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Research Article

The Effect of Economic Freedom on Quality of Life: Exploring the Role of Political Risk Factors in Africa

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Abstract

This article examines economic freedom's impact on quality of life conditional on the political risk factors in Africa over the period 1985–2016, using the Generalised Method of Moments (GMM) estimation technique. The results show that economic freedom has a significant positive effect on the quality of life. However, political risk fundamentals, namely civil liberties, political rights and conflict, cause economic freedom to deteriorate the quality of life in African. These results support North's (1990) argument that political institutions play a cardinal role in Africa's economic outcomes and well-being. Therefore, governments in Africa must improve on the political factors to enhance economic freedom's impact on quality of life. Moreover, policies that lead to an increase in aid and economic growth will improve the quality of life in Africa.

JEL: C23, I31, P25

Keywords

Economic freedom, quality of life, political institutions, Africa

Introduction

A considerable amount of literature has been devoted to the relationships between economic freedom and economic outcomes, such as growth and quality of life (Haan & Siermann 1998; Sturm et al., 2002; Stroup, 2007; Brkic et al., 2020).

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[AQ1]

Many of these studies have shown that countries with more or increasing economic freedom have better economic outcomes than nations with low economic freedom (Vega-Gordillo & Álvarez-Arce, 2003; Berggren, 2003 Gwartney et al., 2004; Quazi, 2007; Aixala & Fabro, 2008; Cebula, 2013; Perez-Moreno & Angulo-Guerrero, 2016). The various channels through which economic freedom aids economic outcomes such as growth and quality of life have been discussed in the literature (see Haan & Siermann, 1998; Gwartney et al., 2006). In addition, recent empirical works have demonstrated the strong impact of economic freedom on quality of life. These channels include the dismantling of barriers that stifle the entrepreneurial aspirations of the poor (Vargas Llosa, 2008), increased levels of investment and higher productivity of private investment (Gwartney et al., 2006), increased trade, and increased foreign direct investment (Xu, 2018).

Recently, the role of political risk factors on the economic freedom-economic outcomes nexus has attracted the attention of researchers. This perspective is referred as the 'new political economy' (North, 1990; Olson, 1993; Gamble, 1995). Essentially, the new political economy emphasises the role of institutional factors, such as constitutional decisions, political, legal and civil rights, in ensuring good economic outcomes. Friedman (1962) argues that no society with a considerable measure of political freedom does not use something comparable to a free market system to organise a significant portion of its economic activity. He claims that political institutions facilitate poverty reduction directly or indirectly through the promotion of liberal economic reforms. North's (1990) hypothesis of institutions argues that more efficient institutions guarantee more successful economic outcomes and development.

The Hierarchy of Institution Hypothesis posits that political institutions do not have a direct effect on development. Rather, they prepare the ground for the formulation and implementation of sound economic institutions (Acemoglu et al., 2005). This indirect effect may operate either through the impact of political institutions on economic institutions and policies that a country chooses or through economic institutions and policies that impact growth. Economic and political institutions have been established to be correlated. Historical analysis also confirms this correlation. For instance, according to Dabrowski (2018), the transition from a centrally planned economy to a market economy could start only when communist regimes collapsed. Also, countries that did not begin democratisation (i.e., Turkmenistan and Uzbekistan) did not build a market system. Their economies remain largely centrally planned and administratively controlled.

Furthermore, in countries that experienced authoritarian drift, market-oriented economic reforms were either stopped or reversed. These cases were the experience of countries like Slovakia (1994–1998), Belarus after 1996, Russia after 2003, Macedonia, Turkey and Hungary since the 2010s, Ukraine (2010–2014) and Poland after 2015. Beyond the analysed region, the most extreme example is Venezuela under the administration of Hugo Chavez and Nicolas Maduro. Lastly, there are opposite cases when progress in democratisation enabled launching or return to economic reforms: examples of this include Slovakia after 1998, Serbia after 2000, Georgia after 2003 and Ukraine since 2014.

In literature, several empirical studies have examined the role of political risk factors on the impact of economic freedom on economic outcomes, such as economic growth, foreign direct investment and trade (Haan & Siermann, 1998; Nalley & Barkley, 2005; Stroup, 2007). However, only a few existing studies have examined how political institutions aid economic freedom to affect the quality of life. Moreover, most existing studies have focused mainly on developed countries, including some African countries as part of a larger sample. Essentially, the intervening role of political risk factors in the quality of life-economic freedom nexus in the specific context of Africa is under-researched. This is an important gap that needs to be filled in the literature. There is a need to get insight into how political institutions affect the relationship between economic freedom and quality of life in the specific context of Africa. Therefore, do political risk factors play a role in the economic freedom-quality of life relationship in Africa?

It is essential to focus on African countries for a few reasons. First, poverty has continued to increase over the years with a deteriorating effect on the quality of life, despite the various economic policies implemented in the continent. Two, the quality of political institutions such as civil liberties, rule of laws, political rights, among others, are just evolving (nascent) when compared to the developed countries of the world. Hence, focusing the study on African countries will help determine whether the maturity level or state of the political institutions in the continent affects the effectiveness of economic freedom in improving the quality of life of the people.

The article is organised as follows: the second section provides a brief review of the literature. The third section discusses the methodology and data issues. The fourth section discusses the empirical results. Finally, the fifth section concludes the article.

Literature Review

Numerous studies have examined theoretically and empirically how economic freedom can impact economic outcomes, such as growth, foreign direct investment and poverty. Theoretically, several channels through which economic freedom could positively impact these economic outcomes, quality of life inclusive, have been identified in the literature. For example, an increase in economic freedom could help reduce barriers that constrain the entrepreneurial aspirations of the poor (Vargas Llosa, 2008). Also, economic freedom in the form of respect for private property rights, low trade barriers and transparent enforcement of contracts, among others, could help reduce transaction costs and uncertainty, thereby enhancing income and the quality of life. Moreover, economic freedom, which allows free entry and exit into the market and open competition, will improve the efficient allocation of resources (Gwartney et al., 1995). In short, economic freedom is perceived as the foundation for economic success, and by extension, economic well-being (Karabegovic & McMahon, 2005).

Empirically, several studies have investigated the relationship between economic freedom and economic outcomes and the well-being of the people (Islam, 1996; Hasan et al., 2003; Kaur, 2007; Stroup, 2007; Gwartney & Connors, 2010;

Perez-Moreno & Angulo-Guerrero, 2016; Ahmad, 2017). Some studies have found that economic freedom reduces poverty and thus enhances the quality of life (Grubel, 1997; Connors, 2011; 2013; Belasen & Hafer, 2012; Nikolaev, 2014; Labrie & Doucet, 2015). For example, the study by Esposito and Zaleski (1999) finds that increased economic freedom has a significant positive effect on the quality of life, measured as longer life expectancy and higher literacy rate. In the same way, Ovaska and Takashima (2006) find positive correlation between economic freedom and improved health, thus well-being.

However, few other studies have argued that the extent to which economic freedom will affect the quality of life depends on political institutions, i. e., the political risk factors. The argument is that societies with sound and robust political institutions in the form of high political rights, civil liberties and minimal conflicts are better able to create public policies that achieve higher levels of economic growth and prosperity. Indeed, some empirical studies have found support for the claim in the literature (Arat, 1988; Przeworski & Limongi, 1993; Goldsmith, 1995; Lake & Baum, 2001; Bueno de Mesquita et al., 2003; Mulligan et al., 2004; Acemoglu & Robinson, 2006; Knutsen, 2011; Okunlola, 2019). For example, Stroup (2007) finds that economic freedom helps explain economic well-being conditioned on the country's level of democracy. In like manner, Inglehart et al. (2008) find that happiness and improvements in economic choice are positively correlated, particularly in countries with high levels of economic security.

Overall, not many papers have examined the role of political risk factors on the economic freedom-quality of life nexus. This observation is particularly obvious in the case of African countries. Therefore, our article attempts to fill this gap by exploring whether the ability of economic freedom to influence a country's quality of life is conditional on the state of the political risk factors.

Hypothesis

As noted in the preceding section, few papers have examined the role of political risk factors on the economic freedom-quality of life nexus. For example, the Hierarchy of Institution Hypothesis hypothesises that a political institution prepares the ground for the formulation and implementation of economic institutions. However few others, including Friedman (2002) and Bhagwati (2007) associated political institutions with economic freedom in the growth model. Likewise, Feng (1997) argued that political institutions, working indirectly through its impact on political stability, would likely affect growth.

[AQ2]

Political risk factors, by creating competitive market forces conditions that are conducive to growth, allow active but voluntary citizens' participation. Thus, political risk factors make individuals/economic agents appropriate the economic freedom inherent in a market economy, thus impacting positively on growth. Many other empirical works have demonstrated the moderating role that political risk factors played in the economic freedom and economic development relationships (Farr et al., 1998; Vega-Gordillo & Álvarez-Arce, 2003; Stroup, 2007; Aixala & Fabro, 2008; Peev & Mueller, 2012; Piątek et al., 2013). These studies,

[AQ3]

however, have different views regarding the role of political risk factors in the economic freedom-development relationship. Resulting from these varying perspectives and given the measures of political risk factors (i.e., political rights, civil liberties and conflict), we hypothesised that:

Hypothesis I: Civil liberties positively moderate the nexus between economic freedom and quality of life.

Here, it is hypothesised that civil liberties and economic freedom are complements, meaning that they support each other in enhancing quality of life. Indeed, several existing studies have lend credence to this claim. For instance, Chauffour (2011) found empirical evidence that supports the finding that civil liberties and economic freedom explain the large differences in economic outcomes among countries. Similarly, in related work, Aixala and Fabro (2008) found that economic freedom is enhanced by civil liberties, thus economic growth and quality of life. Mardanov (2020) demonstrated the significant impact of economic freedom on quality of life under the influence of civil liberties. In the same way, Thompson (2004), Xu and Li (2008), Fabro and Aixala (2014) found that civil liberties plays a significant moderating role in the relationship between economic freedom and economic outcomes.

The civil liberties ratings range from 1 to 7. The score 1 implies 'most free'. while 7 represents 'least free' (Abramowitz, 2018). A unit decrease in the civil liberties index implies improved civil liberties, and a unit increase means worsening civil liberties. Our a priori expectation is that the coefficient of the interactive term of civil liberties and economic freedom (EFW∗CL/(β_2)) to be negative. This interactive term is referred to as a buffering interaction (Cohen et al., 2003). The buffering interaction suggests that a more excellent value of the moderator—in this case, civil liberties—reduces the impact of the independent variable (i.e., economic freedom) on the dependent variable (i.e., quality of life) (Cartwright et al., 2018). The implication is that a positive change in civil liberties (i.e., a reduction in civil liberties index value) will boost the impact of economic freedom on human development. This simply means that civil liberties positively moderate the effect of economic freedom on human development.

Hypothesis II: That political rights positively moderate the nexus between economic freedom and quality of life.

We hypothesise that political rights and economic freedom are complementary, which means that they strengthen each other in enhancing quality of life. Some studies have demonstrated the influence of political freedom on economic freedom in promoting economic outcomes (Vega-Gordillo & Alvarez-Arce, 2003; Stroup, 2007; Aixala & Fabro, 2008). As an illustration, Vega-Gordillo and Alvarez-Arce (2003) noted that economic and political freedom are required to achieve fast and stable economic growth. This suggests that expanding the scope of both economic and political freedom will result in a synergy effect that works like a virtuous circle. Similarly, Stroup (2007) argued that the level of economic

freedom in society has a positive effect on human well-being, regardless of the strength of democracy. This is because it allows the expression of individual political rights over public policy in society.

The political rights ratings range from 1 to 7. The score of 1 denotes 'most free', while 7 signifies 'least free' (Abramowitz, 2018). A unit decrease in the political right index indicates improved political rights, and a unit increase suggests worsening political rights. We expect the coefficient of the interactive variable, that is, economic freedom and political rights (EFW*PR/(β_2)) to be negative. The negative buffering interaction means that a higher value of the moderator—in this case, political rights—reduces the impact of the independent variable (i.e., economic freedom) on the dependent variable (i.e., quality of life) (Cartwright et al., 2018). The implication is that an improvement in political rights (i.e., a reduction in political rights value) will enhance the effect of economic freedom on human development. In other words, the effect of economic freedom on economic development is positively moderated by political rights.

Hypothesis III: Conflict negatively moderates the nexus between economic freedom and quality of life.

Lastly, we hypothesise that civil liberties and economic freedom have buffering interaction, in which, an increase in one adversely affects the effect of the other on human development. Studies of Tures (2002), Osborne (2010) and Djidrov et al. (2013), among others, have shown that economic freedom and conflict are closely related. Osborne (2010), for instance, showed that government's restrictions on commercial activities engender conflicts with adverse effect on trust. In the same way, Tures (2003) and Djidrov et al. (2013) showed that economic freedom and conflicts are closely related. The consensus in the literature is that global market forces promote the nonviolent resolution of conflicts. Indeed, society has come to realise that the economic benefits of cooperation far outweigh the costs of any form of conflict, especially war (Klare, 2001).

Data series on conflicts is obtained from the Major Episodes of Political Violence (MEPV) magnitude scores, Centre for Systemic Peace (CSP). The scores for conflicts range from scale (1) to (10). The score of zero (0) indicates no episode of conflicts, while ten (10) represents the highest episode of conflicts (Marshall, 2016). Thus, a decrease in conflict scale denotes a decrease in conflict episode, while an increase in conflict scale indicates an increase in conflict episode. Our a priori expectation is that the interaction term, that is, economic freedom and conflict (EFW*CONF/(β_2)) will be negative, referring to a buffering interaction. This buffering interaction implies that a higher value of the moderator—in this case, conflict—reduces the impact of the independent variable (i.e., economic freedom) on the dependent variable, namely human development. What this suggests is that an increase in the value of the conflict scale (i.e., increase in conflict episode) will decrease the impact of economic freedom on human development. In this case, an increased conflict episode negatively moderates the effect of economic freedom on human development.

Methodology

Model Specification

We estimate the relationship between quality of life and economic freedom using a panel data set over 1985 and 2016. The model specification is as given in Equation 1. Next, we introduce an interaction term to help test economic freedom's impact conditional on political risk factors.

$$\begin{aligned} \mathrm{Qul}_{it} = {} & \beta_0 + \beta_1 \mathrm{Efw}_{it} + \beta_2 \mathrm{IQ}_{it} + \beta_3 \left(\mathrm{Efw}_{it} * \mathrm{IQ}_{it}\right) + \beta_4 \mathrm{Gdpg}_{it} + \\ & \beta_5 \mathrm{Popg}_{it} + \beta_6 \mathrm{Faid}_{it} + u_{it} \end{aligned} \tag{1}$$

where Qul_{it} represents the quality of life index for country i in periods t, representing various measures of life used in the literature. Among these measures are: GDP per capita (GDPPC), life expectancy (LEXP), final household consumption expenditure per capita (LNCOMPC), and literacy rate (SCHENROL). We compute a composite quality of life index using Principal Component Analysis (PCA)[1] for all four measures. The quality of life index is represented as (CQUL). Efw_{it} is the economic freedom index, which measures the level of economic freedom experienced by country i in periods t. IQ_{it} is the quality of political risk factors, which is proxied by Cl_{it}—the level of civil liberty; Pr_{it}—the level of political rights experience in a country, and Confl_{it}—the incidence of conflict. Gdpg_{it}, Popg_{it}, and Faid_{it} represent growth rate, population and foreign aid, respectively, which are other factors determining the quality of life, and the white noise error term is u_{it}. Also, $(\mathrm{Efw}_{it} * \mathrm{IQ}_{it})$ is the interactive variable between each measure of political risk factors and economic freedom index.

The expectation is that the coefficient of economic freedom (β_1) will be positive. The essential explanations for this are that increased economic freedom reduces the barriers that exist in less economically free countries, thereby unleashing the entrepreneurial spirit of the poor. Moreover, according to Friedman (1962) and Hayek (1944), economic freedom by enhancing the effectiveness of the market in ensuring efficient resource allocation will lead to greater prosperity. Individuals in such societies can better exploit a more excellent selection of edifying consumers' choices to live longer, healthier lives. Besides, they can attain higher levels of human capital to empower them to exploit a more significant set of potentially profitable productive activities (Stroup, 2007). All the same, some empirical works have found that economic freedom could be detrimental to growth or economic performance.

The expected sign of political risk factors estimates (β_2) vary; political rights, civil liberties and conflict incidence are expected to have positive signs, while conflict is expected to be negative. Generally, countries that enjoy higher civil liberties and property rights have freer environments, and thus well-being. However, the level of conflict is expected to impact productive activities positively, and thus the quality of life. The sign of interaction term (β_3) estimate is expected to vary depending on the variables being interacted. An estimate of β_4 is expected to be positive

since the economy's growth will take more people out of poverty with an expected positive effect on the quality of life. Economic growth implies more jobs and more money for people to spend[2]. The coefficient of population growth β_5 can be positive or negative. Population growth can negatively impact the quality of life if it causes the available means and resources to become scarce. However, if an increase in population leads to higher production, increased consumption and increased tax revenue, it could enhance the quality of life. The coefficient of foreign aid is indeterminate. When foreign aid is effectively utilised, it could positively influence economic transformation, thereby promoting a better quality of life. In contrast, by providing an alternative source of revenue, foreign aid could serve as a disincentive to the government in creating efficient economic institutions with a possible adverse effect on income and the quality of life.

Estimation Techniques

The study conducted descriptive statistics for all the variables used in this study. Most of the variables used are in index form except life expectancy, household consumption per capita, GDP per capita, population growth and secondary school enrolment. However, household consumption per capita and GDP per capita are converted to their log forms. In addition, we conducted the stationarity for this study to test the appropriateness of the methodology of a dynamic panel (Chang et al., 2011; Chen et al., 2014). It is argued that the problem of non-stationarity of variables that is more prevalent in time-series is also pronounced in panel analysis. This condition occurs when the number of cross-sectional units (N) is higher than time-series observation (Holtz-Eakin et al., 1988; Arelano, 2003; Buck et al., 2008). For instance, the first difference Generalised Method of Moments (GMM) only takes care of variables integrated into order one [I(1)].

The quality of life index (CQUL) was computed from data of Life Expectancy (LEXP), School enrolment (SCHENROL), Consumption per capita (COMPC) and GDP Per capita (GDPPC) using the Principal Component Analysis (PCA). Before the PCA, we checked the factorability of variables using Barlett's test for sphericity and the Kaiser–Meyer–Olkin (KMO) coefficient test. Barlett's test converts the calculated determinants of the matrix to a C^2 statistic, which is tested for significance. The null hypothesis of the test is that variables are collinear. The KMO test, on the other hand, entails the comparison of the size of the variables' correlation coefficients with the size of the partial correlation coefficients. In the KMO test, a minimum value of 60.0 is necessary for an acceptable PCA. The results from Barlett's and KMO tests and the PCA for 44 countries show that the four variables can be merged into one set of factors using the PCA. Thus the values of the first PCA for each country are utilised in determining the weights of quality of life index[3].

The study employs the System Generalised Method of Moments (Sys-GMM) and Difference Generalised Method of Moments (Diff-GMM) based on the weaknesses associated with using the fixed and random effects estimation approaches[4]. The GMM approach addresses the possible endogeneity issues with the various

variables in the model. In the dynamic panel regressions, the lagged values are used as instruments. The introduction of lagged quality of life is vital as the previous year's quality of life is likely to influence the current level in a country. The study tests the instrument validity by using the Sargan test of over-identifying restrictions. In addition, the study ascertains whether deeper lags of the instrumented variables are correlated with deeper lags of the disturbances. The Arellano and Bond (1991) AR (1) and AR (2) tests are for the first and second-order serial autocorrelation.

Data Sources and Measurement

We adopt annual data from 1985 to 2016. The GDP per capita series is obtained by dividing gross domestic product (GDP) by the midyear population. The real GDP per capita is used to measure the amount of resources required for an appropriate economic livelihood (Masud & Yontcheva, 2005; Chirino & Melian, 2006; Olofin, 2013). We also used life expectancy, which shows the number of years a new born child stays alive assuming thea the prevailing mortality patterns at the time of its birth were to stay the same during its life. The household final consumption expenditure per capita is the market value of all goods and services purchased by households. This comprises all durable goods (such as cars, washing machines and home computers) that the households purchased in a given year. Essentially, the consumption per capita is used to measure access to resources required for a good standard of living (Masud & Yontcheva, 2005; Chirino & Melian, 2006). Lastly, we use students' enrolment in secondary school to measure the rate of literacy. This is total enrollment in secondary education, regardless of age, as a percentage of the official secondary education age population. The article used 44 African countries based on data availability, and the list is presented in Table A in the appendix.

Other variables include economic growth rate (GDP growth rate). This variable is the gross value added by all local producers in the economy, adding any product taxes and subtracting any subsidies not built-in in the value of the products. The population growth is the exponential growth rate of the midyear population from year $t-1$ to t, expressed as a percentage. Foreign aid is measured as total government aid earmarked to support economic development and welfare in the developing countries. All these data are obtained from the World Bank, World Development Indicators (WDI).

The economic freedom index data has ten components. These are: fiscal freedom, property rights, investment freedom, government spending, business freedom, freedom from corruption, trade freedom, labour freedom, financial freedom and monetary freedom. (Miller et al., 2012). The data is obtained from Fraser Institute's Economic Freedom of the World (EFW) Report. The political rights index is computed from four subdivisions, namely political pluralism, political participation, electoral process and functioning of government. The civil liberties index is generated from four subcategories: associational and organisational rights, freedom of expression and belief, personal autonomy and individual rights,

and the rule of law. The data on political rights and civil liberties are obtained from Freedom in the World Country Ratings of Freedom House.

Similarly, the data on conflict incidence used in the study is the countries' interstate, societal and communal warfare magnitude scores. The data is obtained from the Major Episodes of Political Violence (MEPV) magnitude scores as published by the Centre for Systemic Peace (CSP). The article uses 44 African countries based on data availability, and the list is presented in the appendix. The descriptive statistics of the series used in the study are presented in Table 1. The mean economic freedom is 5.83, while the average score for civil liberties is 4.43. The average scores for property rights and conflict are 4.64 and 0.69.

Empirical Results

This section reports and discusses the empirical results in the following order. First, we present the results of the panel unit root test and co-integration tests. Then, we check for the direct impact of economic freedom on the quality of life. Finally, we test the main issue: how economic freedom's impact on the quality of life is affected by political risk factors. The results of the panel unit root tests are presented in Table 2. As shown in Table 2, the majority of the series is stationary [AQ5] at the level. For instance, civil liberties, political rights, economic freedom and all

Table 1. Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max	Obs
EFW	5.83	0.94	2.74	8.15	740
PR	4.64	1.79	1.00	7.00	1404
CL	4.43	1.41	1.00	7.00	1,404
CONFL	0.68	1.55	0.00	10.00	1,371
CQUL	0.00	0.98	−2.19	2.72	689
FAID	19.73	1.20	15.13	23.15	1,393
LEXP	56.13	8.62	27.61	76.08	1,408
SCHENROL	38.10	25.42	3.41	115.99	901
GDPG	3.83	6.36	−62.08	123.14	1,371
GDPPC	6.99	1.05	4.88	9.52	1,375
LNCOMPC	6.60	0.83	4.68	8.83	1,026
EFW*PR	24.63	9.74	5.90	50.54	740
EFW*CL	23.31	7.18	6.38	45.36	740
EFW*CONFL	2.62	6.54	0.00	34.68	740
POPG	2.48	1.06	−6.18	7.92	1,408

[AQ4] **Source:**

Notes: EFW—Economic freedom index; PR—Property rights; CL—Civil liberties; CONFL—Conflicts; CQUL—Composite quality of life index generated using PCA; FAID—Foreign aid; LEXP—Life expectancy; SCHENROL—School enrolment; GDPG—GDP growth rate; GDPPC—GDP per capita; LNCOMPC—Final household consumption expenditure per capita; EFW*PR—Interaction created from foreign aid multiplied by property rights; EFW*CL—Interaction created from economic freedom multiplied by civil liberties; EFW*CONFL—Interaction created from economic freedom multiplied by conflicts; and POPG—Population growth.

Table 2. Panel Unit Root Test Results

	Levin et al.		Breitung		Im et al.		ADF		PP		
Variables	Levels	1st Diff	Levels	1st Diff	Levels	1st Diff	Levels	1st Diff	Levels	1st Diff	rmk
CEFW	0.01	−11.29***	−6.96***		−11.29***		252.48***		636.86***		I(0)
CL	−5.99***		−2.35***		−4.76***		148.42***		158.67***		I(0)
COMPC	9.85	−22.39***	8.36	−10.74***	1.25	−15.28***	75.03	584.5***	79.8	1971.61***	I(1)
CONFL	−4.59***		−4.78***		−3.58***		104.51***		119.14***		I(0)
EFW	−6.52***		−1.45*		−1.85**		105.45**		162.21***		I(0)
EFW*CL	−3.98***		−0.35	−5.18***	−1.21	−7.28***	93.07*		126.96***		I(0)
EFW*CONFL	−6.23***		0.005	−8.05***	−1.71**		90.40*		120.48***		I(0)
EFW*PR	−5.43***		−0.35	−5.18***	−1.21	−7.29***	93.07*		126.96***		I(0)
GDPPC	−0.37	−20.33**	9.37	−11.44***	4.33	−22.06***	57.57	595.67***	69.37	899.36***	I(1)
GDPG	−8.67***		−7.57***		−11.57***		295.30***		658.12***		I(0)
LEXP	−3.54***		20.81	12.87*	5.39	8.62*	126.09***		64.22	310.59***	I(1)
LNFAID	−5.36***		−4.41***		−5.34***		166.63***		185.40***		I(0)
POPG	5.12	6.51*	11.82	4.24*	8.07	3.36*	46.49	128.40***	63.57	352.32***	I(1)
CQUL	−25.38***		0.869	0.52*	−10.34***		425.14***		71.96	245.85***	I(0)
PR	−2.72***		−2.86***		−1.8E+14***		350.86***		346.03***		I(0)
SCHENROL	−3505.86***		4.0E-10	−5.8E-15*	5.28	−4.39***	43.37	226.05***	77.92	267.47***	I(1)

Source:

Notes: *,**, ***indicates level of significance at 10%, 5% and 1% respectively. Panel unit root with intercept and trend.

the interactive variables of economic freedom and political risk factors are of order I(0), that is, and stationary at a level.

In contrast, household consumption, corruption, GDP per capita, life expectancy, population growth and secondary school enrollment are of order I(1), that is, stationary at first difference.

Baseline Results

This section presents the baseline specification tests for the direct impact of economic freedom on the quality of life. The results are presented in Tables 3 and 4[5]. We find that the coefficient of economic freedom is positive and significant in all the equations. The only exception is in the difference GMM for COMPC in Table 3. This result provides support for the finding that economic-freedom positively impacted the quality of life in Africa. In terms of the control variables, political rights and civil liberty deteriorate the quality of life across all the five models. This finding suggests that a low level of political rights and civil liberties tends to lower life quality. Foreign aid and GDP per capita have a strong positive impact on the quality of life. The sign of population growth changes depending on the measure of the quality of life. When the study uses the quality of life composite index, the population growth reduces the quality of life in the estimation with difference GMM. At the same time, it enhances the quality of life in the system GMM estimation. Sargan test *p*-values for the GMMs show that the null hypothesis cannot be rejected, indicating that the exclusion restrictions for the instruments are met.

Results for Interactive Models

Next, we examine the results for economic freedom's impact conditional on political risk factors (Tables 5–7). First, we explore economic freedom's impact conditional on political rights (Table 5). The coefficient of the interaction term, EFC*PR, is negative and significant in all the specifications. The results for control variables are similar to those obtained in Tables 3 and 4.

The negative coefficient of EFC*PR points to the existence of 'buffering interaction' in the language of Cohen et al. (2003). A significant and negative interaction term suggests a buffering interaction, where a greater value of the moderator reduces the impact of the independent variable on the dependent variable (Cartwright et al., 2018). This trend implies that lower political rights diminish the economic freedom's effect on the quality of life.

Economic Interpretation of Marginal Effects

To calculate economic significance, we estimate the marginal impacts[6]. The study investigates the conditional marginal effects using two different cases: (a) the impact of economic freedom on the composite quality of life index when there are political rights (case a), and (b) the impact of political rights on the composite quality of life index in the presence of economic freedom (case b).

Table 3. The Effect of Economic Freedom and Political Rights on Quality of Life in Africa (1985–2016)

	MODEL I (CQUL)		MODEL II (GDPPC)		MODEL III (COMPC)		MODEL IV (LEXP)		MODEL V (SCHENROL)	
Vrb	D-GMM	S-GMM	D-GMM	S-GMM	D-GMM	S-GMM	D-GMM	S-GMM	D-GMM	S-GMM
Lag of Dep	0.880***	0.908*	0.932***	0.997***	0.793***	0.982***	0.972***	0.966***	0.888***	0.993***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
C		−0.446***		−0.077***		0.246***		0.430		3.032
		(0.000)		(0.000)		(0.000)		(0.408)		(0.173)
EFW	0.169***	0.056***	0.004***	0.002***	−0.025***	0.006***	0.070**	0.272***	1.811***	0.271***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.004)	(0.000)	(0.010)	(0.000)	(0.000)	(0.000)
PR	−0.059**	−0.026***	−0.005***	−0.002***	−0.026***	−0.006***	−0.042***	0.025	−0.032	0.169***
	(0.027)	(0.001)	(0.000)	(0.088)	(0.000)	(0.000)	(0.000)	(0.109)	(0.897)	(0.001)
GDPG	0.029***	0.035***			−0.002***	0.006***	0.024***	0.025***	0.025*	0.050***
	(0.000)	(0.000)			(0.001)	(0.000)	(0.000)	(0.000)	(0.074)	(0.000)
FAID	0.031***	0.004***	0.020***	0.005*	0.104***	−0.007***	0.416***	0.049**	−0.684***	−0.199
	(0.000)	(0.000)	(0.000)	(0.088)	(0.000)	(0.000)	(0.000)	(0.024)	(0.008)	(0.114)
POPG	−0.077*	0.065	0.025***	0.0004	0.076***	−0.002***	−0.102***	−0.303***	1.015**	0.062
	(0.093)	(0.007)	(0.000)	(0.355)	(0.000)	(0.002)	(0.000)	(0.000)	(0.024)	(0.680)
AR(1)	−1.99**	−1.98**	−2.62***	−2.59**	−2.70***	−2.47**	−2.01**	0.45	−2.32**	−2.32**
	(0.046)	(0.048)	(0.009)	(0.010)	(0.007)	(0.014)	(0.045)	(0.651)	(0.020)	(0.020)
AR(2)	1.63	1.64	−0.85	−0.83	1.24	1.84	−0.73	1.17	0.38	0.37
	(0.104)	(0.102)	(0.397)	(0.40)	(0.215)	−0.166	(0.467)	(0.243)	(0.701)	(0.711)
Sargan Test	217.82	232.04	182.52	214.33	32.87	177.5	432.14	25.2	311.19	359.57
	(0.241)	(0.308)	(0.922)	(0.733)	(0.663)\	(0.994)	(0.507)	395	(0.156)	(0.365)
Obs	262	345	599	708	511	597	599	708	293	390

Source:

Notes: *** ** *** indicates level of significance at 10%, 5% and 1% respectively. The value in parenthesis is the probability value of each coefficient.

Table 4. The Effect of Economic Freedom and Civil Liberties on Quality of Life in Africa (1985–2016)

	MODEL I (CQUL)		MODEL II (GDPPC)		MODEL III (COMPC)		MODEL IV (LEXP)		MODEL V (SCHENROL)	
Vrb	D-GMM	S-GMM	D-GMM	S-GMM	D-GMM	S-GMM	D-GMM	S-GMM	D-GMM	S-GMM
Lag of Dep	0.904***	0.908***	0.896***	0.997***	0.872***	0.991***	0.979***	0.988***	0.910***	0.972***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
C		−0.458***		−0.067***		0.183***		−0.899***		6.128***
		(0.000)		(0.000)		(0.000)		(0.000)		(0.000)
EFW	0.147***	0.056***	0.030***	0.001***	0.034***	0.007***	0.021***	0.135***	1.594***	0.140***
	(0.009)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
CL	−0.049	−0.038***	−0.016***	−0.004***	−0.003***	−0.001***	−0.061***	0.030***	−0.918**	−0.150**
	(0.280)	(0.000)	(0.002)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.017)	(0.020)
GDPG	0.027***	0.035***			0.005***	0.007***	0.005***	0.017***	−0.016	0.032
	(0.000)	(0.000)			(0.000)	(0.000)	(0.000)	(0.000)	(0.213)	(0.000)
FAID	0.042	0.006***	0.015***	0.006***	0.002***	−0.008***	0.138***	0.048***	−0.692***	−0.193***
	(0.437)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
POPG	−0.077	0.072***	0.015	0.001	−0.008***	−0.004***	0.255***	0.070***	0.890**	−0.012
	(0.175)	(0.001)	(0.196)	(0.338)	(0.000)	(0.000)	(0.000)	(0.000)	(0.043)	(0.953)
AR(1)	1.99**	−1.97**	−2.70***	−2.60*	−2.50**	−2.45**	2.92***	1.89*	−2.32**	−2.33
	(0.046)	(0.048)	(0.007)	(0.009)	(0.013)	(0.014)	(0.004)	(0.059)	(0.020)	(0.020)
AR(2)	1.63	1.62	−1.02	−0.85	1.84	1.85	1.52	1.41	0.36	0.37
	(0.104)	(0.105)	(0.306)	(0.397)	(0.166)	(0.164)	(0.128)	(0.157)	(0.718)	(0.713)
Sargan test	231.91	231.52	290.56	213.7	284.47	198.42	2987.24	9100.18	308.4	242.76
	(0.858)	(0.317)	(0.626)	(0.743)	(0.806)	(0.985)	(0.111)	(0.116)	(0.184)	(0.54)
Obs	262	345	599	708	511	597	599	708	293	390

Source:

Notes: *,**, *** indicates level of significance at 10%, 5% and 1% respectively. The value in parenthesis is the probability value of each coefficient.

Table 5. The Interactive Effect of Economic Freedom and Political Rights on Quality of Life in Africa (1985–2016)

	MODEL I (CQUL)		MODEL II (GDPPC)		MODEL III (COMPC)		MODEL IV (LEXP)		MODEL V (SCHENROL)	
Vrb	D-GMM	S-GMM	D-GMM	S-GMM	D-GMM	S-GMM	D-GMM	S-GMM	D-GMM	S-GMM
Lag of Dep	0.864***	0.964***	0.911***	0.992***	0.903***	1.006***	0.935***	0.985***	0.878***	0.961***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
C		−1.640**		−0.029*		−0.032		−1.736***		−3.313
		(0.011)		(0.098)		(0.282)		(0.006)		(0.702)
EFW	0.223*	0.274***	0.064***	0.032**	0.084***	0.001*	0.859***	0.260***	6.185***	1.715***
	(0.069)	(0.000)	(0.000)	(0.026)	(0.000)	(0.055)	(0.000)	(0.001)	(0.003)	(0.009)
PR	−0.388**	−0.373***	−0.067***	−0.045***	.−0.046**	−0.007***	−0.831***	0.226**	−7.472***	−1.665***
	(0.044)	(0.000)	(0.000)	(0.039)	(0.035)	(0.000)	(0.000)	(0.044)	(0.009)	(0.002)
EFW*PR	−0.087***	−0.071***	−0.013***	−0.008**	−0.008*	0.0004***	−0.141***	−0.032*	−1.410***	−0.295***
	(0.003)	(0.000)	(0.000)	(0.028)	(0.055)	(0.000)	(0.000)	(0.074)	(0.002)	(0.000)
GDPG	0.039***	0.026***			0.001***	0.006***	0.019***	0.018***	−0.029	0.019*
	(0.000)	(0.000)			(0.000)	(0.000)	(0.000)	(0.000)	(0.391)	(0.089)
FAID	0.299***	−0.009	0.026**	0.009**	0.029***	0.001***	0.740***	0.057***	−0.049	−0.205
	(0.000)	(0.663)	(0.000)	(0.015)	(0.000)	(0.000)	(0.000)	(0.004)	(0.952)	(0.591)
POPG	0.111	0.171***	−0.002	−0.007	0.031**	−0.007***	0.216**	0.058	5.586***	0.125
	(0.135)	(0.000)	(0.559)	(0.000)	(0.025)	(0.000)	(0.023)	−0.121	(0.000)	(0.767)
AR(1)	−1.35*	−2.01**	−2.70**	−1.48***	−2.58**	−2.47**	−2.50**	1.48*	−2.08**	−2.37**
	(0.050)	(0.045)	(0.007)	(0.000)	(0.010)	(0.013)	(0.012)	(0.080)	(0.038)	(0.018)
AR(2)	1.50	1.66	−0.74	0.91	1.76	1.82	−1.53	1.36	0.4	0.35
	(0.133)	(0.100)	(0.163)	(0.139)	(0.179)	(0.168)	(0.126)	(0.174)	(0.688)	(0.725)
Sargan test	23.46	94.15	210.01	219.12	30.86	422.77	38.69	104.02	55.74	85.78
	(0.493)	−0.169	(0.177)	(0.361)	(0.788)	(0.988)	(0.438)	(0.999)	(0.268)	(0.366)
Obs	262	345	599	708	511	597	599	708	293	390

Source:

Notes: *, **, *** indicates level of significance at 10%, 5% and 1% respectively. The value in parenthesis is the probability value of each coefficient.

Case i: Economic Freedom in the Presence of Political Rights

Using the system GMM results, the conditional marginal impact of economic freedom on the composite quality of life when there are political rights is presented as $\frac{d\Delta CQUL_{it}}{dEFW_{it}} = \underset{(0.000)}{0.274} - \left[\underset{(0.000)}{0.071} * PR_{it}\right]$[7]. Then, for a realistic value political rights, we estimate the statistical significance of the impact. Hence, when the political rights index reaches its mean (i.e., political right index = 0), the marginal effect of economic freedom is 0.274. The negative sign of the interactive term suggests a buffering interaction, where a higher value of the political rights index reduces the impact of economic freedom on the quality of life. Therefore, it can be concluded that improved political rights will complement economic freedom to boost its impact on the quality of life. This result is consistent with the findings of Stroup (2007), Aixala and Fabro (2008), Peev and Mueller (2012) and Piątek et al. (2013). These authors found that economic freedom is reinforced by political rights to boost economic outcomes and quality of life.

Case ii: Political Rights in the Presence of Economic Freedom

The conditional marginal effect of political rights on the quality of life when there is economic freedom from the system GMM results in Table 5 is given by $\frac{d\Delta CQUL_{it}}{dPR_{it}} = \underset{(0.000)}{-0.373} - \left[\underset{(0.000)}{0071} * EFW_{it}\right]$. Therefore, the statistical significance of this impact for realistic values of economic freedom is being estimated. On the attainment of the mean value of the economic freedom index (i.e., economic freedom index = 0), the marginal effect of political rights is −0.373. With the negative sign of the interactive term, showing a buffering interaction, it can be concluded that economic freedom does not enhance the impact of political rights on the composite quality of life index.

Interactive Effect of Civil Liberties and Economic Freedom on Quality of Life

Next, we examine the second channel, civil liberties. Improved civil liberties can enhance the quality of life, while a low level of civil liberties can deter the quality of life. Hence, we explore economic freedom's impact on the quality of life conditional on civil liberties. The results are shown in Table 6. The coefficient of the interactive term, EFW∗CL, is negative and significant in all the specifications. This result is similar in all respect to that obtained with political rights. A low level of civil liberties reduces the positive impact of economic freedom on the quality of life. This result suggests that improved civil liberties will complement economic freedom to enhance the quality of life. The results of the remaining control variables follow the same pattern as in Table 4. We explore the conditional marginal effects in two cases: (a) the impact of economic freedom on composite quality of life index in the presence of civil liberties (case a), and (b) the impact of civil liberties on the composite quality of life in the presence of economic freedom (case b).

Table 6. The Interaction Effect of Economic Freedom and Civil Liberties on Quality of Life in Africa (1985–2016)

	MODEL I (CQUL)		MODEL II (GDPPC)		MODEL III (COMPC)		MODEL IV (LEXP)		MODEL V (SCHENROL)	
Vrb	D-GMM	S-GMM	D-GMM	S-GMM	D-GMM	S-GMM	D-GMM	S-GMM	D-GMM	S-GMM
Lag of Dep	0.850***	0.859***	0.909***	0.990***	0.882***	0.989***	0.946***	0.990***	0.867***	0.983***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
C		−1.964**		−0.209***		−0.675***		−3.016***		−1.259
		(0.024)		(0.000)		(0.002)		(0.000)		(0.453)
EFW	1.897***	0.210**	0.049**	0.007	0.037***	0.067**	1.076***	0.423***	7.364***	1.293***
	(0.000)	(0.000)	(0.010)	(0.283)	(0.000)	(0.034)	(0.000)	(0.000)	(0.000)	(0.003)
CL	−2.418***	−0.317***	−0.049***	−0.018*	−0.023***	−0.131***	−1.562***	−0.434***	−6.443***	−1.562***
	(0.000)	(0.009)	(0.000)	(0.054)	(0.000)	(0.009)	(0.000)	(0.000)	(0.002)	(0.004)
EFW*CL	−0.362***	−0.049**	−0.009*	−0.004***	−0.005***	−0.020***	−0.238***	−0.067***	−1.221***	−0.309***
	(0.000)	(0.011)	(0.060)	(0.014)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.002)
GDPG	0.040***	0.025***			0.005***	0.007***	0.013*	0.017***	0.050*	0.033***
	(0.000)	(0.000)			(0.000)	(0.000)	(0.053)	(0.000)	(0.053)	(0.000)
FAID	0.183**	0.011	0.026***	−0.015***	0.015***	0.018***	0.334***	0.052***	−0.700*	−0.154*
	(0.046)	(0.769)	(0.000)	(0.000)	(0.000)	(0.002)	(0.000)	(0.000)	(0.070)	(0.054
POPG	−0.317**	0.187***	−0.015*	−0.007**	−0.010***	−0.029	0.194	0.127***	1.479***	−0.174
	(0.013)	(0.001)	(0.060)	(0.048)	(0.000)	(0.292)	(0.522)	(0.000)	(0.005)	(0.157)
AR(1)	−1.92*	−1.97**	−2.70***	−2.60***	−2.49**	−2.44**	−0.86	1.66*	−2.37**	−2.32**
	(0.055)	(0.049)	(0.007)	(0.009)	(0.013)	(0.015)	(0.386)	(0.097)	(0.018)	(0.020)
AR(2)	1.49	1.66	−0.89	−0.75	1.80	1.79	−0.11	1.29	0.45	0.37
	(0.135)	(0.100)	(0.374)	(0.454)	(0.171)	(0.174)	(0.909)	(0.195)	(0.651)	(0.711)
Sargan test	14.5	43.57	109.25	86.80	432.7	86.82	14.07	8982.18	181.70	133.86
	(0.883)	−0.533	(0.529)	(0.366)	(0.990)	(0.901)	(0.594)	(0.235)	(0.329)	(0.607)
Obs	262	345	599	708	511	597	599	708	293	390

Source:

Notes: **, *** indicates level of significance at 10%, 5% and 1% respectively. The value in parenthesis is the probability value of each coefficient.

Case i: Economic Freedom in the Presence of Civil Liberties

Using the system GMM results, the conditional marginal impact of economic freedom when there are civil liberties is given by $\frac{d\Delta CQUL_{it}}{dEFW_{it}} = \underset{(0.000)}{0.210} - \left[\underset{(0.000)}{0.049} * Cl_{it}\right]$ and $\frac{d\Delta lnCOMPC_{it}}{dEFW_{it}} = \underset{(0.000)}{0.067} - \left[\underset{(0.000)}{0.020} * CL_{it}\right]$, for the models representing the quality of life and consumption per capita (COMPC). At this point, the statistical significance of this effect is being calculated for a reasonable level of civil liberties. Consequently, when the index of civil liberties is at its mean value (i.e., civil liberties index = 0), the marginal effect of the index of economic freedom is 0.210 for the composite quality of life and 0.067 for the final household consumption per capita model. Thus, although the negative sign of the interactive term indicates a buffering interaction, a higher value of index of the civil liberties (i.e., worsening civil liberties) reduces the impact of economic freedom on the composite and other indices of the quality of life. This result, however, implies that more civil liberties will complement and enhance the outcome of the index of economic freedom on the quality of life in Africa. This result is consistent with the earlier findings by Thompson (2004), Xu and Li (2008), Aixala and Fabro (2008), Chauffour (2011), Fabro and Aixala (2014), and Mardanov (2020). These studies all found that increased civil liberties enhanced the impact of the index of economic freedom on human development.

Case ii: Civil Liberties in the Presence of Economic Freedom

The conditional marginal impact of civil liberties in the presence of economic freedom is given by $\frac{d\Delta CQUL_{it}}{dCL_{it}} = \underset{(0.009)}{0.317} - \left[\underset{(0.011)}{0.049} * EFW_{it}\right]$ and $\frac{d\Delta ELXP_{it}}{dCL_{it}} = \underset{(0.000)}{0.434} - \left[\underset{(0.000)}{0.067} * EFW_{it}\right]$ for the poverty index and life expectancy models, respectively. Consequently, we evaluate the statistical significance of this impact for a reasonable value of index of economic freedom. When the economic freedom index gets to its mean value (meaning, economic freedom index = 0), the marginal impact of the index of civil liberties is 0.317 and 0.434 for the composite quality of life index and life expectancy models, respectively. However, with the negative signs of the interactive terms indicating buffering interaction, a higher value of the economic freedom index increases the effect of civil liberties on the quality of life. This finding implies that more economic freedom boosts the effect of civil liberties on the quality of life in Africa.

Interactive Effect of Conflict and Economic Freedom on Quality of Life

To provide further evidence regarding the effect of economic freedom on quality of life conditional on political risk factors, we look at conflict channels. Increased conflict will adversely impact the quality of life, while a low level of conflict will enhance the quality of life. The results in Table 7 show that the coefficients of the interactive

Table 7. The Interaction Effect of Economic Freedom and Conflict on Quality of Life in Africa (1985–2016)

	MODEL I (CQUL)		MODEL II (GDPPC)		MODEL III (COMPC)		MODEL IV (LEXP)		MODEL V (SCHENROL)	
Vrb	D-GMM	S-GMM	D-GMM	S-GMM	D-GMM	S-GMM	D-GMM	S-GMM	D-GMM	S-GMM
Lag of Dep	0.748***	0.959***	0.891***	0.990***	0.779***	0.082***	0.970***	1.012***	0.889***	0.994***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
C		−1.566***		0.222***		−0.247*		0.258***		1.925**
		(0.000)		(0.004)		(0.056)		(0.000)		(0.030)
EFW	0.412***	0.032**	0.020***	0.009***	0.087***	0.016*	0.039***	0.086***	1.366**	0.023
	(0.000)	(0.000)	(0.002)	(0.001)	(0.000)	(0.056)	(0.000)	(0.006)	−0.01	(0.792)
CONFL	−0.691***	−0.345***	−0.027**	−0.056***	−0.092***	−0.072***	−0.301***	−0.317***	−2.768***	−0.206***
	(0.001)	(0.000)	(0.021)	(0.004)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.003)
EFW*CONFL	−0.113***	−0.066***	−0.009***	−0.011***	−0.015***	−0.013***	−0.059***	−0.058***	−0.501***	−0.027**
	(0.002)	(0.000)	(0.002)	(0.005)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.036)
GDPG	0.014***	0.029***			0.004***	0.008***	0.008***	0.032***	0.015	0.024***
	(0.003	(0.000)			(0.000)	(0.000)	(0.000)	(0.000)	(0.002)	(0.000)
FAID	0.270***	0.064***	0.029***	−0.014***	0.022***	0.017***	0.225***	−0.044***	−0.665***	−0.021
	(0.000)	(0.003)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.008)	(0.000)	(0.594)
POPG	−0.044***	0.049	−0.0001	−0.011***	−0.001	−0.031***	0.063**	0.135**	1.634	−0.004
	(0.550)	(0.003)	(0.984)	(0.131)	(0.890)	(0.000)	(0.011)	(0.028)	(0.318)	(0.980)
AR(1)	−1.98**	−1.99**	−2.71	−1.53	−2.48**	−2.43**	1.78*	2.53**	−2.32**	−2.33**
	(0.048)	(0.047)	(0.007)	(0.126)	(0.013)	(0.015)	(0.076)	(0.011)	(0.021)	(0.020)
AR(2)	1.61	1.62	−1.11	0.84	1.73	1.79	1.88	−0.84	0.38	0.40
	(0.108)	(0.101)	(0.267)	(0.402)	(1.83)	(0.174)	(0.160)	(0.402)	(0.140)	(0.691)
Sargan test	89.16	153.07	122.16	78.21	142.01	94.06	709.7	736.84	308.75	352.06
	−0.276	−0.112	(0.262)	(0.756)	(0.241)	(0.310)	(0.657)	(0.995)	(0.140)	(0.226)
Obs	262	345	596	704	511	597	596	704	290	386

Source:

Notes: *,**, *** indicates level of significance at 10%, 5% and 1% respectively. The value in parenthesis is probability value of each coefficient.

term, EFW*CONFL, are negative and significant in all specifications. This result suggests that economic institutions decrease the quality of life in high-conflict countries. On the other hand, the foreign aid and GDP per capita coefficients are positive in almost all specifications. The only exception is the foreign aid coefficient in school enrolment and life expectancy. The sign of population growth changes depends on the quality of life used, but the coefficient is generally not significant.

Economic Interpretation of Marginal Effects

We investigate the conditional marginal effects in two distinct ways: (a) the impact of economic freedom on quality of life in the presence of conflict (case a), and (b) the impact of conflict on quality of life when there is economic freedom (case b).

Case i: Economic Freedom in the Presence of Conflict

When the study made use of the system GMM results in Table 7, the conditional marginal effect of index of economic freedom on the quality of life in the presence of conflict is presented as $\frac{d\Delta CQUL_{it}}{dEFW_{it}} = \underset{(0.000)}{0.032} - \left[\underset{(0.000)}{0.066} * CONFL_{it}\right]$. Then, the statistical significance of this impact is being estimated for a realistic value of conflict. When conflict gets to its mean value (i.e., index of conflict = 0), then the marginal effect of economic freedom is 0.032. Thus, the negative sign of the interactive term in the composite quality of life model implies a buffering interaction. A higher value of conflict diminishes the effect of economic freedom on the quality of life. The same applies to other measures of quality of life. Thus, it can be concluded that a worsening level of conflict lessens the magnitude of the impact of economic freedom on the quality of life.

Studies have claimed that conflicts do not encourage businesses, at least not legitimate ones, and they bring more considerable government control over the country's economy. A collection of historical evidence, modern theorists and statistical findings pointed out that a reduced conflict level in the country is associated with increased economic freedom. In addition, modern writers approve of the benefits of freedom, especially commercial freedom. Sen (1999) contends that economic growth emerges more from a friendlier economic climate than a harsh political system associated with conflict situations in the country, no matter what form: a coup d'etat, revolution, rebellion or war. Furthermore, Barbara Crossette (1997) finds that people are free to channel their energies into economic activities during times of peace.

Case ii: Conflict in the Presence of Economic Freedom

From the system GMM estimation, the conditional marginal effect of conflict index on the composite quality of life in the presence of economic freedom is given by $\frac{d\Delta CQUL_{it}}{dCONFL_{it}} = \underset{(0.000)}{0.345} - \left[\underset{(0.000)}{0.066} * EFW_{it}\right]$. The statistical significance of this marginal impact for reasonable values of conflict is then being calculated. Therefore, when the mean value of economic freedom is attained (i.e., economic

freedom index = 0), the marginal impact of conflict is 0.345. Thus, the negative sign of the interactive term in PCA generated quality of life index, GDP per capita, and final household consumption per capita models implies a buffering interaction. An increase in the value of economic freedom diminishes the effect of conflict on the composite and other measures of quality of life.

Based on our analysis in this study, we established that political risk factors moderates the impact of economic freedom on the quality of life and its indicators in Africa. This assertion is evident as all the indicators (political rights, civil liberties and conflict) impact the role of economic freedom on the quality of life. Also, as shown for the 15 ECOWAS countries, civil liberties, political rights, conflict and corruption moderate the impact of economic freedom on human development (Okunlola & Ayetigbo, 2021). This finding allows policymakers, particularly in African countries, to know how policies on political risk factors and economic freedom could be combined to bring about the desired level of quality of life. On the other hand, Okunlola and Akinlo (2021) found poor economic freedom in Africa with an attendant low quality of life. Although they found that the initial impact of economic freedom on quality of life in the short run is negative, then the impact changes to positive in the long run. The reason for this trend may result from the role of political risk factors in the relationship. Therefore, the increase in economic freedom may not be impactful at the initial level. Still, in the long run, and with the attendant improvement in political risk factors, economic freedom will increase the quality of life.

Conclusion

This article has examined the empirical question of whether the political risk factors can enhance economic freedom's impact on the quality of life. The analysis would assist those countries striving to enhance the quality of life for their citizens to know which type of freedom to promote at the expense of the other.

The study employed countries' indexes reflecting the level of economic freedom, quality of life, and political risk factors in 44 African countries from 1985 to 2016. The results obtained using both difference and system GMM indicate that economic freedom significantly impacts the index of quality of life in Africa. Furthermore, we found that an increase in economic freedom in society would improve all the quality of life measures. Also, we found that civil liberties and political rights positively moderate the effect of the index of economic freedom on the quality of life in Africa. These findings imply that increased levels of political rights and civil liberties will increase the impact of economic freedom on the quality of life.

Furthermore, conflict negatively moderates the effect of economic freedom on the quality of life. This finding implies that political risk factors must be improved upon for economic freedom to boost the quality of life in Africa. In short, the results provide evidence in support of both the North and Hierarchy of Institution hypotheses. These hypotheses posit that political institutions help to create the good environment for the formulation and implementation of sound economic institutions required to achieve good economic outcomes, including improved quality of life.

The derived results allow the following conclusions. First, countries in Africa would enjoy an improved quality of life by strengthening their degree of economic freedom. Second, our findings show that political risk factors, especially civil liberties and political rights, must be strengthened and conflicts reduced to boost the positive effect of economic freedom on the quality of life in Africa. Third, policies that increase aid and economic growth will promote enhanced quality of life in Africa.

In conclusion, we may expect improved quality of life when a country has increased economic freedom and political freedom, reduced conflict levels and increased foreign aid and income.

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Appendix A. List of 44 African Countries Used

Algeria	Angola	Benin	Botswana	Burkina Faso
Burundi	Cameroon	Cabo Verde	Central African Republic	DR Congo
Congo Republic	Cote d'ivoire	Egypt	Ethiopia	Gabon
Gambia	Ghana	Guinea	Guinea Bissau	Kenya
Lesotho	Liberia	Libya	Madagascar	Malawi
Mali	Mauritania	Mauritius	Morocco	Mozambique
Namabia	Niger	Nigeria	Rwanda	Senegal
Seychelles	Seirra Leone	South Africa	Tanzania	Togo
Tunisia	Uganda	Zambia	Zimbabwe	

Source:

Notes

1. The Principal Component Analysis (henceforth PCA) is adopted in computing the multidimensional quality of life index. The approach captures the economic well-being, human capital development, longevity and standard of living in Africa. The PCA allows us to reduce the number of variables without losing too much information. It is highly efficient in generating fewer numbers of variables that explain most variation in the original variables. However, the new variables obtained are linear combinations of the original variables. The first set of new variables generation through PCA account for as much as possible of the variation in the original data.
2. However, this is based on the assumption that the increase in economic growth trickles down to benefit the large society.
3. We have not included the results of the PCA here for space consideration. Formal presentation of the results of PCA for the forty-four countries will require so many pages. However, the results can be made available on request.
4. The main weaknesses of both the fixed and random effects approaches have been noted in the literature (details can be found in Beck & Jonathan, 2001).
5. The difference between Tables 3 and 4 is that while Table 3 has political rights as a variable, Table 4 has civil liberties.
6. The argument is that economic freedom and the political risk factors are not independent of one another; therefore their quality of life effects need to be examined through the estimation of conditional marginal effects of these variables. This explains the calculation of the conditional marginal effect as reported in this work.
7. The values in brackets are the *p*-values.

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