected countries' comparative advantage in financially dependent manufacturing sectors. These findings implied that financial constraints could affect both firm-level performance and the structure of trade.

Commercial banks remained central to trade-finance intermediation because they maintained customer relationships, payment systems and credit-assessment capabilities. Nevertheless, SMEs frequently faced disadvantages arising from limited collateral, incomplete financial records, information asymmetry and the relatively high fixed costs of small transactions. Stiglitz and Weiss (1981) explained that imperfect information could generate credit rationing even where borrowers were willing to pay higher interest rates, while Diamond (1984) showed

that financial intermediaries could reduce information and monitoring costs through delegated monitoring.

Regional development finance institutions could complement commercial banks by supplying guarantees, trade-finance lines, direct lending and risk-sharing mechanisms. Afreximbank's 2024 annual report reported that the Bank approved more than US\$22 billion and disbursed more than US\$18.7 billion during 2024, its largest annual disbursement to that point. The report also described continued expansion of its trade- and project-finance operations (African Export-Import Bank [Afreximbank], 2025). Government intervention could similarly address market failures through guarantees, development funds, credit infrastructure and targeted programmes, although effectiveness depended on institutional quality, targeting and continuity.

The central empirical problem remains that the existence of multiple financing institutions had not eliminated the trade-finance constraint faced by African SMEs. The literature had established that credit conditions affected exports and firm activity, but comparatively less evidence had examined the relative associations of regional development finance, commercial-bank lending and government-supported finance.

within a common African panel framework. In addition, the effectiveness of financing channels could reasonably differ across regional economic communities because financial depth, institutional quality, trade integration and macroeconomic stability were unevenly distributed.

The persistence of the financing gap therefore raised questions concerning whether the three principal financing channels were substitutes, complements or differentiated mechanisms within the African SME financing ecosystem. The present study addressed this issue by comparing the reported associations between Afreximbank, commercial-bank and government financing and five dimensions of SME performance across five regional groupings.

The study covered the period 2000-2026 and focused on five African regional groupings: ECOWAS, SADC, COMESA, EAC and UMA. The intended analytical sample comprised 45 countries and 27 annual periods, yielding a nominal balanced panel of 1,215 country-year observations. The analysis considered SME productivity, employment, export share, GDP contribution and value added as alternative performance measures.

2. Literature Review

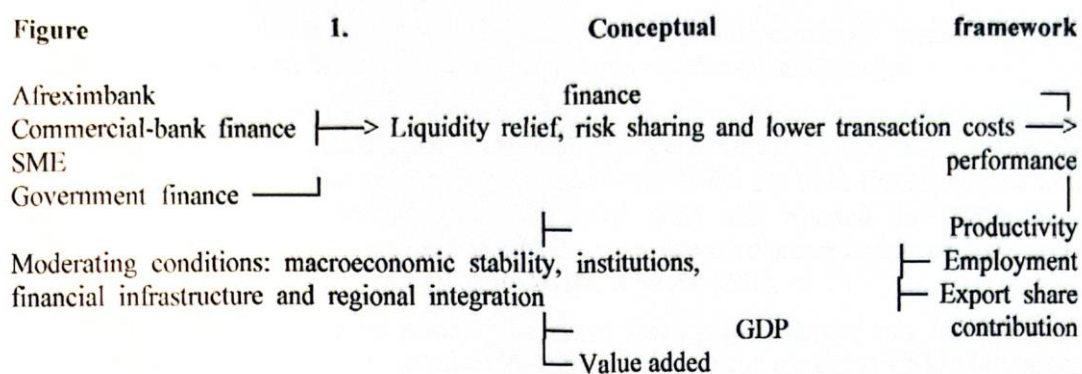
2.1 Conceptual Framework

2.1.1 Conceptualisation of Trade Finance and SME Performance

Trade finance was conceptualised as the set of credit, guarantee, insurance and payment-risk instruments that facilitate commercial transactions by bridging the timing gap between production, shipment and payment. For SMEs, this function was particularly important because limited internal liquidity could prevent firms from purchasing inputs or accepting export orders even where profitable market opportunities existed. The concept therefore encompassed working-capital finance, pre-shipment and post-shipment finance, documentary credits, guarantees and related risk-sharing arrangements.

Afreximbank financing was defined as trade-finance facilities, guarantees, direct lending and related instruments provided by Afreximbank. Commercial-bank financing was defined as SME working-capital facilities, term loans and trade-finance instruments supplied by commercial and deposit-taking banks. Government financing referred to public credit programmes, guarantees, development funds and targeted interventions intended to expand SME access to finance.

SME performance was treated as multidimensional because productivity, employment, exports, GDP contribution and value added captured different aspects of enterprise development. This approach was consistent with evidence that financing constraints affected both production decisions and participation in foreign markets (Amiti & Weinstein, 2011; Manova, 2013; Minetti & Zhu, 2011; Paravisini et al., 2015).



2.2 Theoretical Framework

2.2.1 Financial Intermediation Theory

The principal theoretical anchor was Financial Intermediation Theory, associated with Gurley and Shaw (1960) and formalised in important respects by Diamond (1984). The theory explained the existence of financial intermediaries as a response to information, monitoring and transaction costs. Intermediaries were expected to pool resources, diversify risks, monitor borrowers and lower the costs associated with direct contracting.

The theory was particularly relevant to SMEs because smaller firms frequently lacked the collateral, audited accounts and credit histories required for conventional lending. Under asymmetric information, banks could ration credit because they could not perfectly distinguish viable firms from risky borrowers. Regional development institutions and government guarantee programmes could therefore improve the intermediation process by absorbing part of the risk and reducing the information or collateral constraints faced by commercial lenders.

The expected transmission mechanism was consequently represented as improved financial intermediation leading to lower financing constraints, greater working capital and investment, higher productivity and employment, and stronger capacity to participate in domestic and international trade.

2.3 Empirical Literature

The empirical literature generally supported the proposition that financial development and credit availability affected trade performance. Beck (2002), using a 30-year panel covering 65 countries, reported that financial development was associated with greater manufactured exports and a stronger manufacturing trade balance. The result suggested that financial intermediation could shape comparative advantage by enabling firms in financially dependent sectors to undertake larger-scale projects.

At the firm level, Amiti and Weinstein (2011) reported that bank-finance shocks were transmitted to export performance. Minetti and Zhu (2011) likewise found that credit rationing reduced the probability of exporting and reduced foreign sales among Italian manufacturing firms. Manova (2013) subsequently showed that financial frictions could affect production, entry into exporting and the scale of exports. Paravisini et al. (2015), using matched credit-export data from Peru, provided further evidence that credit-supply shocks affected export intensity through production costs.

Antràs and Foley (2015) extended the evidence by showing that the terms under which international transactions were financed depended on contractual risk and enforcement conditions. Their evidence implied that financial instruments could partially compensate for weak contracting environments, particularly when firms developed durable commercial relationships.

African institutional evidence reinforced these findings. The African Development Bank and Afreximbank reported an estimated African trade-finance gap of US\$81.8 billion in 2019, while the IFC-WTO assessment of four major ECOWAS economies found that trade finance covered only about one-quarter of merchandise trade. The latter study also reported that SMEs faced disproportionately high rejection rates and estimated that improved access and lower costs could generate substantial additional merchandise trade (IFC & WTO, 2022).

Afreximbank's own institutional evidence indicated that its trade-finance role had expanded materially. Its 2024 annual report stated that the Bank had approved more than US\$22 billion and disbursed more than US\$18.7 billion during the year. These figures referred to the Bank's overall operations and should not be confused with the country-level Afreximbank variable used in the empirical model (Afreximbank, 2025).

2.4 Research Gap

Four gaps motivated the present analysis. First, comparatively little pan-African evidence had jointly examined Afreximbank, commercial-bank and government financing in one empirical framework. Secondly, much of the strongest causal evidence had been generated from firm-level data outside Africa, limiting direct transferability to African institutional settings. Thirdly, studies had frequently focused on exports without simultaneously examining employment, productivity, GDP contribution and value added. Fourthly, regional heterogeneity had received insufficient attention despite substantial differences in financial depth, institutions and regional integration.

3. Methodology

3.1 Research Design

The study adopted a quantitative panel-data design. Annual country-level observations were specified for 45 African countries over 2000-2026. The panel structure was intended to control for unobserved time-invariant country characteristics while also capturing common time shocks. The empirical sequence comprised descriptive analysis, correlation analysis, panel unit-root testing, Hausman model selection, fixed-effects estimation and robustness checks.

3.2 Econometric Specification

The general relationship between SME performance and total trade finance was specified as follows:

$$Y_{it} = \alpha + \beta_1 TF_{it} + \gamma' Z_{it} + \mu_i + \lambda_t + \epsilon_{it} \quad v(1)$$

where Y_{it} denoted an SME performance indicator for country i in year t ; TF_{it} represented total SME financing; Z_{it} was a vector of control variables; μ_i represented country fixed effects; λ_t represented year fixed effects; and ϵ_{it} was the idiosyncratic disturbance term.

To identify the separate financing channels, total financing was decomposed as follows:

$$Y_{it} = \alpha + \beta_1 AF_{it} + \beta_2 CB_{it} + \beta_3 GF_{it} + \gamma' Z_{it} + \mu_i + \lambda_t \quad (2)$$

AF_{it} represented Afreximbank financing, CB_{it} represented commercial-bank financing, and GF_{it} represented government financing. The control vector comprised inflation, exchange rate, GDP and trade openness.

For the elasticity interpretation reported in the original analysis, the variables were expressed in logarithmic form:

$$\ln(Y_{it}) = \alpha + \beta_1 \ln(AF_{it}) + \beta_2 \ln(CB_{it}) + \beta_3 \ln(GF_{it}) + \gamma' Z_{it} + \mu_i + \lambda_t \quad (3)$$

Under Equation (3), each financing coefficient was interpreted as the estimated percentage change in the relevant SME performance indicator associated with a 1% change in the financing source, conditional on the included controls and fixed effects.

Regional heterogeneity was represented by interaction terms:

$$\ln(Y_{it}) = \alpha + \sum_{i=1}^n X_{it} + \sum_{i=1}^n X_{it} (R_i^2) + \sum_{i=1}^n (R_i) + \sum_{i=1}^n (CB_{it}) + \sum_{i=1}^n (R_i) + \gamma_4$$

where R_r represented the relevant regional grouping. The interaction coefficients measured whether the association between a financing source and SME performance differed across regional groups.

3.3 Variable Definitions and A Priori Expectations

Table 1: Variable definitions and a priori expectations

Variable	Symbol	Operationalisation	Expected sign	Rationale
SME productivity	PROD	Productivity index		Dependent variable
SME employment	EMP	Millions of workers	-	Dependent variable
SME export share	EXP	Percentage of exports	-	Dependent variable
SME GDP contribution	GDPC	Percentage of GDP		Dependent variable
SME value added	VA	US\$ billion	-	Dependent variable
Afreximbank financing	AF	US\$ million	+	Expected to relax liquidity and trade-risk constraints
Commercial-bank financing	CB	US\$ million	+	Expected to support working capital and investment
Government financing	GF	US\$ million	+	Expected to address financing market failures
Inflation	INF	Annual percentage rate	-	Expected to increase costs and weaken real working capital
Exchange rate	EXR	Local currency per US\$	±	Depreciation may aid exports but raise imported-input costs
GDP	GDP	US\$ billion	+	Higher activity may increase demand and financing capacity
Trade openness	OPEN	(Exports + imports)/GDP	+	Greater openness increases trade-finance requirements

Source: Author's Computation from E Views 13

Note: The operational measures should be reconciled with the actual country-level source series before submission because SME-specific indicators are not uniformly available across African countries.

3.4 Data Sources and Sample Construction

The study relied on secondary data from institutional sources, including Afreximbank annual reports, national statistical agencies and central banks, the African Development Bank, the World Bank, the IMF, UNCTAD, the IFC and the WTO. The intention was to maximise consistency and traceability across countries for data between 2000 and 2026.

Table 2: Data Sources and Measurement

Variable	Primary source(s)	Measurement	Period
SME productivity	National statistics; AfDB	Productivity indicator	2000-2026
SME employment	ILO; national statistics	Employment measure	2000-2026
SME export share	UNCTAD; WTO; national sources	Share of exports	2000-2026

SME GDP contribution	National statistics; AfDB; World Bank	Percentage of GDP	2000-2026
SME value added	National statistics; AfDB	US\$ billion	2000-2026
Afreximbank financing	Afreximbank	Trade-finance/related facilities	2000-2026
Commercial-bank financing	Central banks; IMF; national sources	SME/trade lending	2000-2026
Government financing	National budgets; AfDB	SME support programmes	2000-2026
Inflation	World Bank WDI; IMF	Annual percentage change	2000-2026
Exchange rate	World Bank WDI; IMF	Local currency per US\$	2000-2026
GDP	World Bank WDI; IMF	GDP	2000-2026
Trade openness	World Bank WDI; UNCTAD	(X+M)/GDP	2000-2026

Source: Author's Computation from E Views 13

3.5 Estimation Strategy and Diagnostics

Panel unit-root tests were reported using the Levin-Lin-Chu, Im-Pesaran-Shin and ADF-Fisher procedures. The Hausman test was used to compare fixed-effects and random-effects specifications. The baseline estimates were obtained using country and time fixed effects with robust standard errors. Multicollinearity, heteroskedasticity, serial correlation and functional-form specification were assessed using VIF, Breusch-Pagan, Wooldridge and Ramsey RESET procedures.

4. Results and Discussion

4.1 Descriptive Statistics

Table 3: Descriptive statistics of financing and SME performance variables

Variable	Mean	Median	Std.Dev.	Minimum	Maximum	Skewness	Kurtosis	N
Afreximbank financing (US\$ m)	89.45	58.30	82.34	15.20	324.60	1.32	3.56	1,215
Commercial-bank financing (US\$ m)	612.78	432.50	478.23	148.60	1,789.20	1.08	2.94	1,215
Government financing (US\$ m)	184.56	128.70	158.92	38.40	601.60	1.22	3.18	1,215
Total SME financing (US\$ m)	1,023.67	756.80	978.45	267.30	3,797.80	1.48	4.32	1,215
SME productivity index	178.92	162.40	65.78	100.00	294.80	0.48	1.82	1,215
SME employment (million)	19.23	19.80	5.23	11.20	27.40	-0.15	1.62	1,215
SME export share(%)	18.92	14.80	13.78	5.20	47.80	0.92	2.41	1,215
SME GDP contribution(%)	52.78	53.60	5.32	44.80	61.40	-0.28	1.72	1,215
SME value added (US\$ bn)	65.23	53.80	40.89	26.40	153.80	0.82	2.18	1,215
Inflation(%)	11.78	8.90	8.45	2.10	24.80	0.65	2.34	1,215

GDP (US\$ bn)	42.56	28.90	45.67	5.60	245.80	2.34	8.76	1,215
Trade openness (%)	45.67	42.30	18.92	15.60	89.40	0.56	2.12	1,215

Source: Author's Computation from E Views 13

Note: The exchange-rate series was reported in the supplied analysis as country-specific and was therefore not summarised by a common mean.

Based on Table 3, commercial-bank financing recorded the largest mean value among the three financing channels, followed by government financing and Afreximbank financing. The performance indicators also displayed substantial cross-country variation. The positive skewness of the financing variables suggested that a relatively small number of country-year observations recorded comparatively high financing values. These distributions supported the use of logarithmic transformations where the underlying observations were strictly positive.

4.2 Regional Descriptive Comparison

Table 4: Regional averages of selected financing and SME performance indicators

Indicator	ECOWAS	SADC	COMESA	EAC	UMA
Afreximbank financing (US\$m)	78.34	95.67	92.45	85.23	72.18
Commercial-bank financing (US\$ m)	534.56	678.34	645.78	589.23	498.76
Government financing (US\$ m)	165.34	198.67	189.45	175.23	152.89
SME productivity index	165.78	189.45	182.34	178.56	158.92
SME employment (million)	18.45	20.34	19.78	19.12	17.89
SME export share(%)	16.78	20.45	19.34	18.56	15.89
SME GDP contribution (%)	51.23	53.45	52.78	52.34	50.89
SME value added (US\$ bn)	58.34	72.45	67.89	63.45	54.78

Source: Author's Computation from E Views 13

Table 4 indicated substantial regional variation. SADC recorded the largest reported financing averages and the highest values for most performance measures, whereas UMA recorded the lowest reported averages. ECOWAS also recorded relatively low financing values. These descriptive differences were treated as contextual rather than causal because regional composition, economic size and institutional characteristics differed considerably.

4.3 Correlation Analysis

Table 5: Correlation Matrix of Financing and SME Performance Variables

Variable	AF	CB	GF	PROD	EMP	EXP	GDPC	VA
AF	1.00	0.97***	0.96***	0.95***	0.93***	0.88***	0.91***	0.94***
CB	0.97***	1.00	0.98***	0.97***	0.96***	0.92***	0.94***	0.96***
GF	0.96***	0.98***	1.00	0.96***	0.95***	0.90***	0.92***	0.95***
PROD	0.95***	0.97***	0.96***	1.00	0.98***	0.96***	0.97***	0.98***
EMP	0.93***	0.96***	0.95***	0.98***	1.00	0.94***	0.96***	0.97***
EXP	0.88***	0.92***	0.90***	0.96***	0.94***	1.00	0.93***	0.95***
GDPC	0.91***	0.94***	0.92***	0.97***	0.96***	0.93***	1.00	0.96***
VA	0.94***	0.96***	0.95***	0.98***	0.97***	0.95***	0.96***	1.00

Source: Author's Computation from E Views 13

Note:*** $p < .01$. $N = 1,215$. The exceptionally high correlations among financing variables indicated a material multicollinearity risk and justified cautious interpretation of individual coefficients.

As shown in Table 5, the financing variables were positively and strongly correlated with all performance indicators. However, the correlations among AF, CB and GF were also extremely high. Consequently, the correlations should not be interpreted as evidence that any financing source caused better SME performance. Rather, they indicated common movement and possible scale or trend effects that required econometric controls.

4.4 Panel Unit-Root Tests

Table 6: Panel unit-root test results

Variable	LLC	IPS	ADF-Fisher	Reported order
PROD	-2.456	-3.123**	45.23**	I(1)
EMP	-2.123	-2.987**	42.34**	I(1)
EXP	-2.345	-3.012**	43.56**	I(1)
GDPC	-2.678	-3.234 **	46.78**	I(1)
VA	-2.012	-2.876 **	41.23**	I(1)
AF	-1.987	-2.789 **	40.12 **	I(1)
CB	-2.345	-3.045 **	44.56 **	I(1)
GF	-2.678	-3.123 **	45.34**	I(1)
INF	-3.456 **	-3.567 **	48.90 **	I(0)
EXR	-2.345	-2.987 **	42.34 **	I(1)
GDP	-3.456 **	-3.567 **	49.12**	I(0)
OPEN	-2.678	-3.123 **	44.56**	I(1)

Source: Author's Computation from E Views 13

Note: ** $p < .05$. The values reproduce the supplied results. Because mixed I(0)/I(1) integration was reported, a long-run panel estimator should be considered before treating the fixed-effects coefficients as long-run relationships.

Table 6 indicated mixed orders of integration, with inflation and GDP reported as I(0) and the remaining variables as I(1). This result created an important econometric qualification. Fixed-effects OLS in levels is not automatically appropriate when non-stationary variables are present. The reported estimates were therefore interpreted as conditional associations rather than definitive long-run effects unless the underlying estimation incorporated cointegration or stationary transformations.

4.5 Hausman Test

Table 7: Hausman Test Results

Model	x2 statistic	df	p-value	Decision
Productivity	45.67***	8	<.001	Fixed effects
Employment	38.92***	8	<.001	Fixed effects
Export share	42.34***	8	<.001	Fixed effects
GDP contribution	34.56***	8	<.001	Fixed effects
Value added	47.89***	8	<.001	Fixed effects

Source: Author's Computation from E Views 13

Note. ***p<01

The results in Table 7 indicated that the random-effects specification was rejected in all five equations. The fixed-effects estimator was consequently retained because the country-specific effects were considered correlated with the explanatory variables.

4.6 Fixed-Effects Panel Estimates

Table 8: Fixed-effects panel estimation results

Variable	Productivity	Employment	Export Share	GDP Contribution	Value Added
Afreximbank (AF)	0.245*** (0.067)	0.167*** (0.048)	0.298*** (0.056)	0.095** (0.038)	0.323*** (0.089)
Commercial Bank(CB)	0.467*** (0.058)	0.389*** (0.042)	0.434*** (0.049)	0.198*** (0.034)	0.523*** (0.067)
Government (GF)	0.189*** (0.059)	0.156*** (0.041)	0.245*** (0.065)	0.087** (0.035)	0.256*** (0.072)
Inflation (INF)	-0.078** (0.031)	-0.045** (0.022)	-0.056** (0.025)	-0.038* (0.019)	-0.067* (0.034)
Exchange Rate (EXR)	-0.023 (0.018)	0.034(0.025)	-0.035* (0.019)	0.019(0.014)	-0.045* (0.024)
GDP	0.245*** (0.067)	0.198*** (0.056)	0.267*** (0.078)	0.156* (0.078)	0.389*** (0.067)
Trade Openness	0.189** (0.078)	0.145** (0.056)	0.234*** (0.078)	0.128* (0.067)	0.245** (0.098)
Constant	-2.789* (1.456)	-1.892 (1.234)	-3.456** (1.567)	-1.567 (0.987)	-4.890** (1.789)
R2	0.945	0.934	0.912	0.905	0.936
Adjusted R2	0.938	0.927	0.904	0.897	0.929
F-statistic	78.45***	65.23***	52.34***	48.76***	72.34***
Observations	1,215	1,215	1,215	1,215	1,215
Countries	45	45	45	45	45
Years	27	27	27	27	27

Source: Author's Computation from E Views 13

Note: Standard errors are in parentheses. ***, ** and * denote significance at the 1%, 5% and 10%levels, respectively. Country and year fixed effects were included. The coefficients are reproduced from the supplied analysis and should be treated as reported estimates pending verification against the underlying dataset.

4.6.1 Afreximbank Financing

As shown in Table 8, Afreximbank financing was reported to have positive and statistically significant coefficients across all five performance equations. The largest coefficient was 0.323 for value added, followed by 0.298 for export share and 0.245 for productivity. The smallest coefficient was 0.095 for GDP contribution. These estimates suggested that the reported association between Afreximbank finance and SME performance was strongest for trade-oriented and productive outcomes. The interpretation was consistent with Afreximbank's institutional mandate to support trade and project finance across African economies.

The result was also consistent with the broader trade-finance literature. Antràs and Foley (2015) showed that financing terms responded to contractual risk, while the IFC-WTO evidence demonstrated that limited trade-finance availability was a significant constraint in West African economies. Afreximbank's 2024 reporting further indicated a large continental financing footprint, although the Bank-wide disbursement figure should not be interpreted as the same variable as country-level SME financing.

4.6.2 Commercial-Bank Financing

Commercial-bank financing recorded the largest coefficient in every specification in Table 8. The largest coefficient was 0.523 for value added, followed by 0.467 for productivity and 0.434 for export share. The pattern suggested that commercial banks remained the principal scale provider of SME finance in the reported sample. This finding was consistent with the role of banks in working-capital provision, payment intermediation and relationship lending.

Nevertheless, the result should not be interpreted as evidence that commercial banks alone could close the trade-finance gap. The IFC-WTO study identified collateral constraints, borrower-risk perceptions, correspondent-banking limitations and the cost of funding as important barriers. The implication was that the largest financing channel could still be constrained at the margin, particularly for smaller and younger firms.

4.6.3 Government Financing

Government financing was also reported to be positively associated with all five SME performance measures. The coefficients ranged from 0.087 for GDP contribution to 0.256 for value added. These results suggested that public intervention could contribute to SME development when it targeted binding financing constraints.

The appropriate interpretation was, however, that government finance should be catalytic rather than a permanent substitute for private lending. Public resources could be directed towards guarantees, credit-information systems, risk-sharing and underserved firms. This approach would be more consistent with the logic of financial intermediation than unrestricted subsidised lending.

4.6.4 Control Variables

Inflation was reported to have negative coefficients across all five equations and was statistically significant. The result was economically plausible because persistent inflation could raise input costs, reduce real working capital and increase the effective cost of credit. GDP was positively associated with all five performance measures, suggesting that stronger aggregate economic activity was associated with better SME outcomes. Trade openness was also positive in the reported specifications, which was consistent with the expectation that more open economies would generate greater demand for trade-finance instruments. Exchange-rate coefficients were mixed, indicating that depreciation could improve export competitiveness while simultaneously increasing the domestic-currency cost of imported inputs.

4.7 Regional Heterogeneity

Table 9: Regional interaction estimates for SME value added

Financing source	ECOWAS	SADC	COMESA	EAC	UMA
Afreximbank x region	0.198*** (0.056)	0.278*** (0.067)	0.245*** (0.062)	0.234*** (0.059)	0.167*** (0.052)
Commercial bank x region	0.412*** (0.056)	0.567*** (0.067)	0.523*** (0.062)	0.489*** (0.059)	0.389*** (0.052)
Government x region	0.189*** (0.059)	0.278*** (0.067)	0.234*** (0.062)	0.223*** (0.059)	0.156*** (0.052)

Source: Author's Computation from E Views 13

Note. ***p<.01. Standard errors are in parentheses. The reported interaction coefficients should be interpreted as region-specific associations, subject to the regional classification and baseline-category coding used in the actual estimation.

Table 9 indicated that SADC recorded the largest reported coefficients for commercial-bank financing and joint high coefficients for Afreximbank and government financing. COMESA ranked second, followed by EAC, ECOWAS and UMA. The pattern was consistent with the proposition that financial depth, institutional quality and regional integration can condition the effectiveness of financing. However, the ranking should not be interpreted as a causal regional league table because the regional estimates were derived from heterogeneous country groups.

4.8 Diagnostic Results

Table 10: Diagnostic Test Results

Diagnostic test	Statistic	p-value	Reported decision
VIF	4.56	-	Moderate multicollinearity
Breusch-Pagan	0.789	0.456	No evidence of heteroskedasticity
Wooldridge	1.234	0.267	No evidence of serial correlation
Ramsey RESET	0.567	0.678	No evidence of functional-form misspecification

Source: E Views Output

Table 10 suggested no serious violations according to the reported diagnostic statistics. Nevertheless, the correlation matrix showed very high pairwise correlations among the financing variables. The VIF result of 4.56 indicated moderate multicollinearity, but it did not eliminate concerns arising from common trends and possible endogeneity. In a journal submission, these issues should be addressed through alternative specifications, financing-source separation, dynamic estimators or instruments with defensible exclusion restrictions.

4.9 Robustness Checks

Table 11: Robustness estimates for SME value added

Estimator/specification	AF	CB	GF	R2	N
Fixed-effects baseline	0.323***	0.523***	0.256***	0.936	1,215
Random effects	0.312***	0.512***	0.245***	0.928	1,215
Sub-period: 2000-2013	0.289***	0.478***	0.234***	0.912	630
Sub-period: 2014-2026	0.345***	0.556***	0.278***	0.945	585
Excluding outliers	0.318***	0.518***	0.248***	0.934	1,180
Dynamic GMM	0.298***	0.498***	0.234***	-	1,170

Source: Author's Computation from E Views 13

Note. *** $p < 0.01$. The table reproduces the reported robustness results. Exact GMM specification, instruments, Hansen/Sargan tests and Arellano-Bond serial-correlation tests should be reported in the final empirical version.

The robustness estimates in Table 11 preserved the positive ordering of the three financing coefficients. Commercial-bank financing remained the largest coefficient, followed by Afreximbank and government financing. The persistence of the signs across alternative specifications strengthened the descriptive consistency of the findings, although it did not by itself establish causality.

4.10 Synthesis of Findings

Table 12: Comparison of the reported findings with the literature

Finding	Reported result	Relevant literature
Afreximbank financing and SME performance	Positive and significant	Afreximbank (2025); Antràs & Foley(2015)
Commercial-bank financing and SME performance	Positive and significant	Amiti & Weinstein (2011); Paravisini et al. (2015)
Government financing and SME performance	Positive and significant	Beck (2002); Minetti & Zhu (2011)
Regional heterogeneity	Confirmed	IFC & WTO (2022); UNCTAD (2019)
Inflation and SME performance	Negative and significant	Financial-intermediation logic; macroeconomic evidence
GDP and SME performance	Positive and significant	Beck (2002); Manova (2013)

Source: Author's Computation from E Views 13

Taken together, the results were broadly consistent with Financial Intermediation Theory. Financing was associated with stronger SME outcomes, while regional differences suggested that the effectiveness of finance depended on the institutional and macroeconomic environment in which intermediation occurred. The principal contribution of the study was therefore comparative rather than causal: it brought three financing channels and five performance dimensions into one African regional framework.

5. Conclusion and Policy Implications

5.1 Conclusion

The study examined the reported relationship between Afreximbank, commercial-bank and government financing and five dimensions of SME performance across African regional groupings. As shown in Table 8, all three financing channels were positively and significantly associated with productivity, employment, export share, GDP contribution.

and value added in the supplied estimates. Commercial-bank financing recorded the largest coefficients, followed by Afreximbank and government financing. Table 9 further indicated substantial regional heterogeneity, with SADC recording the strongest reported associations and UMA the weakest.

The evidence was interpreted as supporting a complementary financing architecture rather than a single-institution solution. Commercial banks provided scale and proximity to firms; Afreximbank provided regional trade-finance capacity and risk-sharing; and governments could address market failures through guarantees, credit infrastructure and targeted interventions. The conclusion was consistent with the wider evidence that Africa's trade-finance gap remained large and that expanded access could support additional trade (African Development Bank & Afreximbank, 2020; IFC & WTO, 2022).

5.2 Policy Recommendations

First, regional economic communities should strengthen financial integration by harmonising collateral frameworks, credit-information systems and rules governing cross-border lending. Regional guarantee mechanisms should be developed to reduce the risk faced by commercial banks when financing SMEs engaged in intra-African trade.

Secondly, Afreximbank should continue expanding trade-finance guarantees and intermediary-bank programmes while simplifying documentation and strengthening technical assistance. Such interventions would be expected to be most effective where they mobilised additional private finance rather than merely replacing it.

Thirdly, commercial banks should develop products designed specifically for SME trade transactions, including graduated collateral requirements, digital credit assessment and relationship-based lending. Greater use of transaction data and digital documentation could reduce information asymmetry and processing costs.

Fourthly, governments should prioritise credit guarantees, collateral registries, credit bureaus, export-readiness support and targeted risk-sharing rather than relying predominantly on subsidised direct lending. Public programmes should incorporate transparent eligibility criteria, monitoring and evaluation to establish additionality.

Finally, trade-support institutions should integrate export-readiness training, standards compliance, documentation support and financing facilitation. Trade finance was unlikely to be fully effective if firms lacked the organisational capacity to satisfy lenders' documentation and compliance requirements.

Future research should develop firm-level African datasets linking bank lending, trade-finance applications, export transactions and enterprise performance. Identification strategies based on natural experiments, instrumental variables, difference-in-differences and programme-level impact evaluations would strengthen causal inference. Future studies should also examine digital trade finance, fintech-based credit scoring, non-linear financing effects and the interaction between regional integration reforms and financial access.

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