International Journal of Innovative Research and Scientific Studies, 8(3) 2025, pages: 3776-3785

IJIRSS
International Journal of Innovative Research & Scientific Studies

ISSN: 2617-6548

URL: www.ijirss.com

Capital flight, institutional quality, and economic growth: Evidence from African economies

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Abstract

This paper examines the impact of capital flight on economic growth in Africa, highlighting the crucial role of institutional quality. Through an econometric analysis of data from 28 African countries observed during the 2000-2022 period, it is shown that capital flight significantly hinders growth by reducing the resources available for economic development. However, strong institutions can mitigate this negative impact through transparent and effective governance, notably by reducing corruption and enhancing political stability. The study recommends improving institutional quality to limit illicit financial flows and promote sustainable growth, while also emphasizing significant income-based disparities between countries.

Keywords: Africa, capital flight, economic growth, institutional quality.

DOI: 10.53894/ijirss.v8i3.7387
Funding: This study received no specific financial support.
History: Received: 24 March 2025 / **Revised:** 25 April 2025 / **Accepted:** 28 April 2025 / **Published:** 26 May 2025

Competing Interests: The author declares that there are no conflicts of interests regarding the publication of this paper.
Transparency: The author confirms that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.
Publisher: Innovative Research Publishing

1. Introduction

Capital flight is a critical issue for developing economies, particularly in Africa. In this continent, it threatens financial stability and reduces the resources available for productive investment. Capital flight often reflects economic, political, or institutional instabilities, prompting economic players to transfer their assets to foreign markets considered safer. In this regard, institutional quality is of paramount importance in limiting these harmful financial flows and promoting sustainable economic growth. It covers dimensions such as the fight against corruption, government efficiency, regulatory transparency, political stability, and the rule of law.

This paper explores the complex dynamics between capital flight and institutional quality in Africa, using a rigorous econometric analysis. The data, covering 28 African countries over a 23-year period (2000-2022), shed light on the interaction between these two variables and their respective impacts on economic growth. The study uses a sophisticated econometric model integrating key indicators such as GDP, institutional quality, and a number of macroeconomic parameters such as inflation, gross capital formation, and domestic credit. It also proposes an innovative approach by examining the effects of interactions between capital flight and institutional quality on economic growth.

In addition to a quantitative analysis, this paper offers an in-depth account of the mechanisms through which institutional quality can mitigate the negative effects of capital flight. It examines the significant disparities between low- and medium-income African countries and highlights the crucial role of strong institutions in better exploiting domestic resources and creating a positive investment climate. The findings provide valuable insights for policymakers and international institutions, underlining the urgency of strengthening governance and promoting inclusive economic policies. By offering a detailed analysis of the interactions between institutional quality and capital flight, this paper has the merit of enriching the scientific debate on the challenges and opportunities of economic development in Africa.

1.1. Theoretical Background to the Study

Capital flight, manifested by abnormal financial outflows from African economies, is an observable obstacle to their growth and development. The problem is worsened by institutional flaws, poor governance and the inability of local economic policies to contain these outflows. The 1980s marked the beginning of a growing awareness of the scale of these losses. Studies have shown that Africa has lost billions of dollars of capital destined for productive investment, causing gaps in public financing and hampering economic and social development.

These transfers not only affect wealth distribution but also exacerbate social inequalities. In Africa, scarce resources that should have been allocated to strategic sectors such as health and education are often diverted to unproductive uses abroad. As a result, dependence on external financing intensifies, increasing the vulnerability of these countries to global economic crises. For example, tax havens attract a substantial amount of illicit capital, exacerbating the loss of resources that could support local projects. This context underlines the need for proactive policies to curb the phenomenon and boost domestic investment.

The theory about capital flight reports to several dimensions. Firstly, its definitions and measures differ in the literature. Some researchers, such as Ndikumana [1] distinguish between normal (recorded) flows and illicit or unrecorded flows. Such a classification relies on methods such as that of the World Bank's residual approach or false commercial invoicing. These tools make it possible to quantify the scale of capital escaping government control.

Secondly, its determinants include both macroeconomic and institutional variables. For example, environments marked by political instability, excessive inflation, or poor governance amplify the risk of capital flight. Local elites, often constrained by unjust tax regimes, opt to invest abroad, thus exacerbating capital flight. Corruption also plays a pivotal role in this process, facilitating the removal of funds from the local economy and their transfer to low-transparency areas such as tax havens.

Thirdly, the impact of these flows on African economies is significant. Capital flight contributes to reducing locally invested capital, thus limiting countries' capacity to produce goods and services. This slows growth, reduces the number of jobs available and increases poverty. In addition, resources that could have financed public infrastructure end up tied up in offshore accounts. The interactions between capital flight and institutional quality suggest that improvements in governance (such as better regulation and anti-corruption) could mitigate this issue.

2. Literature Review

Capital flight has been the subject of numerous studies in developing countries, especially in Africa. This phenomenon is generally defined as unofficial, often illegal, financial flows leaving a country to escape unfavorable macroeconomic or institutional conditions. Ndikumana and Boyce [2] highlight that such leakages are amplified in African countries by weak institutions and poor governance. These factors have exacerbated illicit financial flows and limited the resources available to finance economic development.

Estimation methods of capital flight include residual approaches, manipulated trade invoicing and measures of “losses and omissions” in balances of payments [3]. The residual method developed by the World Bank, for example, measures the gap between the resources generated by a country (such as external borrowing and foreign investment) and their use in the economy, considering any unexplained gap to represent capital flight. This method is widely used to assess the financial losses of African countries.

As for its determinants, the literature highlights macroeconomic and institutional factors. High inflation, for example, erodes the value of local assets and encourages investors to transfer their funds abroad [4]. Persistent budget deficits and political risks, such as government instability or conflict, are other important factors [5]. In addition, corruption is identified as a key determinant, reinforcing capital outflows through practices of embezzlement of public funds and bribery, as reported by Asongu and Nwachukwu [6].

The impact of capital flight on economic growth is significant and often negative. Collier et al. [7] show that capital flight reduces domestic investment, limits job creation opportunities and increases poverty. In Africa, the resources lost through these illicit flows, estimated by Kar and Cartwright-Smith [8] at over $1,000 billion over the past 50 years, could have financed essential public infrastructure and services. Furthermore, misallocation of resources exacerbates economic and social inequalities, as Moulemvo [9] points out.

Recent studies have also emphasized the role of governance and institutions in combating capital flight. Ndikumana [10] suggests that strong institutions, able to improve transparency and enhance accountability, can play a moderating role. For example, targeted institutional reforms, combined with balanced tax policies and better regulation, help to reduce the incentives for capital flight. Moreover, Tchamyou and Asongu [11] indicated that countries with well-functioning judicial systems and stable regulatory frameworks experience lower capital flight levels.

In regional communities such as ECOWAS and SADC, comparative studies by Tameko [12] show that the impact of capital flight on economic growth varies according to governance quality and institutional stability. Economies with more

robust institutions appear to be less vulnerable to this phenomenon, reinforcing the idea that institutional quality plays a crucial role in limiting financial losses due to these outflows.

3. Methodology

3.1. The Model

In order to understand the impact of capital flight on economic growth and the importance of institutional quality, the following econometric model was developed:

The formulated model takes the following structural shape:

$$\ln \_GDP_{it} = \alpha_i + \alpha_1 CF_{it} + \alpha_2 QI_{it} + \alpha_3 \mathrm{CF}_{it} * QI_{it} + \alpha_4 GCF_{it} + \alpha_5 INF_{it} + \alpha_6 DCP_{it} + \varepsilon_{it} \quad (1)$$

Where $\mathrm{Ln\_GDP_{it}}$ denotes gross domestic product; $\mathrm{CF_{it}}$ is Capital Flight defined as the attempt to transfer massive amounts of currency from one country to another, in search of protection against an unfavorable economic, political or financial situation? QI_{it} represents the institutional factors, namely the corruption control index (CC), government efficiency (GE), regulatory quality (RQ), rule of law (RL) and political stability (PS) and absence of violence/terrorism. (VA), $\mathrm{CF_{it}} * \mathrm{QI_{it}}$ is the interaction term capturing the combined effect of Capital Flight and institutional factors on the examined outcomes? GCF denotes gross capital formation; INF denotes inflation; DCP denotes domestic credits and $\alpha_1; \alpha_2; \alpha_3; \alpha_4; \alpha_5$; α_4 are the parameters to be estimated? ε denotes the error term. The data sources are described in Table 1. This study examines quantitative data drawn mainly from the World Bank's World Development Indicators database.

Table 1.
Data description and sources.

Variable	Definition	Source
CF	Capital Flight	https://databank.worldbank.org
QI	Quality of Institutions	World Bank's World Governance Indicators (WGI) from (https://databank.worldbank.org/source/worldwide-governance-indicators)
GDP	GDP per capita (constant LCU)	World Bank's World Development Indicators (WDI) (https://datacatalog. World Bank. org/datasets/ world-development-indicators)

Because of the unavailability of some country-specific data, we retained 28 African countries observed during the 2000-2022 period. Table 2 shows income-based sample countries, i.e., low, medium, and high.

Table 2.
List of sample countries.

Country	Income
Algeria	Medium
Angola	Medium
Botswana	Medium
Burkina Faso	Low
Burundi	Low
Cameroon	Medium
Congo, Dem. Rep	Low
Congo, Rep	Medium
Ivory Coast	Medium
Egypt. Arab Rep.	Medium
Ethiopia	Low
Gabon	Medium
Ghana	Medium
Kenya	Medium
Mauritania	Medium
Morocco	Medium
Mozambique	Low
Nigeria	Medium
Rwanda	Low
Seychelles	High
Sierra Leone	Low
South Africa	Medium
Sudan	Low
Tanzania	Low
Tunisia	Medium
Uganda	Low
Zambia	Medium
Zimbabwe	Medium

3.2. Descriptive Analysis

Table 3 shows the data for each variable. First of all, we found a significant variation in the number of observations made from one variable to another. Such variation depends on data availability and the reference time period. Indeed, out of 573 observations, including 28 African countries, it seems that capital flight reached an average of 3.059%, with results ranging from a minimum of 0.499% to a maximum of 4.752%, well above the level predicted for other variables. As for the economic growth variable, it records fairly low mean, standard deviation, minimum, and maximum values compared to the rest of the variables. It can be concluded, then that there are major disparities between the scale of capital movements and economic progress.

Similarly, as our descriptive analysis shows, it is clear that over these 23 years, the inflation rate was around 0.865%, reaching a maximum of 3.681% while remaining at a minimum level of -1.256%. For institutional quality, the same reasoning applies, bearing in mind that values vary moderately over time from one variable to another. However, corruption has an average of around 1.346%, while government effectiveness stands at 1.359%; yet there is a disparity in the minimum level, with values ranging from -0.324% for corruption to 0.034% for government effectiveness.

Table 3.
Descriptive statistics.

Variable	*Observation*	*Mean*	*Standard Dev*	*Minimum*	*Maximum*
GDP	573	0.661	0.310	-1.009	1.422
CF	443	3.059	0.710	0.499	4.752
GCF	608	1.328	0.231	-0.533	1.900
INF	581	0.865	0.548	-1.256	3.681
DCP	554	1.172	0.397	-0.309	2.154
CC	559	1.346	0.426	-0.324	1.930
GE	560	1.359	0.380	0.034	1.919
PS	557	1.304	0.445	-0.276	1.964
RQ	560	1.387	0.365	-0.009	1.887
RL	560	1.327	0.435	-0.320	1.855
VA	560	1.374	0.308	0.391	1.869

The correlation matrix shown in Table 4 is essential for our estimation. Our study shows that the correlation between CF and GCF is 0.0929%, or even 0.0766% for INF, or 0.2649% for DCP, revealing a perfect match with the evolution of these variables. Correlation between capital flight and economic growth is only slightly less observable, but negative (-0.1279%).

Correlation between the variables in question indicates that they are weakly correlated. According to Kennedy [13], multi-collinearity is detected when the correlation coefficient exceeds the threshold of 0.75. Given the weakness of all the coefficients present in this matrix, multi-collinearity is no issue for this study.

Table 4.
Correlation matrix.

	GCF	INF	DCP	GDP	CF
GCF	1				
INF	-0.0015	1			
DCP	0.1603	-0.2756	1		
GDP	0.0918	0.0427	-0.2477	1	
CF	0.0929	0.0766	0.2649	-0.1279	1

3.3. Preliminary Tests

3.3.1. VIF Test

With this in mind, the variance inflation factor (VIF) test is then used to further assess multicollinearity. This test provides a precise measure of the growth in variance of the different regression factors already mentioned when the independent variables are not taken into account in the regression model.

Table 5 shows the VIF results. All the values have an average of 3.616, then it is clear that there is no multi-collinearity problem. Moreover, as all the VIF values for our variables are lower than 10, there is a clear lack of multi-linearity, validating the result obtained from the correlation matrix.

Table 5.
VIF test.

	VIF	1/VIF
RL	*7.788*	*0.128*
GE	*7.521*	*0.133*
RQ	*5.925*	*0.169*
CC	*3.195*	*0.313*
PS	*2.845*	*0.351*
VA	*2.637*	*0.379*
DCP	*2.507*	*0.399*
GCF	*1.348*	*0.742*
CF	*1.208*	*0.828*
INF	*1.186*	*0.843*
Mean VIF	*3.616*	

3.3.2. Heteroscedasticity Test

The concept of heteroskedasticity refers to data with variations that are not constant, i.e., Var (e) $2 \neq \sigma e$. Heteroscedastic variability results in a bias-free coefficient estimate. In this case, the usual deduction becomes invalid, given that the standard deviation found is not the correct one. As this is a common occurrence in data, heteroscedasticity is important to be aware of. To detect heteroscedasticity, there are several similar tests. Among these, the White [14] tests are designed to detect heteroscedasticity, which undermines the consistency of conventional estimates of the various parameters used in linear regressions. We can conclude from Table 6 that the null hypothesis is strongly accepted, with the rejection of the alternative

hypothesis, resulting in a homogeneity of variances with an identical distribution of model errors. In addition, the estimates of the linear regression parameters show a conventional level of reliability.

Table 6.
Heteroscedasticity test.

Test	P-value
Breusch-Pagen Test	0.2676

4. Results

4.1. The Impact of Capital Flight on Economic Growth

The results presented in Table 7 show that capital flight negatively and significantly affects economic growth (-0.146***). Such results corroborate those of Isola et al. [15], which concluded that capital flight impedes economic growth in the long term in Nigeria. The same results were found by Ndiaye [16] and Sodji [17], who confirm the negative impact of capital flight on Africa's economic growth rates.

Then, the phenomenon in question contributes to a large extent to weakening African capital. This will slow down economic growth in the affected countries, as the financial resources and means required to develop the production of goods and services are considerably reduced. Furthermore, the control variables derived from the different estimates showcase a set of relationships that can both highlight the link between economic growth and economic fundamentals and improve the quality of life.

On the other hand, inflation has a significantly negative impact. It should be noted, however, that according to Agyeman et al. [18], high and unstable inflation levels can lead to economic uncertainty, which can affect economic growth and investment. Moreover, these countries have a significant deficit in their own domestic credit DCP, part of which appears to be invested abroad, in the markets of advanced economies. Consequently, a correlation between domestic savings and investment observed in the African continent is a priori limited. Nevertheless, the capital flight phenomenon has shown that, irrespective of their origin, these outflows are at the root of critical circumstances in these economies, particularly in terms of external financing requirements, which ultimately slow down economic growth.

Table 7.
Results of the impact of capital flight on economic growth.

Variables	**GDP**
L.GDP	0.0608* (0.0335)
CF	-0.146*** (0.0442)
GCF	0.523 (0.427)
INF	-0.130*** (0.0455)
DCP	-0.363** (0.177)
Constant	0.903*** (0.307)
Observations	272

4.2. The Impact of Capital Flight and Institutional Quality on Economic Growth

In order to determine the extent to which institution-building can affect the contribution made by economic players' access to financial services to the economic growth process, Table 8 presents some very interesting results. Indeed, it seems that the Corruption CC variable has an impact on economic growth a negative and significant at the 10% threshold (-0.420***). It disrupts economic progress insofar as it leads to dysfunction in all price formation and, as a result, prevents the proper allocation of resources. Thus, the link between CF and corruption remains very strong, leading not only to illicit financial movements but also facilitating them.

Corruption stems essentially from poor governance, which slows down the establishment of the private sector, as well as the performance of political or market institutions due to the presence of a system of bribes hindering the creation of a market. At the same time, the efficiency of public authorities (GE) has a significant positive impact at the 1% threshold on economic growth. Moreover, as this increase is greatly enhanced in an economy endowed with good governance, it will be of good quality, promoting greater efficiency in gearing these factors towards growth. Proof of this is provided by the use of a solid governance system that encourages, in particular, a well-designed allocation aimed at combating illicit financial flows. As for the variable political stability PS, whatever the specification adopted, the obtained coefficient is positive and significant (0.300**), suggesting that an increase in this variable considerably enhances economic growth for these African territories, whose political climate is particularly stable. In this regard, institutional stability represents the financial system's capacity to withstand shocks and the necessary correction of financial imbalances, including capital flight. On the other hand, regulation quality (QR) has a significantly detrimental impact on economic growth (-0.367**). This leads individuals to make

themselves known and to demand a better living environment from the governing political powers, thus leading to a reduction in the sustained pace of economic activity in general and a decline in sustainable development in particular.

As a result, capital flight is greater, leading to slower economic growth. In addition, we found the "rule of law" variable (RL) significant at the 10% threshold, which also seems to have interesting effects on economic growth. This can be manifested in a process of consultation with citizens, marked by clear publication of rules, absence of discrimination, implementation of concrete binding measures, as well as the predictability and enforceability of the methods used. However, these countries also show a very significant increase in their "voice and accountability" variable. Then, it is clear that strengthening the latter significantly boosts economic growth in these parts of Africa to the extent that it is possible to reduce FC. This amounts to citizens truly taking part in choosing their leaders, notably through the extent of their freedom of expression, association, or media.

Table 8.
Results of the impact of capital flight on economic growth.

Dependent Variable: GDP						
Variables	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
L.GDP	0.187*** (0.0624)	0.234*** (0.0507)	0.162*** (0.0553)	0.124*** (0.0352)	0.175*** (0.0393)	-0.193*** (0.0380)
CF	0.0626** (0.0282)	0.0634** (0.0304)	0.0674** (0.0297)	0.0810*** (0.0207)	0.0749*** (0.0211)	0.0510 (0.0725)
CC	-0.420*** (0.154)	-	-	-	-	-
GE	-	0.391* (0.230)	-	-	-	-
PS	-	-	0.300** (0.136)	-	-	-
RQ	-	-	-	-0.367** (0.349)	-	-
RL	-	-	-	-	0.223** (0.105)	-
VA	-	-	-	-	-	0.682*** (0.241)
GCF	-0.182 (0.258)	-0.119 (0.260)	-0.180 (0.197)	-0.121 (0.205)	0.174 (0.226)	0.150 (0.360)
INF	-0.0699 (0.0948)	-0.0658*** (0.0201)	-0.0477** (0.0237)	-0.0461** (0.0222)	-0.0508** (0.0207)	-0.0926** (0.0466)
DCP	-0.165 (0.148)	-0.645** (0.302)	-0.584*** (0.121)	-0.471*** (0.182)	-0.713*** (0.176)	-0.880*** (0.219)
Constant	1.406*** (0.293)	0.739** (0.304)	0.924*** (0.308)	1.042*** (0.222)	0.662*** (0.215)	0.544 (0.574)
Observations	252	252	252	252	252	252

4.3. The Impact of the Interaction between Capital Flight and Institutional Quality on Economic Growth

Obviously, like with the economic variables, institutional quality is certainly an endogenous variable. Therefore, it is essential to examine in greater depth the interactions between the economic and political spheres, i.e., the links between the political variables that are at the root of capital flight. Table 9 highlights the interaction between the different governance indicators and CF and economic growth. These results clearly show that capital flight is a major brake on economic growth in these countries. The interaction coefficients between capital flight and corruption, those between CF and GE, those between CF and PS and those between CF and RL, also show negative statistical significance, which leads us to believe that economic growth is affected by capital flight, because of a decrease in institutional quality. As a result, African countries are experiencing a significant drop in economic development in the face of such capital flight. At the same time, however, the study shows that these countries are recording a very significant increase in their own "FCRQ" and "FCVA" interactions. It is therefore clear that the consolidation of these interactions contributes strongly to economic growth in these countries, provided that it is possible to reduce FC. Furthermore, our estimation leads to conclusions that support in particular, the preponderance given to these two indicators, i.e., regulation quality and voice and accountability, as factors promoting resistance to illicit financial flows.

Table 9.
Results of the impact of the interaction between capital flight and institutional quality on economic growth.

	Dependent Variable: GDP					
VARIABLES	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**
L.GDP	0.162***	0.146**	0.119**	0.221***	0.0325	0.164***
	(0.0458)	(0.0578)	(0.0574)	(0.0381)	(0.0511)	(0.0256)
CF	0.198**	0.0371	0.0370	-0.103**	0.190***	0.00780*
	(0.0979)	(0.0718)	(0.0374)	(0.0834)	(0.0651)	(0.0824)
CF*CC	-0.108*	-	-	-	-	-
	(0.0642)					
CF*GE	-	-0.0116**	-	-	-	-
		(0.0402)				
CF*PS	-	-	-0.00530*	-	-	-
			(0.0291)			
CF*RQ	-	-	-	0.0916*	-	-
				(0.0549)		
CF*RL	-	-	-	-	-0.0872***	-
					(0.0328)	
CF*VA	-	-	-	-	-	0.0622**
						(0.0580)
GCF	0.0967	-0.319	-0.279	-0.215***	0.437	-0.00249
	(0.145)	(0.223)	(0.200)	(0.0796)	(0.288)	(0.105)
INF	-0.0655**	-0.0444*	-0.0589**	-0.0433**	-0.0809***	-0.0369*
	(0.0255)	(0.0269)	(0.0241)	(0.0216)	(0.0200)	(0.0204)
DCP	-0.413***	-0.292**	-0.260**	-0.536***	-0.235*	-0.540***
	(0.141)	(0.117)	(0.102)	(0.164)	(0.140)	(0.174)
Constant	0.829***	1.318***	1.229***	1.400***	0.184	-0.540***
	(0.278)	(0.352)	(0.307)	(0.201)	(0.355)	(0.174)
Observations	252	252	252	252	252	252

4.4. The Impact of Capital Flight and Institutional Quality on Economic Growth: Estimates using the Composite Index (QI)

The new variable presented in Table 10 represents the Institutional Quality Index (IQ), combined with the existing indicators of institutional quality. This variable, therefore provides a thorough and concrete overview of current governmental practices. It is nevertheless important to highlight the significant role that governance challenges now play in some parts of the world. Thus, the variable (IQ) seems positively significant at the 5% threshold with respect to economic growth, as it should aim towards an approach primarily focused on seeking both progressive and sustainable improvement. As a result, it is a matter of good governance, particularly of institutions, where the methods used and the obtained results are satisfactory.

This allows for an increased stability in the economy, which can both curb capital flight in developing countries, particularly in Africa, while promoting the gradual achievement of the macroeconomic potential of these countries, in line with the study of Asongu and Nwachukwu [6]. It should also be noted that the favourably predicted evolution of the relationship between capital flight and economic growth under the effect of institutional quality (0.165***), in light of the previously estimated adverse trend reported in Table 10. We must therefore strongly emphasize the absolute need for adhering to good governance rules. In addition to conducting a coherent economic policy, it is essential to ensure the stability of the economy by establishing genuine decision-making processes focused on openness, transparency, and accountability. Therefore, institutional quality significantly affects broad economic growth and also negatively impacts capital flows. Institutions should contribute to the economic sphere and their effect is particularly observable on illicit financial flows. Therefore, policies tailored to the situation of each country should be set up to foster their role.

Table 10.
Results using the Composite Index (QI).

	Dependent Variable: GDP
Variables	**QI**
L.GDP	-0.118*** (0.0402)
CF	0.165*** (0.0370)
QI	1.041** (0.493)
GCF	0.569 (0.421)
INF	-0.0823** (0.0392)
DCP	-1.529*** (0.423)
Constant	-0.153 (0.740)
Observations	252

4.5. The Impact of Capital Flight and Institutional Quality on Economic Growth: Estimation by Income Levels

It is important to note that wealth also receives particular attention in each country under study. Accordingly, we propose the following distribution of the different countries in our sample: a group of 17 countries with an intermediate economic income labelled as panel A, to which is added a group of 10 low-income countries labelled as panel B. We have therefore once again opted to study the established relationship between capital flight and economic growth, namely the role played by institutional quality in this relationship, while emphasizing the importance of this distribution.

The results displayed in Table 11, in panel A, show the effective and significant role of capital flight (0.209**) in overall economic growth, highlighting a notable strengthening in the economic stability of the studied countries. Such stability can both hinder capital movements and encourage a progressive achievement of the macroeconomic potential of these countries. In contrast, the results of this estimation for panel B suggest a strong negative impact of capital flight on economic growth (-0.0451***). This is likely to generate economic uncertainty, which in turn, can affect economic growth and investment. In light of this analysis, we can largely confirm the importance of country-level wealth, which represents an opportunity for some mid-income countries to further stimulate their economic growth, unlike other low-income countries facing an economic breakdown due to illicit financial flows that are the cause of critical hardships for the studied economies.

Table 11.
Results of the impact of capital flight on economic growth according to income levels.

VARIABLES	***Dependent Variable: GDP***	
	Panel A	***Panel B***
L.GDP	0.220*** (0.0624)	-0.400* (0.212)
CF	0.209** (0.0884)	-0.0451*** (0.0579)
GCF	-1.415*** (0.446)	0.372 (0.457)
INF	-0.138* (0.0740)	-0.122** (0.155)
DCP	0.475 (0.315)	-0.0774* (0.718)
Constant	1.142 (0.838)	0.855 (0.702)
Observations	159	101

Table 12 presents the results of the estimates of the impact of capital flight and economic growth using the composite index of institutional quality. The results of Panel A show that the effect of the variable (IQ) appears to be positive on economic growth and significant at the 5% threshold, when the aim is an approach primarily based on both progressive and sustainable improvements. It is also clear from the obtained results that institutional quality significantly contributes to economic development in general, while also having a negative impact on capital flows. Unlike panel B, IQ shows a significant and negative coefficient at the 1% level. In other words, within low-income countries, the quality of institutions acts unfavorably on economic growth. Such an effect seems to cause an economic crisis likely to significantly increase capital flight and lead to a general and continuous slowdown in economic growth. It is therefore legitimate to conclude that these countries are undergoing a massive development crisis due to a lack of governance capacity. In this regard, we can therefore

confidently confirm the relevance of the results of our estimates for these countries with good, average, or poor governance, while particularly emphasizing the crucial role of wealth in achieving the said results.

Table 12.
Results of the impact of capital flight on economic growth using the composite index of institutional quality according to income level.

	Dependent Variable: GDP	
VARIABLES	***Panel A***	***Panel B***
L.GDP	0.195** (0.0929)	-0.664 (0.417)
CF	0.0771* (0.0877)	-0.114** (0.493)
QI	3.561** (1.687)	-2.460* (1.877)
GCF	-2.519*** (0.745)	2.984 (3.144)
INF	-0.105*** (0.0351)	-0.466* (0.515)
DCP	-0.888 (0.771)	-2.911** (1.391)
Constant	-0.149 (1.739)	4.086** (1.786)
Observations	144	98

Table 13 presents the results of the estimates of the impact of the interaction between capital flight and economic growth on institutional quality (IQ). Quality institutions are needed to enable public authorities to fully accountable management of the resources at their disposal, while leveraging their expertise to reduce the risk of capital flight. Our results also indicate that it is indeed the interactions between institutional quality and capital movements in panel A that contribute the most to economic growth in a way that affects capital flight. On the other hand, according to the CF*IQ in panel B, which shows a significant negative coefficient at the 5% level, it is therefore likely that this scenario will trigger an economic shock capable of both significantly intensifying capital flight and continuing the general recession and economic growth. In light of the above, we can conclude that the performance of institutions varies depending on the wealth of these countries. Generally, in the presence of so-called medium wealth, economic development tends to be faster and consequently reduces the growth rate of CF. Conversely, a less wealthy economy tends to grow more slowly. Of course, based on these criteria, given the limited or otherwise nature of resources, it is naturally accepted that institutional quality, unlike equity, contributes in a limited way to slowing down movements.

Table 13.
Results of the Impact of the Interactions between Capital Flight and Institutional Quality on Economic Growth by Income Level.

	Dependent Variable: GDP	
VARIABLES	***Panel A***	***Panel B***
L.GDP	0.218** (0.0936)	-0.251 (0.238)
CF	-0.480* (0.308)	1.009** (0.460)
CF*QI	0.403** (0.197)	-0.728** (0.325)
GCF	-1.438*** (0.504)	0.572 (0.715)
INF	-0.0978** (0.0416)	-0.407** (0.190)
DCP	-0.0158 (0.186)	-2.858* (1.477)
Constant	2.164*** (0.693)	3.188* (1.674)
Observations	144	98

5. Conclusion

Capital flight represents a major obstacle to economic development in Africa, depriving nations of the necessary resources to stimulate economic growth and improve living conditions. This phenomenon tends to reduce national investments and limits the ability of local economies to finance essential development projects. This study highlights that institutional quality plays a crucial role in mitigating these negative effects. By strengthening governance, fighting corruption, and promoting transparency, African countries can limit illicit financial flows and improve their economic stability.

Quality institutions promote better resource allocation and increase investor confidence, which is essential for sustainable economic growth. Countries with stronger institutions achieve better economic performance, as shown by the positive impact of government effectiveness and political stability. These factors create an environment conducive to the use of internal and external capital, thereby reducing dependence on foreign financing.

However, the study highlights significant disparities between low- and mid-income countries. Low-income countries, often facing governance crises and endemic corruption, see their development efforts hindered by persistent illicit financial flows. In contrast, mid-income countries exhibit an increased capacity to withstand the effects of capital flight because of more robust institutions. Quality of regulation and rule of law emerge as critical factors to strengthen this resilience and stimulate growth.

Then this paper recommends the importance of good governance for all African countries, regardless of their income. The implementation of coherent and inclusive economic policies, the promotion of transparency and accountability, as well as the systematic fight against corruption, are essential to overcoming the obstacles imposed by capital flight. Moreover, it is essential to integrate these efforts into a broader institutional framework, allowing for the addressing of the specific challenges of each country.

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