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Dynamic Interactions Between Financial Development and Current Account Sustainability in African Economies

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ABSTRACT

The research examined financial development and current account sustainability in African economies using panel data from 2010 to 2023 from the World Development Indicators (WDI). Unlike previous studies that focused narrowly on single indicators or on other regions, this research adopted a multidimensional approach by analyzing credit to the private sector, broad money supply, stock market capitalization, Foreign Direct Investment (FDI), and terms of trade and exchange rate dynamics. To address endogeneity and capture the persistence of current account positions, the researchers employed a dynamic panel Generalized Method of Moments (GMM) framework, ensuring robust and reliable results. The findings reveal strong persistence in current account balances, suggesting structural factors that maintain external positions over time. Among financial development variables, money supply has a statistically significant and positive effect, indicating that monetary deepening supports external sustainability. In contrast, credit to the private sector and stock market capitalization are statistically insignificant, reflecting shallow and inefficient financial systems across much of Africa. FDI exerts a positive influence, but its effectiveness depends on alignment with national development priorities. Terms of trade and exchange rate changes show weak and inconsistent impacts, underlining the region's vulnerability to commodity dependence and external shocks. The research contributes novelty in three respects: incorporating multiple dimensions of financial development, providing region-specific evidence for African economies, and applying a dynamic panel GMM framework to strengthen methodological rigor. The results highlight the need to deepen financial institutions, promote export diversification, and enhance regional integration to improve external resilience and long-term macroeconomic stability.

Keywords: financial development, current account sustainability, money supply, stock market development, banking sector development, Generalized Method of Moments (GMM)

INTRODUCTION

Although rising global imbalances in the 2000s have spurred growing interest in the literature on current account sustainability, the relationship between financial development and current account sustainability has remained relatively underexplored. The pattern of current account balances across emerging and developing economies has become much more diverse in recent years than during the early 1990s, particularly between emerging and developing countries in Africa and Europe. Many African countries have experienced large current account deficits in recent years. These deficits have been financed by foreign capital inflows, such as Foreign Direct Investment (FDI) and portfolio investment. However, there is a growing concern that these deficits are not sustainable (Akonnor, 2024). If the inflows of foreign capital were to stop or if the cost of foreign capital were to increase, these countries would face a balance of payments crisis (International Monetary Fund. African Dept., 2024a).

The current account is one of the most widely studied areas in international macroeconomics, alongside the concept of Purchasing Power Parity (PPP). While the current account is not a policy tool

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like interest rates or the money supply, nor a direct target like inflation or unemployment, it still offers valuable insights into how macroeconomic policies are working and how economic agents are behaving. It also reflects the forward-looking decisions of rational borrowers and lenders in an interconnected global economy (Borio & Disyatat, 2015).

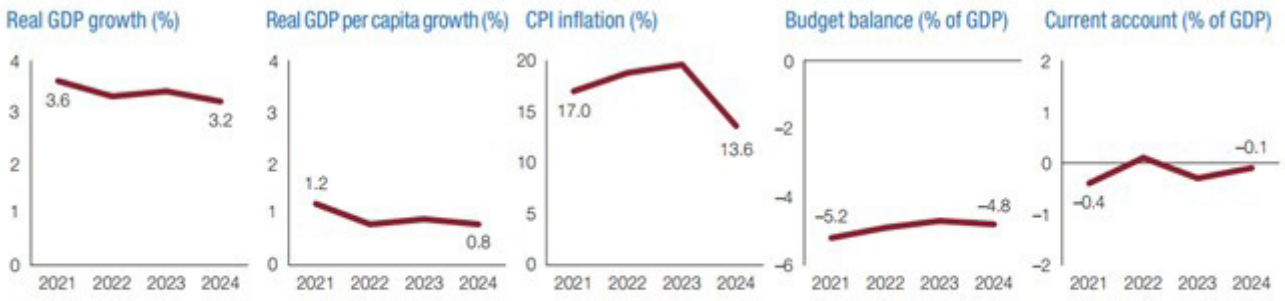
No country can maintain a current account deficit indefinitely, as borrowed funds must eventually be repaid. A nation's credibility in global markets hinges on its ability to honour these obligations, and sustained deficits can raise concerns about its financial stability. The longer a country can maintain current account deficits without triggering market distress, the more creditworthy it is perceived to be. Conversely, persistent and unsustainable deficits may signal trouble, increasing the risk of financial crises or even default (Yessymkhanova et al., 2025).

A sustainable current account often indicates that a country's external debt is also sustainable, thereby reducing the risk of default (Yessymkhanova et al., 2025). While short-term deficits may not be inherently problematic, especially when they result from productive capital inflows, persistent deficits raise significant concerns. Such imbalances can lead to higher domestic interest rates as countries seek to attract foreign capital. Moreover, the continued accumulation of external debt increases future interest obligations, thereby placing a growing financial burden on subsequent generations (Altayligil & Çetrez, 2020).

In addition, current account sustainability supports the theoretical expectations of the intertemporal model, further validating its applicability (Husted, 1992). Higher financial development and fiscal stability help economies manage volatility from climate shocks, thereby improving external resilience in disaster-prone developing countries (Terrones & Tol, 2022). For instance, in Nigeria, the 2013 Annual Report of the Central Bank of Nigeria (CBN) reported that the current account surplus increased by 6.3% between 2012 and 2013. This positive development could be explained by the 6.8% trade surplus and the 0.9% increase in the current transfers account, driven by remittance inflows. As shown in Figure 1, in 2022 the current account recorded a small surplus of 0.1% of GDP, reversing three years of deficits, driven by improved oil exports. However, gross international reserves decreased by 7.5% to $37.1 billion, covering 5.7 months of imports. The fiscal deficit narrowed to 4.9% of GDP from 5.2% in 2021, but was financed through borrowing, raising public debt to $103.1 billion (about 22% of GDP) from $92.6 billion. GDP growth slowed due to a contraction in public consumption (2.5%) and net exports (80%), with real GDP growth falling to 3.3% in 2022 from 3.6% in 2021, primarily due to a decline in oil production (African Development Bank Group, n.d.; International Monetary Fund. African Dept., 2024b).

As of 2015, Nigeria produced approximately 1.8 million barrels of crude oil per day, with oil exports accounting for over 70% of its income. However, when global oil prices fell below US$50 per barrel, the economy faced significant challenges. Reports suggested that Nigeria needed oil prices close to US$120 per barrel to balance its budget. By November 2023, oil production had decreased to 1.4 million barrels per day, yet oil exports still made up over 70% of the nation's income (Nigerian Upstream Petroleum Regulatory Commission (NUPRC), 2023). Despite oil prices hovering above US$70 per barrel, oil only contributed about 5.4% to GDP by the third quarter of 2023 (National Bureau of Statistics, 2023). This report underscores the need for the financial system to play a crucial role in channelling resources into key sectors that can help to boost exports and maintain a sustainable current account balance.

Short-run current account imbalances may simply reflect capital reallocation to countries with higher returns on investment. It particularly happens in developing regions (Pagliari & Hannan, 2024). However, persistent long-term deficits can increase exposure to unsustainable external debt, the risk of sovereign default, and macroeconomic instability, often manifesting as contractionary adjustments and



Source: Data are as of April 2023 and are from domestic authorities; figures for 2022 are estimates and figures for 2023 and 2024 are projections by the African Economic Outlook team.

COUNTRY NOTES

Figure 1 Nigeria's Economic Outlook
Source: African Development Bank Group (2023)

growth slowdowns (Moreno et al., 2020).

Further, the rapid expansion of mobile banking and fintech platforms across Sub-Saharan Africa (SSA), spurred by COVID-19 and digital innovation, has doubled account ownership from 2011 to 2023. However, millions still rely on cash, indicating room for further institutional financial deepening to support external resilience (Demirguc-Kunt et al., 2022; Organisation for Economic Co-operation and Development (OECD), 2021). Initiatives, such as the African Continental Free Trade Area (AfCFTA) and enhanced intra-African payment systems (Pan-African Payment and Settlement System (PAPSS)), facilitate deeper regional integration, which offers potential synergies with financial development to stabilize current accounts

The sustainability of the current account remains a central concern for macroeconomic stability in developing regions, particularly in Africa. Many African economies are highly exposed to external shocks, volatile capital flows, and fluctuations in global commodity prices (Oyadeyi & Akinbobola, 2022; Ndzama, 2025). Persistent current account imbalances undermine external resilience, constrain growth, and increase vulnerability to crises (Bousnina et al., 2021; Zulfiqar et al., 2024). As African countries deepen their integration into global financial markets while simultaneously grappling with structural weaknesses, understanding the drivers of current account sustainability becomes increasingly urgent.

Moreover, the literature on current account deficits in Africa is extensive and reveals a range of contributing factors. Recent research has suggested that financial development can play a mitigating role by boosting savings, moderating excessive investment, and easing access to external financing (Meniago et al., 2025). These findings underscore the potential of financial development as a tool for enhancing current account sustainability in the region. Another research by Bah et al. (2023) has underscored the institutional context by analyzing 46 Sub-Saharan African countries. It demonstrates that higher institutional quality enhances current account sustainability. It also employs the system- Generalized Method of Moments (GMM) to confirm that governance improvements amplify the positive impact of financial development on the current account. Previous research by Faruq and Chowdhury (2025) has found that while fintech-enabled financial markets and big data adoption can promote Environmental, Social and Governance (ESG) investment and efficient resource allocation, inflationary conditions can dampen these benefits, limiting the stabilizing impact on current accounts.

Discussions in the literature have long emphasized the importance of sustainable current account positions, with renewed attention in recent years in the context of developing economies. A recurring theme is that current account balances vary significantly across countries and are closely linked to economic fragility and vulnerability to external shocks. Empirical research has examined how current account dynamics interact with macroeconomic variables such as trade openness, fiscal policy, and exchange rate regimes, highlighting their broader implications for growth. However, despite this rich body of work, the role of financial development in shaping current account sustainability, particularly in Africa, remains underexplored.

Theoretically, the research draws on the intertemporal approach to the current account, which frames external balances as the outcome of forward-looking saving and investment decisions, and on financial development theories, which stress the role of financial systems in mobilizing resources, allocating credit, and supporting macroeconomic stability (Trehan & Walsh, 1991; Husted, 1992). By integrating these perspectives, the research hypothesizes that financial development, through channels such as the money supply, credit to the private sector, stock market development, and foreign direct investment, can significantly influence the persistence and sustainability of current account positions in African economies. Building on these insights, the researchers seek to examine how financial development can enhance current account sustainability across African economies. Recognizing that the relationship is neither linear nor straightforward, the analysis accounts for the structural and macroeconomic factors that mediate this linkage, including institutional quality, exchange rate regimes, and sources of foreign exchange earnings. The research contribution lies in offering new empirical evidence from Africa, thereby filling a gap in the literature that has largely focused on advanced and emerging Asian economies. By doing so, it provides policymakers with fresh insights as they design strategies to strengthen external balances, reduce vulnerability to shocks, and promote long-term economic growth in developing and emerging markets.

Many researchers have increasingly turned to advanced econometric methods to explore the determinants and sustainability of current account balances across developing regions. One strand of this rising literature highlights macroeconomic fundamentals. In South and Southeast Asia, for instance, stronger financial development, sound fiscal balances, and favorable terms of trade contribute significantly to current account sustainability. However, trade openness, particularly in less diversified economies, may intensify external imbalances (Zulfiqar et al., 2024).

Complementing this regional perspective, previous research by Ndzama (2025) has adopted a probabilistic modelling approach for selected African economies. The results suggest that countries burdened with persistent deficits and limited export diversification are particularly vulnerable. In contrast, those with broader economic structures and more stable foreign exchange inflows are better positioned to convert external balances into enduring growth. In North Africa and the Middle East, research by Bousnina et al. (2021) has utilized threshold

cointegration techniques to analyze current account trends across a 12-country sample from 1970 to 2018, concluding that persistent deficits necessitate robust policy interventions for broader stability. Alongside this, research by Altayligil and Çetrez (2020) has offered a globally broader analysis spanning 97 countries, finding that fiscal health, economic growth, and institutional strength robustly shape current account positions.

Turning to national case studies, many studies on Nigeria present varied insights. Domestic financial development appears to have little bearing on Nigeria's current account sustainability (Oyadeyi & Akinbobola, 2022). In contrast, in the broader Middle East and North Africa (MENA) region, it shows that financial development can enhance current account dynamics, although this positive effect may be moderated or even reversed by weak institutional environments. Financial inclusion emerges as a promising lever in the West African context (Bousnina & Gabsi, 2022). Another research also illustrates how broader access to financial services strengthens current account stability by boosting savings and curbing consumption volatility (Meniago et al., 2025).

Exploring growth linkages, the causal relations between financial sector development and inclusive growth in Sub-Saharan Africa have been investigated. It finds only limited unidirectional effects. These findings suggest that, in many SSA countries, deepening finance and inclusive growth remain disconnected phenomena (Olayiwola, 2022). Intersecting with environmental outcomes, previous research analyzes how specific components of financial development affect CO_2 emissions in 46 SSA countries. With dynamic GMM estimations, both financial markets and institutions raise emissions, although markets align better with renewable investments, offering a viable path toward sustainable growth (Habiba & Xinbang, 2022).

Expanding the focus on account sustainability, the efficient financial systems in African countries, marked by good access and institutional effectiveness, enhance current account resilience by facilitating better savings mobilization, investment allocation, and sound borrowing practices (Abille & Meçik, 2024). Similarly, another research has delved into the interplay between bank stability and growth, concluding that strong institutional environments enable financial stability to reinforce growth, rather than hinder it (Bawuah, 2024). Further evidence from low-income Southern African Development Community (SADC) countries reveals that financial development bolsters growth, provided it is supported by institutional robustness and macroeconomic coherence (Mlambo, 2024).

A growing body of research incorporates behavioural and environmental dimensions into external balance analysis. For example, patience is identified as a predictor of persistent current account surpluses and foreign asset accumulation, offering a behavioural lens to the study of global imbalances (Nieminen, 2022). In China, how eco-innovation, urbanization, and financial development interact with CO_2 emissions is examined (Ullah et al., 2025). It is found that while urbanization and eco-innovation help to reduce emissions, economic growth and financial development worsen them. It highlights the importance of decoupling growth from environmental degradation to ensure sustainable development.

Financial development and institutional quality emerge as crucial mediators of current account dynamics. The financial liberalization, when coupled with strong institutions, reduces the risk of financial crises in SADC countries, whereas unchecked financial development increases vulnerability (Moyo & Le Roux, 2020). Similarly, the significance of governance indicators, such as law and order and bureaucratic quality, is emphasized in shaping current account balances in developing Asia, particularly in ASEAN countries (Safdar et al., 2021).

In Nigeria, financial and monetary variables such as the broad money supply and interest rates play significant roles in both the short- and long-term (Nathaniel & Biyi Oyeyemi, 2024). Using an Autoregressive Distributed Lag (ARDL) framework, previous researchers demonstrate that structural and monetary variables, such as age dependency, real exchange rates, and broad money supply, significantly influence Nigeria's current account. It reinforces the interplay of demographics, monetary policy, and savings-investment dynamics (Osisanwo et al., 2024).

Beyond national borders, while credit expansion and trade openness can power growth, unchecked credit growth may undermine financial stability (Ergano & Rao, 2025). It is corroborated by underscoring the moderating role of institutional quality, particularly in CFA franc zone countries, suggesting that only sound governance can unlock the benefits of financial deepening (Meniago et al., 2025). In addition, diverse financial sector indicators differently influence growth trajectories in African settings (Ahulu et al., 2021; Ohiomu & Oligbi, 2020).

The interplay between financial development and investment is also complex. While financial development and trade openness individually boost private investment in India, their interaction has a negative effect, suggesting the need for coordinated policy design (Boachie et al., 2020). This discussion is expanded into the ESG domain, showing that financial sector depth amplifies the growth effects of ESG investments in Brazil, Russia, India, China and South Africa (BRICS) economies, particularly in the presence of strong institutions (Manjengwa et al., 2025). It suggests that financial structures not only influence investment and growth but also shape current account dynamics through sustainability-aligned capital flows.

Finally, looking at broader structural themes, several researchers address sustainability and imbalance spillovers across regions. They examine external imbalances in Europe. It consistently points to unsustainable current account positions driven by structural rigidities and inadequate adjustment mechanisms (Sivrikaya & Kurul, 2020; Poulakis

& Kyrkilis, 2024; Cuestas & Monfort, 2021). Meanwhile, many researchers emphasize how global value chain participation, trade integration, and third-country shocks (e.g., oil price shifts) influence external balances, particularly in developing economies (López-Villavicencio & Mignon, 2021; Beirne et al., 2020; Camarero et al., 2025).

Previous studies on the determinants of current account balances have emphasized factors such as trade openness, fiscal policy, institutional quality, commodity dependence, and exchange rate regimes (Ergano & Rao, 2025; Meniago et al., 2025). While these variables provide important insights, the role of financial development in shaping current account sustainability remains underexplored, particularly in the African context. Much of the existing research has concentrated on advanced and emerging Asian economies, where financial development is often examined in relation to growth rather than external balance sustainability. Even when African economies are included, financial development tends to be treated superficially, without accounting for its multiple dimensions, such as money supply, private sector credit, stock market development, and foreign direct investment. This gap in the literature limits both theoretical understanding and policy formulation in regions that remain highly vulnerable to persistent external imbalances.

Against this backdrop, the research is guided by three core research questions: (i) What are the factors that contribute to current account deficits in African economies? (ii) To what extent does financial development influence current account sustainability? and (iii) Through which financial channels (money supply, private sector credit, stock market development, or FDI) are these effects most significant?

The research objectives are threefold. First, it seeks to provide a systematic empirical analysis of multiple financial development indicators and their linkages to current account sustainability, moving beyond the single-variable approaches common in earlier research. Second, it focuses specifically on African economies, generating region-specific evidence from a context where both external imbalances and financial underdevelopment are especially pronounced. Third, it employs a dynamic panel GMM framework, which allows for robust estimation by addressing endogeneity and capturing the persistence of current account dynamics. In doing so, the researchers contribute to the literature by extending the discourse on current account sustainability to include the financial development dimension, offering a more nuanced understanding of its effects. It also provides new insights for policymakers on how financial development can be harnessed to improve external resilience, reduce vulnerabilities, and promote sustainable growth in African economies.

METHODS

The research builds on the intertemporal model of the current account, which explains how a representative agent, assumed to live indefinitely, manages consumption over time by borrowing or lending internationally. The model provides a framework for understanding the optimal evolution of the current account balance. Foundational contributions by Trehan and Walsh (1991) and Husted (1992) inform this approach, which has since been empirically validated across a wide range of economies. Within this framework, financial development is expected to shape how economies smooth consumption, finance investment, and respond to external shocks, thereby influencing the sustainability of current account positions.

The research utilizes secondary data to examine the relationship between financial development and current account sustainability in Africa. Annual aggregate data covering 16 West African countries for the period 2010 to 2023 are drawn from the World Development Indicators (WDI) database. These countries are selected based on the availability and comprehensiveness of data, ensuring reliability and consistency. The longitudinal nature of the dataset allows for an assessment of long-term patterns, including the effects of major global disruptions such as the COVID-19 pandemic, on both financial development and external balances.

To investigate these relationships, the research employs the GMM for panel data analysis. The GMM approach is particularly well-suited because it addresses three empirical challenges common in current account studies: endogeneity between financial development and external balances, unobserved country-specific heterogeneity, and autocorrelation in dynamic panel settings. Its flexibility and robustness have made it a preferred technique in testing the intertemporal model, particularly for emerging and developing economies (Osisanwo et al., 2024). In the African context characterized by small open economies, limited financial integration, commodity dependence, and vulnerability to external shocks, GMM provides a robust tool for analyzing persistence and identifying the drivers of current account dynamics. While cointegration between exports and imports is emphasized to assess long-run sustainability, contemporary applications increasingly rely on GMM to capture short- and medium-term adjustments that underpin the intertemporal current account framework (Husted, 1992).

The explanatory variables are selected to capture multiple dimensions of financial development and their potential influence on external sustainability. Credit to the private sector reflects the depth of financial intermediation (Oyadeyi & Akinbobola, 2022), where efficient credit allocation can support investment in tradable sectors, reduce import dependence, and strengthen current account balances.

The money supply serves as a proxy for the banking sector's liquidity (Ilo et al., 2018), with theory suggesting that greater liquidity, if directed toward productive use, can expand domestic production and exports, thereby improving current account sustainability. Stock market capitalization represents capital market development, which facilitates long-term financing of investment through stocks and shares in the capital market. However, in Africa, underdeveloped markets may limit its impact (Ilo et al., 2018; Badibanga, 2022).

Beyond these financial indicators, the study also includes macroeconomic controls: FDI as a source of external capital that may enhance current account sustainability when aligned with national priorities; exchange rate as a measure of price competitiveness, expected to influence trade balances; and terms of trade as an indicator of external revenue strength, particularly relevant in commodity-dependent economies (Altayligil & Çetrez, 2020; Ali & Audi, 2023; Akonnor, 2024). The empirical model is specified as a dynamic panel regression as follows:

$$CAS_{it} = \alpha + \rho CAS_{it-1} + \beta_1 CPS_{it} + \beta_2 MS_{it}$$

$$+\beta_3 SMC_{it} + \gamma_1 TOT_{it} + \gamma_2 FDI_{it} + \gamma_3 EXR_{it} + \varepsilon_{it}$$

It shows CAS_{it} as the current account sustainability for country *i* at time *t*, and CAS_{it-1} as the lagged value of current account sustainability, capturing the model's dynamic nature. Then, TOT_{it} represents trade openness for country *i* at time *t*. The FDI_{it} denotes FDI for country *i* at time *t*. It also includes SMC_{it}, the stock market capitalization for country *i* at time *t*. Next, CPS_{it} refers to credit to the private sector for country *i* at time *t*. MS_{it} is the money supply for country *i* at time *t*, and EXR_{it} represents the exchange rate for country *i* at time *t*. Meanwhile, there are also α as a constant term, ρ *(rho)* as the coefficient for the lagged dependent variable, $\beta_1, \beta_2, \beta_3$ as the coefficients for the financial development proxies, $\gamma_1, \gamma_2, \gamma_3$ as the coefficients for the mediating variables, and ε_{it} as the error term.

RESULTS AND DISCUSSION

Table 1 presents the descriptive statistics of the key variables: current account sustainability, credit to the private sector, money supply, stock market capitalization, exchange rate, FDI, and terms of trade. Descriptive statistics are important because they provide an overview of the data's central tendencies, variability, and distributional characteristics, which in turn reflect the structural and macroeconomic realities of African economies. Interpreting these results helps to contextualize the empirical findings within the conditions of the study area and to understand the dynamics that shape the relationship between financial development and current account sustainability.

For current account sustainability, the mean (4.40) is substantially higher than the median (0.29), indicating a right-skewed distribution. This reflects the persistence of large surpluses or deficits in a few countries, highlighting the uneven nature of external balances across the continent. Similarly, credit to private sector (mean = 25.78, median = 14.26) and stock market capitalization (mean = 26.97, median = 1.00) show wide gaps between their mean and median values, pointing to the presence of extreme cases where a small number of countries have relatively more developed credit markets and stock exchanges, while the majority remain financially shallow. By contrast, terms of trade is more symmetrically distributed (mean = 68.59; median = 67.88), underscoring the common structural reliance of African economies on commodity trade.

The standard deviations also reveal meaningful insights. Exchange rate (206.53) and stock market capitalization (74.17) display particularly high variability, reflecting the volatility of exchange rates and capital market fluctuations in many African countries. This volatility contributes to external imbalances and complicates current account management. Current account sustainability (11.61) and FDI (14.63), on the other hand, show lower variability, suggesting relatively more stable performance in external balances and foreign capital inflows. However, stability here may mask underlying structural dependence on a few sources of revenue.

Distributional tests further reinforce these observations. Positive skewness in credit to private sector (2.68), stock market capitalization (3.04), and FDI (5.41) indicates that only a handful of countries experience high levels of financial development, while the majority lag far behind. Extreme kurtosis values in FDI (39.36) and stock market capitalization (10.64) also confirm the dominance of outliers, which reflect the concentration of capital markets and investment inflows in a few large economies, leaving most countries marginalized. In terms of trade, the nearly symmetric distribution (skewness = 0.23) highlights how widespread commodity dependence is across the continent.

The Jarque-Bera test results reject normality for all variables, except terms of trade (p = 0.4198), confirming significant deviations from normal distribution. This result not only justifies the use of robust econometric methods, such as GMM, but also reflects the structural heterogeneity of African economies. These deviations may suggest the presence of skewness and excess kurtosis arising from macroeconomic volatility, structural breaks, and cross-country differences in economic and financial conditions. This result not only justifies the use of robust econometric methods, such as GMM, which are consistent under non-normal and heteroskedastic error structures, but also reflects the structural heterogeneity of African economies in terms of institutional quality, exposure to external shocks, and stages of economic and financial development.

Table 1 Results of Descriptive Analysis for the Studied Variables

	CAS	CPS	MS	SMC	EXR	FDI	TOT
Mean	4.3965	25.7785	41.4984	26.9678	206.5319	4.3694	68.5913
Median	0.2900	14.2600	26.8800	1.0000	83.5400	1.5100	67.8800
Maximum	41.9100	142.4200	140.8000	322.7100	527.3400	120.6700	130.7800
Minimum	-33.1800	2.2200	0.0000	0.0000	0.9000	-18.9200	16.3500
Std. Dev.	11.6068	32.8241	32.7032	74.1712	221.1197	14.6253	25.7819
Skewness	0.5911	2.6751	0.8937	3.0412	0.4931	5.4077	0.2275
Kurtosis	4.6978	8.5750	2.9402	10.6446	1.3758	39.3556	2.6218
Jarque-Bera	21.2238	296.0393	15.8604	473.2080	17.9016	7133.591	1.7355
Prob.	0.0000	0.0000	0.0003	0.0000	0.0001	0.0000	0.4198
Observation	119	119	119	119	119	119	119

Note: Current Account Sustainability (CAS), Credit to the Private Sector (CPS), Money Supply (MS), Stock Market Capitalization (SMC), Exchange Rate (EXR), Foreign Direct Investment (FDI), and Terms of Trade (TOT).

Source: Authors' Compilation (2025)

Table 2 Results of Panel Unit Root Test

	Levin, Lin, and Chu (LLC) T*	ADF - Fisher Chi-Square	PP - Fisher Chi-Square
CAS	-1.5944 (0.0554)	26.4090 (0.0908)	22.1129 (0.2270)
D(CAS)	-10.5575 (0.0000)*	-8.0559 (0.0000)*	98.8636 (0.0000)*
CPS	-0.9243(0.1777)	28.6503 (0.1551)	19.3028 (0.6266)
D(CPS)	-10.3880 (0.0000)*	-8.9995 (0.0000)*	104.373 (0.0000)*
MS	-0.1081 (0.4569)	20.0457 (0.5802)	21.1222(0.5132)
D(MS)	-10.4529 (0.0000)*	117.2250(0.0000)*	126.5450(0.0000)*
SMC	-6.9964 (0.0000)*	39.5492 (0.0001)*	20.0627 (0.0659)**
EXR	-7.5101 (0.0000)*	53.6924 (0.0001)*	77.5703 (0.0000)*
FDI	-2.6702 (0.0038)*	44.9864 (0.0027)*	47.5130 (0.0013)*
TOT	-2.8620 (0.0021)*	46.9111 (0.0015)*	38.5751 (0.0158)*

Note: Probabilities for Fisher tests are computed using an asymptotic chi-square distribution. All other tests assume asymptotic normality. It also has *5% and **10%. D is the first difference of the variable. The table shows Augmented Dickey-Fuller (ADF), Phillips-Perron (PP), Current Account Sustainability (CAS), Credit to the Private Sector (CPS), Money Supply (MS), Stock Market Capitalization (SMC), Exchange Rate (EXR), Foreign Direct Investment (FDI), and Terms of Trade (TOT).

Source: Authors' Compilation (2025)

Furthermore, given the heterogeneity of African economies, the dataset exhibits instances of missing values and structural outliers. Missing observations are treated using an unbalanced panel approach, allowing all available country-year data to be retained without interpolation, to ensure robustness. Extreme outliers detected in variables, such as stock market capitalization and FDI, are winsorized at the 1st and 99th percentiles to reduce the influence of highly skewed values while preserving underlying variation. Variables expressed on different scales (e.g., exchange rates, stock market capitalization) are transformed into ratios relative to Gross Domestic Product (GDP) where appropriate, ensuring comparability across countries. At the same time, normality tests indicate non-Gaussian distributions for most variables, further justifying the use of robust GMM estimation to account for distributional irregularities. The descriptive results, therefore, underscore the unevenness of financial development, the volatility of exchange rates and stock markets, and the persistent imbalances in current accounts, all of which frame the empirical challenge of linking financial development to external sustainability.

The panel unit root tests in Table 2 are conducted using Levin, Lin, and Chu (LLC), Augmented Dickey-Fuller (ADF)-Fisher chi-square, and Phillips-Perron (PP)-Fisher chi-square methods to examine the stationarity properties of the variables. The results show that current account sustainability, credit to the private sector, and money supply are non-stationary at the level across most tests. However, all three variables become stationary after first differencing (I(1), as indicated by significant p-values across the tests. On the other hand, stock market capitalization, exchange rate, FDI, and terms of trade are stationary at levels (I(0)), with all tests confirming significant p-values below 5%. The results are largely consistent across the three-unit root test methods, providing confidence in the robustness of the stationarity properties for each variable. The panel unit root test results confirm the mixed integration properties of the variables, necessitating the use of a dynamic panel estimation technique. Panel GMM is particularly appropriate for the research, as it addresses endogeneity, autocorrelation, and the complexities of the data. Therefore, it ensures robust and credible results.

Table 3 Results of GMM Estimation of Financial Development and Current Account Sustainability

Dependent Variable: CAS				
Method: Panel Generalized Method of Moments				
Variable	**Coefficient**	**Std. Error**	**T-Statistic**	**Prob.**
CAS (-1)	0.2065	0.0884	2.3342	0.0218*
CPS	-0.0923	0.0691	-1.3339	0.1856
MS	0.0553	0.0104	5.2940	0.0000*
SMC	0.0183	0.0269	0.6833	0.4962
EXR	-0.0274	0.1009	-0.2721	0.7862
FDI	0.2365	0.2536	0.9324	0.3536
TOT	-0.0350	0.1459	-0.2403	0.8106
Effects Specification				
Cross-Section Fixed (First Differences)				
Mean Dependent Variable	0.5847	**Standard Deviation of the Dependent Variable**		8.9116
Standard Error of Regression	10.0747	**Sum of Squared Residuals**		9033.5500
J-Statistic	4.1396	**Instrument Rank**		11
Prob. (J-Statistic)	0.3874			
Wald Test:				
Test Statistic	**Value**	**Degree of Freedom**		**Probability**
F-Statistic	18254.42	(2, 89)		0.0000
Chi-Square	36508.84	2		0.0000

Note: Significance Level: * 5%; ** 10%. Current Account Sustainability (CAS), Credit to the Private Sector (CPS), Money Supply (MS), Stock Market Capitalization (SMC), Exchange Rate (EXR), Foreign Direct Investment (FDI), and Terms of Trade (TOT).

Source: Authors' Compilation (2025)

The research investigates the determinants of current account sustainability using a panel GMM estimation with a first-difference transformation, as presented in Table 3. The coefficient for the lagged dependent variable, CAS(-1), is positive and statistically significant (0.2066, p = 0.0218). This result confirms the persistence of current account positions in African economies, suggesting that past imbalances are carried forward into the present. Such persistence reflects structural rigidities and macroeconomic dynamics, such as heavy dependence on commodity exports, limited diversification, and slow adjustment mechanisms, that make external imbalances difficult to correct. This finding aligns with the intertemporal approach to the current account, which posits that external positions are influenced by forward-looking saving and investment behavior (Trehan & Walsh, 1991; Husted, 1992).

The relationship between credit to the private sector and current account sustainability is negative and insignificant (-0.0923, p = 0.1856). This result implies that credit expansion in African economies has not translated into improvements in external balances. Instead, much private credit may be channeled into consumption or unproductive sectors, rather than into export-enhancing or import-substituting investments. This outcome highlights weaknesses in financial intermediation and regulatory frameworks, consistent with arguments that shallow or inefficient credit markets can exacerbate vulnerabilities rather than foster sustainability (Oyadeyi & Akinbobola, 2022).

In contrast, money supply exerts a positive and highly significant effect on current account sustainability (0.0553, p < 0.0001). This result underscores the role of monetary deepening in supporting external stability, likely through its effect on domestic production capacity and trade competitiveness. The result resonates with studies, such as Bousnina and Gabsi (2022), Altayligil and Çetrez (2020), and Faruq and Chowdhury (2025), which have emphasized the critical role of liquidity and banking sector development in sustaining external balances. For African economies, this result suggests that carefully managed monetary expansion can enhance resilience, provided it supports productive investment rather than fueling inflationary pressures.

Stock market capitalization is positive but statistically insignificant (0.0184, p = 0.4962). This result reflects the underdeveloped state of capital markets across most African economies, where stock exchanges are small, illiquid, and often dominated by a few large firms. Consequently, equity markets have limited capacity to mobilize resources that directly influence external accounts. Similarly, the exchange rate shows a negative and insignificant relationship with current account sustainability (-0.0275, p = 0.7862). This result suggests that exchange rate adjustments alone have not effectively improved current account balances in the region, possibly due to structural rigidities, high import dependence, and limited export diversification.

FDI is positive but not significant (0.2365, p = 0.3536). While FDI has the potential to support current account sustainability by financing productive investment and enhancing export capacity, many African economies' inflows are concentrated in extractive industries. This situation weakens their contribution to long-term external sustainability, unless complemented by policies that channel FDI toward sectors with stronger linkages to domestic production. Terms of trade also display a negative and insignificant effect (-0.0351, p = 0.8106), reflecting the vulnerability of African economies to global commodity price swings and the limited scope for trade terms alone to stabilize external balances.

Diagnostic tests support the robustness of the model. The J-statistic confirms the validity of the instruments, while the Wald test indicates that the explanatory variables are jointly significant in explaining current account sustainability. Together, these tests validate the model's specification and underscore the relevance of the included variables.

The results emphasize the importance of monetary policy in influencing external account balances, providing valuable insights for policymakers seeking to manage current account sustainability effectively. It aligns with the findings of Akonnor (2024). Using a panel cointegration model, they demonstrate that financial sector development, particularly improvements in credit intermediation and regulatory efficiency, enhances external balance stability in West African economies. They underscore the need to align financial sector reforms with macroeconomic stabilization strategies to achieve sustainable current account outcomes.

To enhance financial development and support current account sustainability, African economies should prioritize reforms to improve the efficiency of credit allocation and expand access to financial services, particularly for underserved sectors. A well-functioning financial system can boost domestic production and reduce reliance on imports, thereby supporting external sustainability. Moreover, central banks should maintain a stable and predictable money supply growth to foster productive investments while minimizing inflationary pressures. Simultaneously, efforts should be directed toward attracting FDI into sectors that enhance export capacity or substitute imports, ensuring that foreign investments align with domestic development priorities.

Beyond financial reforms, African economies must reduce dependency on primary commodities by investing in value-added industries, manufacturing, and technology. Export diversification will stabilize external revenues and reduce vulnerability to global commodity price shocks. At the same time, strengthening regional trade agreements and promoting intra-African trade can mitigate exposure to global economic shocks, diversify trade relationships, and bolster current account sustainability. Then, establishing fiscal and monetary buffers will further enhance resilience against global financial turbulence.

Collectively, these measures will help to address structural inefficiencies, deepen financial development, and create a robust foundation for sustainable current account balances over the long term.

CONCLUSION

The research examines the relationship between financial development and current account sustainability in African economies using a dynamic panel GMM framework. The findings highlight the persistence of external imbalances, as the lagged current account significantly influenced future balances. Money supply, a proxy for financial development, has a positive and statistically significant effect on current account sustainability, suggesting that monetary expansion may support external stability through its impact on domestic production and exports. In contrast, credit to the private sector shows a negative but insignificant effect, reflecting inefficiencies in financial intermediation and the challenges of translating credit expansion into productive outcomes that strengthen external balances. Stock market capitalization also demonstrates an insignificant effect, pointing to the underdeveloped nature of capital markets in many African economies. While FDI is positively associated with current account performance, its effect is not strong enough in isolation, underscoring the need for strategic alignment of FDI with national development objectives. Terms of trade and exchange rate variables display weak or insignificant relationships, reflecting structural challenges such as commodity dependence and exchange rate volatility.

The results carry important policy implications for African economies seeking to strengthen external resilience. Monetary authorities should maintain a predictable and stable money supply growth to stimulate investment and support export-oriented production. At the same time, credit policies must be restructured to improve the efficiency of credit allocation, so that private-sector borrowing translates into value-added activities with a direct impact on external balances. Efforts should also be made to deepen stock markets, improving their role in mobilizing long-term finance and reducing reliance on external borrowing. Policymakers should ensure that FDI is channelled into sectors that promote export diversification or reduce import dependence, maximizing its contribution to current account sustainability. Beyond these financial-sector measures, broader structural reforms, such as investment in manufacturing, value-added industries, and technological innovation, are necessary to reduce commodity dependence. Regional integration initiatives, including intra-African trade and financial cooperation, can further enhance resilience to global shocks and foster more sustainable external positions.

Despite its contributions, the research is not without limitations. The use of aggregate indicators may obscure country-specific dynamics, particularly institutional and governance factors that are critical to the finance–current account nexus. In addition, proxies, such as money supply and credit to the private sector, capture only quantitative aspects of financial development and may overlook qualitative dimensions such as financial inclusion, efficiency, and regulatory effectiveness. The analysis also does not explicitly account for external shocks like commodity price volatility, climate risks, or geopolitical developments, all of which have significant implications for external balances. Therefore, future research should adopt country-level analyses to better reflect institutional heterogeneity, integrate measures of financial inclusion and digital finance to capture evolving sectoral dynamics, and explore nonlinear effects that may emerge under varying levels of financial development and institutional quality. Further research can also examine how financial development interacts with regional integration, ESG finance, and climate-related risks in shaping current account sustainability across African economies.

AUTHOR CONTRIBUTIONS

Conceived and designed the analysis, E. L.; Collected the data, E. L. and R. A. F.; Contributed data or analysis tools, E. L.; Performed the analysis, E. L.; Wrote the paper, E. L.; Wrote some parts of the literature review and introduction section, R. A. F.; and Proofread the article and checked the grammatical errors, R. A. F.

DATA AVAILABILITY

The data that support the findings of the research are openly available in Zenodo at https://doi.org/10.5281/zenodo.17400131.

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