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EMPIRICAL ANALYSIS OF CORRUPTION AND ITS EFFECTS ON ECONOMIC GROWTH AMONG COMESA COUNTRIES

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Abstract

Corruption is rampant in most of African countries. This article empirically analysed the effects of corruption on economic growth while controlling for regime change among the COMESA countries. The findings indicate a negative influence of corruption on economic growth. Corruption diverts public funds and resources away from productive investments towards inefficient or non-essential projects, leading to suboptimal economic outcomes. High levels of corruption deter both domestic and foreign investment by increasing the costs and risks associated with doing business. This limits capital inflows necessary for economic expansion. COMESA countries with high levels of corruption face significant challenges in functioning properly and achieving economic prosperity, leading to widespread suffering. In such economies, resources are inefficiently allocated, and government contracts are often awarded to unqualified companies through bribery or kickbacks. This degradation extends to critical sectors like education and healthcare, lowering the overall quality of life for citizens. Furthermore, corruption poses a major barrier to international investment. While investing in emerging economies remains attractive, investors are understandably cautious about risking their capital in countries where corruption is pervasive.

KEYWORDS: CORRUPTION, REGIME CHANGE, ECONOMIC GROWTH

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1. Introduction

Corruption is a core issue afflicting the corporate sector, hindering economic growth and development (Nwoke et al., 2023). Numerous researchers explore the connection between corruption and economic growth through various methods. For instance, corruption results in reduced investment, slower economic growth, increased foreign trade restrictions, and deteriorating public expenditure (Acaravci et al., 2023). Building on this premise, this paper examines the relationship between corruption and economic growth with consideration of the regime change within the governments. Corruption is a complex phenomenon with numerous

sources and impacts, appearing in various forms and contexts. It can range from a single illicit payment to systemic political and economic dysfunction. Corruption is viewed as a structural issue in politics and economics, as well as a cultural and moral problem.

Consequently, definitions of corruption vary widely, from broad terms like misuse of public power and moral degeneration to more specific legal definitions such as bribery involving a public worker and a tangible resource transfer (Andvig et al., 2000).Corruption can be recorded or quantified in a variety of ways; the following are some indicators that can be used to capture the corruption perception index (CPI). Bribery, diversion of public funds, the prevalence of officials using public office for private gain without facing consequences, governments' ability to contain corruption and enforce effective integrity mechanisms in the public sector, red tape and excessive bureaucratic burden, which may increase opportunities for corruption, meritocratic versus nepotistic civil service appointments, effective criminal prosecution for corrupt officials, and adequate law enforcement.

Corruption is also significantly influenced by the low salaries of public administration employees (state officials), who may accept bribes to improve their financial situation. Consequently, the socioeconomic status of government officials affects the prevalence of corruption. Allen, Qian, and Shen (2018) found that corruption occurs when agencies, institutions, and the government fail to effectively control it due to underpaid officials. This issue is especially prevalent in developing countries, where inadequate tax revenue prevents proper compensation for local officials. Corruption is also influenced by the poor pay of public administration employees (state officials), who try to improve their financial status by accepting bribes; as a result, the socioeconomic situation of government officials has an impact on the phenomena of corruption.

According to Allen, Qian, and Shen (2018), corruption occurs when agencies, institutions, and the government are unable to effectively manage corruption due to underpaid officials, which is an issue in developing nations when tax revenue is insufficient to fairly reward local authorities. Broadly, Andvig et al. (2000) defined corruption as the misuse of public power, while legally; it is defined as bribery involving a public servant and the illicit transfer of public resources for personal gain.

2. Relationship between Corruption and Economic Growth

Empirical literature has demonstrated a linear negative relationship between economic growth and the corruption. Using panel data from developing countries for the period 1984-2009, which categorizes countries into high-income countries and low-income, lower-middle-income, and upper-middle-income countries, researchers such as Li et al. (2000) found that corruption is negatively associated with investment and economic growth. These studies further revealed that the causality runs from the corruption index to economic growth.

Similarly, Shabbir & Anwar (2007) investigated the effect of corruption in developing and established that corruption has a negative relationship between corruption index and economic freedom. The study confirmed that increased economic freedom reduces corruption of a country. Alfada (2019) assessed the effect of corruption on economic growth by applying nonlinear to determine the intensity of corruption by analyzing the effect of corruption on economic growth for the period 2004 – 2015 in Indonesia. The study examined whether corruption is beneficial to economic growth. It concluded that corruption worsens economic growth process in Indonesian provinces if it exceeds certain threshold. Corruption threshold effect is assessed using a sample-splitting and threshold model developed by Hansen (2000), and the endogeneity issue is addressed using the instrumental variable two-stage least squares (2SLS) estimator.

Ahmad, Ullah & Arfeen (2012) in their study used panel data from the International Country Risk Guide, corruption index, institutional quality and political stability indices and several state variables for developed and developing countries to show the relation between corruption and economic growth using generalized method of moments. This study controlled for trade openness, the ration of government spending to GDP, risk of investment, gross growth, and lag of GDP per worker. The results indicated there is a negative linear relationship between economic and corruption index among countries.

Similarly, Hoinaru *et al*., (2020) in their study entitled The Impact of Corruption and Shadow Economy on the Economic and Sustainable Development. Do They “Sand the Wheels” or “Grease the Wheels”? using a cross section of 185 countries showed that there is negative relationship between corruption and economic growth. The study further corruption is a common phenomenon among low-income countries. Contrary the study also showed that corruption acts a

way in which institution and individuals circumvent the laws to achieve to achieve economic benefits that will in turn lead to higher economic growth.

Méon & Weill (2010) in their study whether corruption as an efficient grease. Investigated whether corruption may be efficient tool in the grease the wheels of a deficient institutional framework. The study analyzed the interaction between aggregate efficiency and corruption using a sampled data from 69 countries both from the developed and developing. It was observed from the analysis that corruption has positive relationship with c economic growth in less developed while is showed a less detrimental effect in developing countries with weak government institution. Similar findings were found by Colombatto (2003) who found a positive relationship between economic growth and corruption accelerates the growth of the economy in the economy as it acts as speed for money in unfavorable economic conditions such as in time political instability in developing economies.

There is a spatial correlation between and within countries; corruption in one country has been proven to be positively connected with corruption in other countries (Jetter and Parmeter 2018, Borsky and Kalkschmied 2019). For a variety of reasons, it is anticipated that corruption will positively correlate between neighboring nations. First, businesses frequently engage in trade and collaboration with counterparts in nearby nations. Corruption and other business practices are communicated between nations. Second, attitudes from surrounding societies are spread through migration. Third, political interaction between nearby nations is also likely to increase the likelihood of shared corruption exposure. For instance, governments uphold shared borders, control trade internationally, and carry out common rules as handled by the European Union. Clearly, interrelations between firms, migration of citizens, and political exchange coincide and reinforce each other. For a more detailed discussion on how corruption is likely to transmit across neighboring countries see Borsky and Kalkschmied (2019).

There are two basic ways that corruption harms an economy: first, it affects the availability of physical resources, and second, it affects the availability of human capital. The increased costs of conducting business are the primary justification for the detrimental effects of corruption on an economy (O'Toole & Tarp, 2014). These expenses typically result from having to pay a bribe or add another position, which strains the budget and decreases the profitability of the business.

When a corporation tries to conceal higher expenditures in its books, new costs become apparent. It must hire individuals with a specific set of skills for this aim. Corruption also makes doing business more dangerous since if this crime is exposed. The increased uncertainty of receiving a return is caused by the increasing costs of running company, which also lowers investors' expectations of a rate of return. Another effect of paying for corruption is the wasteful use of resources because money meant for bribes may instead be used to grow the business (Drury, Krieckhaus, & Lusztig, 2006). These expenses might include not just the cash resources used, but also the time that employees spent at work engaging in the full corruption process and its cover-up. As a result of corruption, both monetary capital and human capital will be less productive.

Mexico has continued to find methods to advance despite its elevated levels of corruption. Mexico's exports of goods are largely responsible for its economic prosperity. Mexico is the world's 12th-largest exporter, and 90% of its trade agreements are covered by free trade agreements (Amadeo & Estevez, 2020). It seems that corruption in Mexico, particularly when it comes to trade agreements, does not obstruct progress as much as it does in other nations. The majority of the study's participating nations closely followed the trend line of the basic linear regression line. Given the high CPI score of Luxembourg, the conclusions of this study would suggest that they would have high growth levels.

This assumption is true, but why is Luxembourg’s GDP per capita the largest amongst all other countries in this study? While reliable government processes and little corruption certainly contribute to the growth of Luxembourg, something else must be contributing to these large GDP per capita measurements. The notion that corruption can, under some circumstances, be advantageous for progress is perhaps the most unusual one. Typically, corruption is seen as a barrier to growth because of its dishonest and illegal nature (Al Qudah et. al, 2020; Mo, 2000;, Aidt, 2009). The main premise of this argument is that high-ranking officials' corrupt behavior has the ability to allow profitable trades that would not otherwise have occurred. Transactions and contracts may take a very long time to complete or may never be fulfilled in nations with poor infrastructures or unreliable governments.

Corrupt practices can actually increase efficiency by enabling members of the private sector to address or go around these limitations, which can "oil the wheels" and help governments overcome these shortcomings (Aidt, 2009). Peru is a prime example of how corruption aided development. Alberto Fujimori, the president of Peru, had a significant role in halting the rise of communism and bringing economic stability to Peru in the 1990s. However, Fujimori did so by engaging in a number of unscrupulous practices (Olken & Pande, 2012). Fujimori made the decision to appoint a secret police head in order to bribe judges, lawmakers, and the news media as a result of inefficient markets and insecure government operations. This is an illustration of a dishonest practice called "speed money," where bribes act "like a piece rate or price discrimination and deliver faster or better service to the firms with the biggest opportunity cost of waiting" (Matthews, 2014). Peru's GDP per capita increased by more than 10% from 2000 to 2010 this is the time of Fujimori's administration. Around 2% was the global average growth rate for GDP per person during that time. The corruption that occurred in Peru under Albert Fujimori's presidency appears to have contributed to the country's economy's expansion. More developed countries are not immune to corruption.

The corruption that exists in advanced economies is often more subtle than that which exists in developing nations. In the United States, for instance, this is very evident. It is undeniable that people in positions of authority, even at the local level, exert a great deal of influence over national policy. The corruption that exists in American government is highlighted by a recent incident in Cincinnati, Ohio. As of November 2020, three Cincinnati city council members are facing corruption charges, and one of them has already entered a guilty plea (Levenson, 2024).

Despite their unscrupulous actions, these council members' acceptance of bribes is a superb illustration of how money can "oil the wheels" of political processes. Therefore, using corruption in the form of bribes to get around challenges faced by local governments makes sense. It is obvious that corruption has the capacity to spur economic growth after examining a number of corruption incidents. Corruption can assist businesses circumvent ineffective procedures and bypass rules, especially in developing nations. Furthermore, in industrialized nations, "a little regulated wrongdoing can operate like a lubricant that makes it easier to move forward" . Corruption is without a doubt a dishonest and evil act. Corruption not only undermines a society's morality but also hinders a nation's development. As was already mentioned, it has been

maintained that corruption has the potential to promote growth and more effective governmental procedures.

However, a more prevalent view on corruption is that it stunts development and destroys the national economy (Al Qudah et. al, 2020). Countries built on corrupt principles frequently disintegrate because of the threat that corruption poses to long-term sustainability (Aidt, 2009). By "greasing the wheels" of the economy, corruption might be able to temporarily alleviate some problems, but it is not something that a nation should turn to if it wants to maintain future prosperity. According to reports, corruption poses a variety of challenges to the expansion of an economy.

Many studies back up this assertion. According to most academic research, corruption has a detrimental impact on growth rates (AlQudah et. al, 2016). For instance, economic and financial researchers determined that "corruption has a negative direct long-term effect on per capita GDP in Tunisia" in a detailed analysis of the country from 1995 to 2014 (Al Qudah et. al., 2020). Utilizing various Mauro used the most trustworthy indicator of economic growth, gross domestic product per capita, to ascertain how corruption influences the growth rates in these nations. Following that, a regression analysis of the GDP per capita and Bureaucratic Efficiency scores for these nations between 1980 and 1983 was conducted. The findings indicated that the study's correlation coefficient was 0.68. Typically, a strong, positive correlation is defined as any statistical investigation with a correlation coefficient above 0.50(Frost, 2020). In light of this, Mauro's research established that the GDP per capita of a nation should increase as its Bureaucratic efficiency index score increases and vice versa.

Similarly, Aghion *et al.*, (2004) and Blackburn *et al.*, (2006) found that corruption has a negative effect on investment and brings economic uncertainty. Ola, Mohammed and Audi (2014) analyzed the main effects of corruption index in Nigeria. The study found out that corruption has a negative effect on economic growth in Nigeria as it devalues the quality of human life, robs country’s institutions such as schools, hospital and agricultural sectors and welfare funds. And it concludes that the corrupt behavior must be punished.

Pulok (2010) studied the impact of corruption on economic development of Bangladesh based on the extended Solows model over long run relationship for the period 1984 -2008. In the study,

the neoclassical model of economic growth by Solow (1956), human capital and public sector were included. The study utilized Auto-Regressive Distributed Lag (ARDL) Bounds Test method. The results of co-integration test confirmed that there is a long run relation among corruption, GDP per capita and other determinants of GDP over the study period. The study further established that the error correction term was negative and significant implying that there is long term association between corruption index and economic growth. The long run estimates indicated that corruption has direct negative impact on per capita GDP economic development of Bangladesh. The findings implied that corruption has increased in the level of public sector and also had no significant effect on GDP.

Ghazi (2014) evaluated corruption and growth by applying panel data that was obtained from Transparency International, World Bank and Penn World tables. A sample of 38 developing countries over the period of 2000-2007 was used. Other variables included in the study included trade openness which was a control variable, investment and foreign direct investment through corruption index and economic growth. The results indicated that an increase in corruption index by one percent leads to decrease in GDP by approximately 1.64 percent

Bass (2019) aimed at assessing the influence of institutional quality and world oil prices on performance of Russian manufacturing sector. The study utilized time series data that were collected since 1996 to 2017 for Russia. The study explored that the relationship between institutional qualities, which was measured using the corruption perception index, world oil prices and performance of Russian Gross Domestic Product using the Vector Error Correction model. To check for the casual relationship, Granger causality test was conducted. The regression findings of the study confirm that oil prices, institutional quality and economic growth in Russia are co-integrated in the long run. But the short-run effects are not statistically significant. The Granger causality test results showed that there is a unidirectional causality running from oil prices and institutional quality to economic growth in Russia.

Smits (2019) did a study on corruption and economic growth in Africa. The study was motivated by contradicting statements concerning corruption. While other studies showed that corruption is an impediment to economic growth while others contented that corruption is a device that saves a troublesome nation. The study used four different empirical models, estimated using data from

46 African countries, to show that between 2000 and 2017, corruption was a negative variable on economic growth within Africa. This implied that there is a strong negative correlation between corruption and economic growth and that countries that are more corrupt, tend to grow slower than countries that are less corrupt. Additionally, the results showed that the effect was weaker in poorer economies.

Omodero (2019) investigated the consequences of corruption on economic development in Nigeria. The study made use of the position of Nigeria in the country corruption classification captured by Transparency International and the rate of corruption prevailing in the country to evaluate the extent of influence corruption has on economic growth of the country. The study employed secondary data found from World Bank Development Indicators and Transparency International which cover a period of ten years. The regression result indicated that the country corruption classification has a significant negative impact on economic growth in Nigeria whereas the rate of corruption dominant in the country had a significant positive influence on economic growth in the country. The two results were significant and therefore the study concluded that the image of the country has been tarnished globally due to the high level of corruption in Nigeria and as internationally perceived. Consequently, significant investment opportunities avoid the country even all the same the economy is rising with the high rate of corruption prevailing in the country. The study recommended amongst others that the religious clergy and non-governmental organizations should help in decreasing the threat of corruption by instilling moral values in the young age group who should grow up to say no to corruption and its magnetisms.

Grundler *et al.,* (2019) investigated corruption and economic growth in Nigeria. The relationship between corruption and economic growth had been researched for a long time. However, majority of the empirical studies measured corruption by the reversed Transparency International's Perception of Corruption Index (CPI) and ignored that the CPI was not comparable over time. The CPI is comparable over time since the year 2012. The study employed new data for 175 countries over the period 2012 to 2018 and re-examine the relationship between corruption and economic growth. The results showed that corruption causes a decrease the economic growth. The effect of corruption on economic growth was majorly

prominent in absolutisms and conveys to growth by reducing foreign direct investments and causing an increase in inflation.

Nurdeen *et al.,* (2019) conducted a study on the determinants of corruption in Nigeria. Curbing corruption has been one major problem facing government and decision makers in Nigeria. The study employed the Autoregressive distributed lags technique to analyze the determinants of corruption in Nigeria over the period 1984–2016. The outcome of the cointegration test indicated that corruption and its determinants have a long-run relationship. The results of the Autoregressive distributed lags estimation establish that economic development, political rights, military expenditure, rents, civil liberties and openness, are the leading determining factors of corruption in the long run. Higher-economic development, greater civil liberties, more openness and higher military expenditure are connected to reduce corruption, but higher rents and political rights are related with higher corruption. Grounded on these outcomes, the study recommended policies to stimulate economic growth, civil liberties, political rights and openness, comprising decreasing the dependence on the oil sector to control corruption in Nigeria.

Obamuyi *et al.,* (2019) investigated the effects of corruption on economic growth as measured in real Gross Domestic Product (GDP) per capita growth in Nigeria and India because of the pervasive corruption in the two low-income countries. The data for the study which covered 1980-2015 was extracted from the World Bank data repository. Corruption was measured by the Corruption Perception Index. Population growth rate, trade openness, education and the output of agriculture, industry and service sectors were also included in the study as the independent variables. Correlation coefficients were used to show a correlation between corruption and GDP growth rate for both countries.

Ordinary Least Square regression was used to estimate the effects of corruption on economic growth. From the regression, the study found out that Corruption has a stifling effect on economic growth when the measures of human capital, political instability and capital formation were not included in the estimation for India; Corruption has a positive effect on economic growth when the measures of human capital, political instability and capital formation were included interchangeably and combined together in the estimation for India; Corruption was found to have a stuffy effect on economic growth when the measures of human capital, political

instability and capital formation were both included and exclude Corruption and economic growth in India and Nigeria. The diffusion mechanism results showed that corruption adversely affects economic growth through investment and human capital in both countries.

Mwangi *et al.,* (2019) carried out a study to establish the association between corruption and capital flight in Kenya over the period spanning from 1998 to 2018. The study utilized the quarterly time series data which were sourced from the Central Bank of Kenya and Kenya National Bureau of Statistics (KNBS). Corruption perception index data was collected from the Transparency International website. Two Autoregressive Distributed-lagged models were fitted. Regression coefficients for corruption and the rest of the variables were negative but not statistically significant both in the short-run and in the long-run. Regression results of lagged capital flight on capital flight showed a coefficient of 0.904 which was statistically significant. Thus, the study suggested that the government should formulate policies that would stop more capital flight and produce capital flight reversal.

Ouma (2019) studied the effect of tax reforms, economic growth and political environment on total tax, direct tax and indirect tax revenues spending annual data for the period 1964-2016. Various techniques of analysis were employed. The study established that: all taxes responded positively to each of the tax reforms; changes in all taxes were affected by the reforms because GDP was also growing; economic growth has positive significant effect on all the categories of taxes; Government effectiveness has positive impact on indirect taxes; and that even though government control of corruption effect on tax revenues is statistically insignificant, it could promote the revenue generation more than economic growth. The study findings suggested the following policy guidelines: that the government should put more weight on governance to enhance revenue collection. Government effectiveness and control of corruption would go a long way to enhance tax compliance, reduce tax avoidance and evasion, eliminate illicit flows and reduce illegal collusion between taxpayer and tax administrator that may deprive government of due revenues.

Dankumo *et al.,* (2019) sought to study the impact of public expenditures and corruption on poverty in Nigeria. The study used time series data for the analysis, these data was sourced from the central bank of Nigeria, Nigeria bureau of statistics, and World Bank from 1996 to 2016).

Autoregressive distributed lags model was employed. The outcomes of the study showed a long run negative relationship between expenditures and poverty, with only expenditures on economic been significant, while that of social sector is not, meaning of the former impact while the later does not impact. Corruption is positively related to poverty, as CPI increases, the poverty rate also increases.

3. Research Methodology

Research Design: A research design is a blueprint that lays out the methods and procedures for gathering and analyzing the data needed to answer research questions (Zikmund, 2014). The purpose of this article was to determine the impact of the relationship between corruption, regime change and economic growth among COMESA countries using an explanatory research approach. The purpose of the research design is to investigate and comprehend the cause-and-effect relationship between variables. Panel data, which is part of an explanatory design, allows for the testing and change of cross-sectional analysis assumptions (Baltagi, 2008). Panel data provide additional facts, variability, and competency, as well as the ability to comprehend and measure effects that are not visible in cross-section analysis. The panel study design is useful for tracing changes over time and linking them to variables that may explain why they occur. It helps identify the direction and size of causal links by describing patterns of change. The design enables for the measurement of differences or changes in a variable from one period to the next (i.e., the description of patterns of change over time) as well as the prediction of future events based on previous outcomes.

Target Population: The study focused on African countries that are members of COMESA. The Common Market for Eastern and Southern Africa (COMESA), based in Lusaka (Zambia), is the successor organization to the regional Preferential Trading Area (PTA), which went into effect on December 8, 1994. Burundi, Comoros, DRC, Djibouti, Egypt, Eritrea, Ethiopia, Eswatini, Kenya, Libya, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Somalia, Sudan, Tunisia, Uganda, Zambia, and Zimbabwe are now members of COMESA. With a population of about 430 million people and a combined GDP of US$ 447 billion, COMESA is Africa's largest economic community (WEO, 2017). COMESA's principal goals, like those of other regional

economic blocs, are to eradicate member states' structural and institutional shortcomings while also promoting political stability and long-term economic growth (COMESA).

Inclusion Criteria and Exclusion Criteria: All nations that are members of COMESA are included in this study. Countries that have statistics and information for the 2000-2020 study period. COMESA has 21 member states at the moment. Angola, Burundi, Comoros, DRC, Djibouti, Egypt, Eswatini, Ethiopia, Kenya, Libya, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Somalia, Sudan, Uganda, Zambia, and Zimbabwe are among them. Angola, Libya, and Somalia were left out due to data inconsistencies and the fact that they joined late.

Sources of Data: Data was gathered from a variety of reliable sources. World Bank provided data on economic growth, while Transparency International provided data on the Corruption Perception Index (CPI). Transparency International tracks countries' performance integrity and creates a corruption perception index (Mo, 2001). In this analysis, it is considered that no country in the COMESA region has a perfect level of 10 and 0.

Operationalization and Measurement of Variables: Table 1 presents variable description, measurement, and hypothesized relationship with dependent variables.

Table 1: Description and Measurement of Variables

Variable	Description	Measurement
Economic growth (ECG)	Economic growth refers to the method and policies that a country uses to increase the economic, political, and social well-being of its citizens (Aron, 2010). Economic growth, according to Mankiw (2014), is defined as an increase in real GDP (gross domestic product)	The percentage growth in real gross domestic product is used to calculate it (GDP).

Corruption perception index (CPI)	Corruption can be recorded or quantified in a variety of ways; the following are some indicators that can be used to capture the corruption perception index (CPI). Bribery, misappropriation of public funds, the widespread use of public office for private benefit without repercussions, and governments'	Corruption index is measure as a range from 0 to 10. In this regard zero is regarded as the highest level of corruption while 10 implies less corrupt. There is no perfect level of 10 and 0 for any countries in this analysis.
Regime change	The term "regime" in the context of the relationship between corruption and economic growth typically refers to the system of governance or political administration in a given country.	Political Regime: This refers to the type of government in power, such as democratic, authoritarian, or hybrid regimes. Countries were coded with respect to regime change. It range from 1 to 5.

Source: Data Analysis

Panel Linear Regression Analysis: This study used multivariate panel regression analysis to examine the specific hypotheses. The capacity to assess the between-groups is one of the most useful elements of panel data analysis (heterogeneity). This is done to isolate the major effects of independent variable mechanisms on economic growth while also assessing how each independent variable influences the dependent variable independently.

Specification of the Econometric: The specifications of an econometric model based on econometric theory and any relevant knowledge about the phenomena. For this investigation, the econometric model is stated as.

$$ECG_{it} = \beta_0 + \beta_1 CPE_{it} + \beta_2 REG_{it} + \varepsilon_{it} \quad \ldots\ldots 1$$

Where: ECG_{it}= economic growth which is dependent variable; β_0 = intercept, CPE_{it}= corruption index, REG_{it} = regime change and ε_{it} = Stochastic error term. The coefficient β_1 and β_2 are the slope parameters to be estimated by panel regression analysis.

4. Results and Interpretation

The corruption perception has as a range from 0 to 10 with zero regarded as the highest level of corruption while 10 implies less corrupt. Table 2 indicates that COMESA countries have a mean real GDP of 85636 million USD and corruption perception index of 2.7 with its deviation of 0.850 and it implies that majority of these countries trading in COMESA are corrupt. Though no perfect level of 10 and 0 for any countries, majority have high indexing to be corrupt. Figure 1 and Figure 2 shows the trends of economic growth and the prevalence of corruption across COMESA countries respectively. These countries are Sudan, Zimbabwe, DRC and Burundi, while Seychelles, Rwanda, Egypt and Kenya had low indexing compared to their counterparts in COMESA trading bloc.

Table 2: Descriptive Statistics

VARIABLES	OBS	MEAN	Std. Dev	Minimum	Maximum
RGDP	378	85636.44	203131.4	706.371	1300000
CPI	378	2.738492	.8504679	1	5.9
REGIME	378	2.2857	1.19586	1	4

Source: Data Analysis

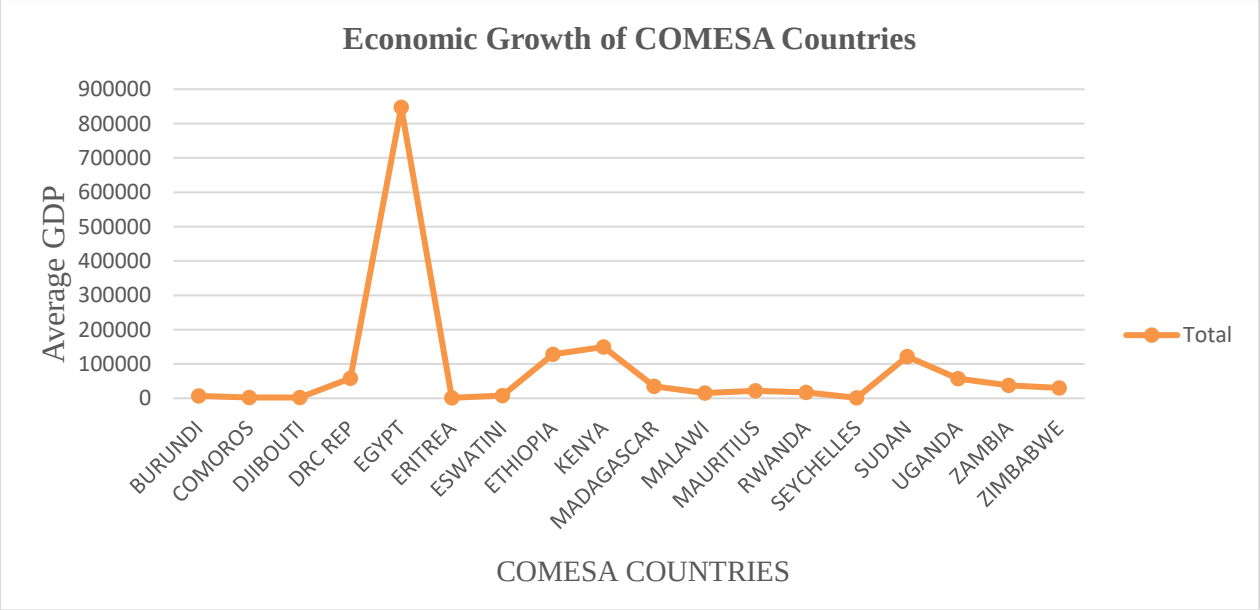

Figure 1: Economic Growth of COMESA Countries

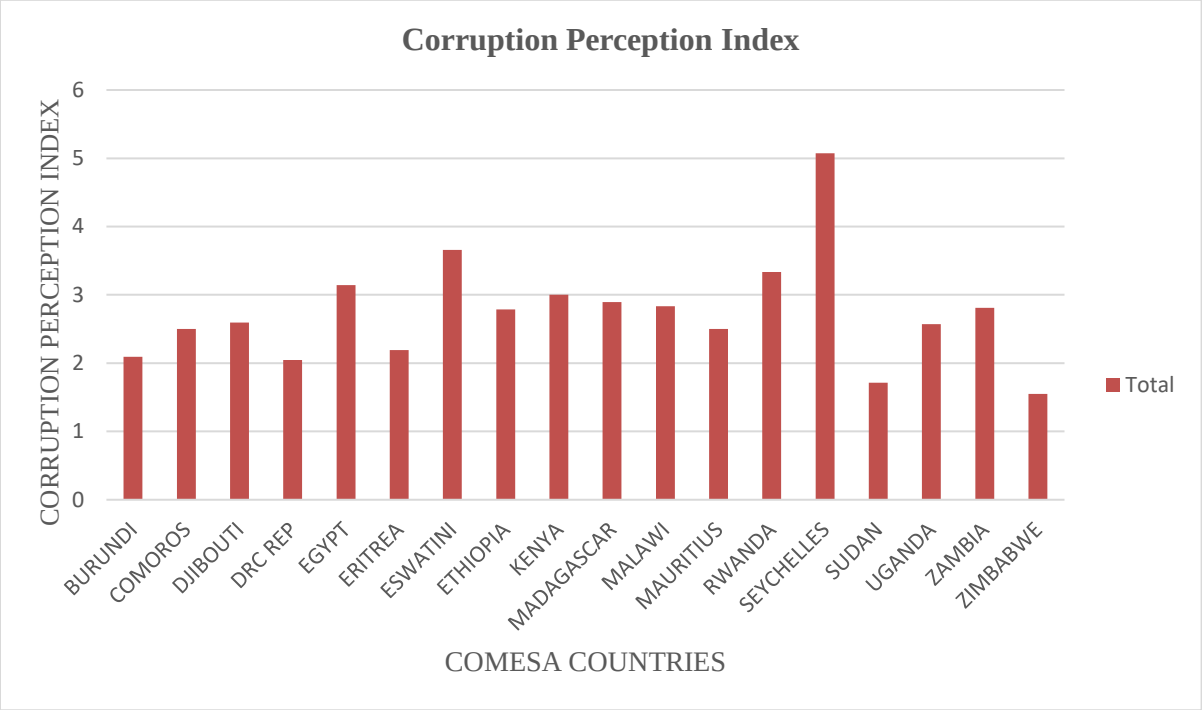

Figure 2: Corruption Perception Index

Source: Data Analysis

The study suggests that corruption takes many forms and has an impact on service delivery, such as when a government official demands bribes to perform regular activities. Corruption unfairly influences how people get government contracts, with awards benefiting friends, relatives, and business acquaintances of government officials. It can also take the form of state capture, which alters how institutions work and who controls them, and is frequently the most expensive form of corruption in terms of overall economic impact. Each sort of corruption is serious, and addressing them all is essential for long-term progress and change.

Bribery, diversion of public funds, prevalence of officials using public office for private gain without facing consequences, lack of governments' ability to contain corruption and enforce effective integrity mechanisms in the public sector, red tape, and excessive bureaucratic burden are all examples of corruption, according to Andvig et al., (2000). Corruption can be viewed as an economics organizational problem or as a cultural and human moral issue. Bribery involving

a public servant and a transfer of tangible resources are two examples of corruption (Andvig et al., 2000).

Regime Change

Descriptive statistics presented in Table 1 show the average regime for the 18 COMESA countries from 2000-2020 was 2. It further indicates that there are some countries with only one regime and others have had 4 regimes. In this case, all the countries with one regime such as Eritrea, Eswatini, Seychelles, Sudan, Rwanda, and Uganda were put in the same category. Comoros, Egypt and Zimbabwe grouped together had two regimes whereas Kenya, Djibouti, Ethiopia and Zambia had at most three regimes. Other countries such as Madagascar, Malawi and Zambia had four regimes. Figure 3 indicate how corruption correlates with regimes. Corruption varied with regime change. Countries with high number of regimes depict high corruption whereas countries with fewer regimes had low corruption. For instance, DRC Rep, had at least 2 regimes showed an increase in corruption but Eswatini and Seychelles had only one regime and reported low corruption cases. However, in contrary to these statements, Sudan which had only one regime had high corruption index

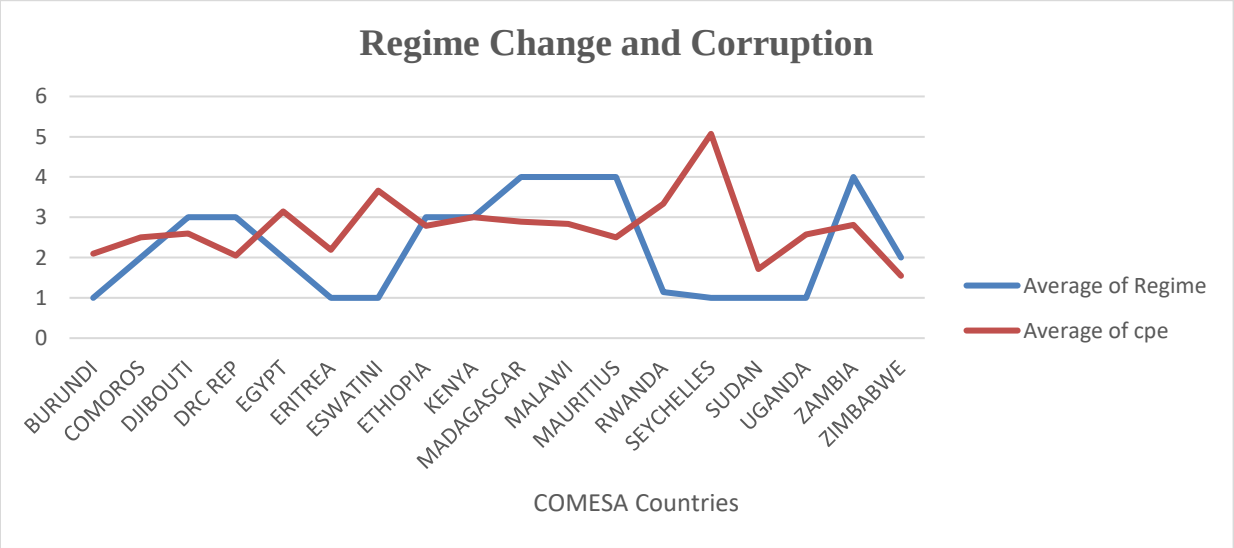

Figure 3: Corruption versus Regime Change

Table 3 indicate corruption negatively influence economic growth. Controlling for regime change, corruption is observed to have an influence on economic growth when regime change is one. However, when a country has at least three regimes, corruption has less influence on growth. This implies countries with political class being in power for longer period of time have

high rate of corruption. Regime change can have a significant influence on corruption, either positively or negatively, depending on various factors such as the nature of the new regime, its commitment to anti-corruption measures, the institutional framework, and the broader political and economic context. New regimes often introduce institutional reforms aimed at strengthening anti-corruption bodies, improving the legal framework, and enhancing transparency and accountability mechanisms.

A new regime led by individuals committed to fighting corruption can set the tone for governance. Strong leadership can drive anti-corruption initiatives and enforce policies that deter corrupt practices. The significance implies that corruption often leads to the inefficient allocation of resources. For instance, public funds may be diverted to projects that offer opportunities for kickbacks rather than those that are most needed or most productive. This results in suboptimal investment and misallocation of resources.

Table 3: Random Effect Regression Results

Random Effects Regression results

Ln GDP	Coef.	Std.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Corruption index	-.335	.102	-3.30	.001	-.534	-.136	***
Regime change	.32	.072	4.43	.000	.178	.462	***
Constant	10.092	.348	29.00	.000	9.41	10.774	***

If regime change is one

Ln GDP	Coef.	Std.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Corruption index	-.615	.101	-6.06	.000	-.814	-.416	***
Constant	11.039	.321	34.41	.000	10.41	11.668	***

If regime change is two

Ln GDP	Coef.	Std.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Corruption index	1.159	.408	2.84	.004	.36	1.958	***
Constant	7.602	1.024	7.43	.000	5.595	9.609	***

If regime change is three

Ln GDP	Coef.	Std.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Corruption index	.977	.458	2.13	.033	.08	1.875	**
Constant	7.981	1.208	6.61	.000	5.614	10.348	***

If regime change is four

Ln GDP	Coef.	Std.Err.	t-value	p-value	[95% Conf	Interval]	Sig
Corruption index	-.154	.111	-1.39	.165	-.372	.064	
Constant	10.529	.311	33.82	.000	9.919	11.139	***

**** p<.01, ** p<.05, * p<.1*

Another reason is that corruption increases the cost of doing business, as companies may have to pay bribes to obtain licenses, permits, or contracts. This not only raises the cost of goods and services but also discourages both domestic and foreign investment, as investors seek more transparent and stable environments. Corruption also leads to tax evasion and loss of public revenue. It undermines trust in public institutions and the rule of law. When businesses and citizens believe that rules are not enforced fairly, they lose confidence in the system, reducing economic participation and compliance with laws and regulations.

Corruption among COMESA countries often results in poor quality of public services such as healthcare, education, and infrastructure. Funds meant for public services are siphoned off, leading to inadequate or substandard services that hinder human capital development and overall economic productivity. It can create or exacerbate bureaucratic inefficiencies. Officials may intentionally complicate processes to extract bribes, leading to delays and increased costs for businesses and individuals, further stifling economic activity.

Further, corruption negatively affects the development of human capital by diverting resources away from essential sectors such as education and healthcare. Poor education and health outcomes reduce the productivity and skills of the workforce, hampering long-term economic growth. High levels of corruption can lead to political instability and social unrest. This instability creates an uncertain business environment, deterring investment and economic activity. COMESA countries perceived as highly corrupt are less likely to receive international aid and assistance. Overall, corruption undermines the foundations of economic growth by eroding trust, increasing costs, and diverting resources from productive uses. Combating corruption is crucial for fostering an environment conducive to sustainable and inclusive economic growth.

5. Conclusion

In conclusion, corruption poses a significant impediment to economic growth and development by distorting market mechanisms, increasing costs, reducing public revenue, and eroding trust in public institutions. The multidimensional nature of corruption results in resource misallocation, inefficiency, and deteriorating public services, all of which undermine the foundations of a robust economy. Addressing corruption through comprehensive reforms, strengthening

institutions, and promoting transparency and accountability is essential for fostering an environment conducive to sustainable and inclusive economic growth. By tackling corruption, COMESA countries can unlock their full economic potential, attract investment, and improve the quality of life for their citizens, paving the way for a more prosperous and equitable future.

6. Policy Recommendations

COMESA countries need to implement and enforce transparency laws that require public disclosure of government contracts, budgets, and expenditures. This will strengthen anti-corruption agencies and whistleblower protections to encourage reporting of corrupt practices. COMESA countries need to ensure that laws and regulations are enforced consistently and impartially across all levels of government. They need to develop codes of conduct and ethics training programs for public officials, emphasizing integrity, professionalism, and service to the public. Encourage corporate social responsibility and ethical business practices in the private sector.

They need to build the capacity of public institutions, including judiciary, law enforcement, and auditing bodies, to effectively investigate and prosecute cases of corruption and provide adequate resources and training to ensure independence and efficiency in governance institutions.They should promote citizen engagement in decision-making processes to enhance transparency and reduce opportunities for corruption. They should collaborate with international organizations and neighboring countries to combat cross-border corruption, money laundering, and illicit financial flows. Furthermore, they should adopt international best practices and standards to strengthen anti-corruption efforts and improve governance.

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