Are abundant natural resources in the Democratic Republic of the Congo a blessing or curse?

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Abstract

This study investigates how natural resources and institutional quality (IQ) impact the economic growth of the Democratic Republic of the Congo (DRC). Based on data annually from 1985 to 2022 using ordinary least squares regression the findings highlight that human capital development, inflation, foreign direct investment (FDI), oil rents, forest rents, political instability, conflict, and corruption significantly hinder the country's economic progress. This suggests that despite its abundant natural resources, the DRC faces more economic challenges than benefits from them. As a result, the study recommends stringent monitoring and oversight of mineral revenue management, establishment of stable political conditions, and aggressive measures to combat corruption and conflict. These actions are crucial in transforming the current curse of natural resources into a potential blessing for the country.

Keywords: Congo; economic growth; FDI; institutional quality, natural resources

Introduction

The Democratic Republic of the Congo (DRC) stands out among African nations for its vast natural resources, placing it among the world's most resource-rich countries. The country's mineral wealth, which includes gold, tantalum, cobalt, copper, and coltan, constitutes approximately 24% of global mineral resources (Ndjungu, 2020). These minerals are predominantly found in key regions such as the Kilo-Moto Goldfield, the Manono-Kitenge Tin-Tantalum Belt, and the Katanga Copperbelt, the latter being the largest and most economically significant mining area in the DRC. The DRC holds the largest copper and cobalt reserves globally, underscoring its substantial natural resource endowment (Waku et al., 2023).

The global economy heavily relies on the DRC's mineral resources, critical for electronic devices, mobile phones, and electric vehicles. Copper, indispensable across construction, manufacturing, and technology sectors, plays a pivotal role (Gulley, 2022). Tantalum and coltan are essential for producing electronic components like resistors and capacitors. Notably, the DRC possesses the third-largest tantalum reserves and the second-largest copper reserves globally (Danysz, 2021). These resources present significant economic potential for the nation due to their global demand.

Despite its abundant mineral wealth, the DRC remains one of the world's poorest nations—a paradox attributed to numerous challenges within its resource sector, hindering economic growth and mining industry development (World Bank, 2017). Decades of stagnation and conflict have plagued the DRC's mining sector (World Bank Group, 2018; Manojlovic & Kabanga, 2023). Issues such as corruption,

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bribery, lack of transparency, and allegations of political profiteering from mining activities contribute to contractual opacity and revenue mismanagement (Titeca & Edmond, 2019; Wakenge, 2020). Moreover, the industry grapples with insufficient skilled labor and a weak regulatory framework, fostering unsafe and illegal mining practices (Otamonga & Poté, 2020).

The resource curse theory posits that nations rich in resources often experience slower economic growth (Auty, 1995). In the case of the DRC, ongoing debates examine the impact of mineral revenues on economic expansion, with studies yielding mixed results—some indicating positive effects (Ampofo et al., 2020; Murhula & Achiza, 2021), while others highlight negative consequences (Nichols, 2018; Titeca & Edmond, 2019; Tshinu, 2022). De Rosa and Iootty (2012) argue that resource-rich countries benefit optimally only when bolstered by strong, well-enforced institutions. Their findings underscore challenges such as corruption, conflict, and environmental degradation as major barriers to economic progress in the DRC.

Institutional quality plays a pivotal role in leveraging natural resources for economic growth. Substandard institutional practices detrimentally impact the DRC's economy (Medase et al., 2023; Tshinu, 2022; Afolabi, 2023). Strong institutions can effectively guide resource utilization towards sustainable economic activities (Sala-i-Martin & Subramanian, 2013; Olaniyi & Oladeji, 2021). However, inconsistent resource management, due to weak institutional frameworks, has long destabilized the DRC's economy (Asiamah et al., 2022; Ongo Nkoa & Song, 2022; Mlambo, 2022).

Mismanagement, corruption, weak institutions, and conflict contribute significantly to the DRC's economic underperformance despite its vast resources. Corruption notably undermines economic growth, supported by studies like Zallé (2022) and Rahmé and Walsh (2022). Mulowayi and Pinshi (2023) highlight that GDP per capita fluctuations in many African nations correlate with high corruption and inequitable distribution of natural resource revenues, impeding savings and capital accumulation. Institutional challenges such as corruption, lack of rule of law, and injustice exacerbate the resource curse in the DRC (Staines & Villafuerte, 2022).

Addressing the resource curse necessitates investments in human capital and robust institutional frameworks in the DRC. Development in resource-rich nations hinges on utilizing mineral revenues prudently for infrastructure, social services, and sectors like health and education (Raghupathi & Raghupathi, 2020). Such investments can alleviate poverty, reduce inequality, and enhance living standards.

Institutional quality is crucial for effectively managing natural resources and fostering overall economic stability. Establishing strong institutions, encompassing effective governance, corruption control, legal frameworks, political stability, and regulatory oversight, creates an environment conducive to investment and sustainable economic growth (Aziz, 2018; Brander et al., 2017). Robust institutions are essential for achieving high living standards, low poverty rates, minimal unemployment, and economic sustainability (Acemoglu, D., & Robinson, J. A., 2012).

While extensive research has scrutinized the benefits of DRC's resources (Tshinu, 2022; Rapanyane, 2022; Kalombo, 2022; Galli et al., 2022), less attention has been given to the role of institutional quality in shaping natural resource management and economic growth. Further research is needed to fully grasp the impact of institutional quality and to identify specific challenges hindering economic activities despite abundant natural resources. This study aims to investigate the interplay between mineral resources and institutional quality in the DRC's economic growth. By addressing identified gaps, this study offers evidence-based recommendations to policymakers and stakeholders for promoting sustainable and equitable economic growth in the DRC. It provides a comprehensive analysis of the DRC's economy through the lenses of mineral resources and institutional quality.

The structure of this paper is as follows: the next section reviews the literature, followed by the research methodology. Subsequently, the results and discussions are presented, with the final section dedicated to conclusions and recommendations.

Literature Review
Resource Curse Theory and Economic Growth
The resource curse theory suggests that countries abundant in natural resources often experience slower economic growth. Poor institutional quality and excessive reliance on resource revenues can hinder the development of other sectors, foster illegal activities, and ultimately undermine the nation's economy (Ross, 1999; Sachs & Warner, 2001). For example, countries with weak institutions may struggle to manage their resource wealth effectively, leading to corruption, rent-seeking behavior, and inefficient resource allocation. These issues divert attention and investment away from critical sectors like education,

healthcare, and infrastructure, which are vital for sustainable economic development.

Moreover, the influx of revenue from resource extraction can trigger "Dutch disease," where the national currency appreciates, reducing the competitiveness of other exports on the global market and weakening non-resource sectors further (Van der Ploeg (2011). This over-reliance on natural resources exposes economies to volatile commodity prices, leading to economic instability and diminished long-term growth prospects (Frankel, J. A, 2010).

Conversely, the theory also argues that countries with strong institutions can effectively harness natural resources to promote economic growth. Robust institutions can implement policies ensuring transparent and efficient management of resource revenues, investing in infrastructure, education, and technology to diversify the economy and reduce dependence on resource rents. For instance, countries like Norway have successfully utilized their natural resource wealth by establishing sovereign wealth funds that invest across various sectors, thereby stimulating economic growth and ensuring financial stability for future generations (Acemoglu, D., & Robinson, J. A., 2012).

Furthermore, strong institutions can attract foreign investment by providing a stable and predictable business environment, enhancing the country's integration into the global economy (Rodrik, D., 2004). These investments can further stimulate growth by bringing in capital, technology, and expertise, contributing to a more diversified and resilient economic structure. Recent studies also suggest that effective governance and regulatory frameworks can mitigate the adverse effects of resource dependence, improving economic outcomes (Sachs, J. D., & Warner, A. M. 2001; Shinwari et al., 2023).

Thus, while the resource curse theory highlights the risks associated with natural resource abundance, it underscores the critical role of institutional quality in determining whether a country will suffer from or benefit from its natural wealth (Shinwari et al., 2023). By prioritizing the development of strong institutions and implementing sound economic policies, resource-rich countries can transform their natural endowments into a foundation for sustainable and inclusive growth.

Mineral Resources and Economic Growth

Resource-rich countries often grapple with the resource curse, prompting debates on mitigating this phenomenon. This theory posits that issues such as corruption, conflicts of interest, and Dutch disease—where over-reliance on mineral rents undermines other sectors—are prevalent in resource-rich nations (Marques & Pires, 2019). Dutch disease, particularly, leads to neglect of sectors like manufacturing, health, and education, posing economic challenges (Badeeb et al., 2017). Corruption and unequal resource allocation exacerbate these issues, causing economic instability and dissuading foreign investment (De Rosa & Iootty, 2012; Dramani et al., 2022).

Political elites often exploit resource revenues for personal gain, accelerating corruption and impeding economic progress (Knutsen et al., 2017; Zhan, 2017; Riyadi, 2020). Additionally, resource-rich countries are susceptible to various conflicts that disrupt economic activities (Conrad et al., 2019; Lessmann & Steinkraus, 2019). However, some nations have overcome the resource curse by establishing strong institutions that enable them to leverage their resources for economic growth (Collier, P., & Hoeffler, A., 2005).

Countries such as Norway, Finland, Kuwait, Oman, and Chile have effectively utilized their mineral resources to foster social and economic development, investing in education, health, and human capital (Australia, 2018; Ellefmo et al., 2019). These examples illustrate that with proper management and strong institutions, resource wealth can lead to economic prosperity (Lassila, 2018; Sun et al., 2018; Zeeshan et al., 2021). Abundant resources can also attract foreign direct investment, contributing to economic growth (Lu et al., 2020; Eissa & Elgammal, 2020). Countries with robust institutions can mitigate the resource curse and achieve economic development (Acemoglu, D., & Robinson, J. A., 2012).

Institutional Quality in Resource-Rich Countries

Institutional quality (IQ) plays a critical role in mediating the relationship between natural resources and economic growth. While some argue that IQ is not the primary determinant of economic development, substantial evidence suggests that good institutions can transform resource wealth into economic opportunities (Abdulahi et al., 2019; Hassan et al., 2019; Qiang & Jian, 2020). Indicators such as the rule of law, transparency, accountability, and regulatory quality are essential for investment and economic development (Kaufmann, Kraay, & Mastrorillo, 2010); Jianguo et al., 2022). Countries with strong institutions can overcome the resource curse and achieve sustainable economic growth (Adams et al., 2019; Asif et al., 2020). In contrast, countries with weak institutions and abundant resources, like the

Democratic Republic of the Congo (DRC), often experience slower economic growth.

Mineral Resources and DRC Economic Growth

The impact of mineral resources on the DRC's economy remains a contentious issue. Some researchers argue that mineral revenues have effectively financed economic activities, boosting the economy (Narice, 2023). Others contend that these resources have not significantly contributed to economic progress, aligning with the resource curse theory. Corruption, conflicts, and environmental degradation have hindered the DRC's economic development (Sovacool, 2019). Improving institutional quality is crucial for the DRC to bridge the gap between natural resources and economic growth.

Role of Institutional Quality (IQ) in Mediating the Relationship Between Natural Resources and Economic Growth

Institutional quality significantly shapes a nation's economy, irrespective of its resource wealth. Good institutions—characterized by the rule of law, control of corruption, government effectiveness, and political stability—drive economic productivity (Shirley, 2005; Ren et al., 2022). Poor institutional quality, on the other hand, can lead to economic decline (Qiang & Jian, 2020). Research supports that IQ mediates the relationship between natural resources and economic growth. Strong institutions enable countries to effectively utilize mineral revenues, fostering sustainable economic growth (Asamoah et al., 2019; Ibrahim & Ajide, 2021). Quality institutions also attract foreign investment and diversify economic activities, enhancing economic stability and growth (Kayode-Ajala, 2023; Gustafsson & Scurrah, 2019). Therefore, institutional quality plays a pivotal role in determining whether resource-rich countries can overcome the resource curse and achieve sustainable economic growth. For the DRC, improving institutional quality is essential to harness its vast mineral wealth for economic development.

Research Method

This study investigates the impact of mineral resources and institutional quality on economic growth in the Democratic Republic of the Congo (DRC). It examines institutional quality and resource curse theories, human capital, various economic drivers, and mineral rents as indicators of mineral resources. Given the long-term focus on a single country, the study utilizes time series data. Eleven variables are used to measure these indicators, with economic growth proxied by Real Gross Domestic Product (RGDP), denoted as "EC." The independent variables include government expenditure on education (GEE), government expenditure on health (GEH), inflation rate (INF), mineral rent (MRR), oil rent (OLR), political instability (PSA), forest rent (FOR), foreign direct investment (FDI), conflict (CON), and control of corruption (COC). Data for these variables were sourced from the World Bank Database, covering a period of thirty-eight years from 1985 to 2022.

To achieve its objectives, the study employs several econometric tests. Pre-estimation tests, including summary descriptive, matrix correlation, unit root, and cointegration tests, are used to assess the status of the series employed in the study. The main objective is then addressed through regression analysis. Post-estimation tests, such as heteroskedasticity, serial correlation, and Ramsey reset tests, are conducted to validate the regression results.

Regression analysis is particularly suitable for this study as it enables the simultaneous investigation of multiple variables, offering a comprehensive understanding of their impacts (Ciulla & D'Amico, 2019). Furthermore, Kumari and Yadav (2018) emphasize the relevance of regression methods in examining the reliability and influence of various independent variables on the dependent variable through their coefficients and the significance levels of each variable in the model.

The model specification for this study follows the standard econometric model, with the equation stated as eqaution (1).

$$EC = a_0 + a_1(GEE)_t + a_2(GEH)_t + a_3(INF)_t + a_4(MRR)_t + a_5(OLR)_t + a_6(PSA)_t + a_7(FOR)_t + a_8(FDI)_t + a_9(CON)_t + a_{10}(COC)_t + e_t \qquad (1)$$

Where a_0 is a constant, a_1 - a_{10} are the coefficients of independent variables, t is the year, and e is the error.

Result and Discussion

The descriptive findings in Table 1 indicate that the average GDP is 2.69, with other independent variables reflecting their respective mean levels. Median values, closely aligned with the means, suggest a balanced distribution across the series. Thirty-eight observations were analyzed, and the maximum, mean,

and skewness values for all variables fell within expected ranges.

The correlation matrix in Table 2 confirms anticipated relationships among variables, supporting their suitability for further analysis. All eleven variables underwent Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests. Six variables (EC, GEE, INF, FDI, CON, and COC) showed stationarity at the level, while the remaining five (GEH, MRR, OLR, PSA, and FOR) were stationary at first difference. This implies that all variables are appropriate for subsequent statistical calculations, detailed in Table 3.

Given the non-stationarity of some variables, a cointegration test was crucial to establish long-run relationships with GDP and avoid spurious regression. The results in Table 4 confirm cointegration, supported by significant p-values from both trace and eigenvalue tests across all variables, affirming their suitability for further analysis.

Table 1. Descriptive statistics

	EC	GEE	GEH	INF	MRR	OLR	PSA	FOR	FDI	CON	COC
Mean	2.69	0.13	0.25	922.18	0.26	0.083	-2.22	1.17	2.52	0.58	-1.45
Median	2.67	0.12	0.20	19.31	0.54	0.15	-2.22	1.22	1.64	1.00	-1.46
Maximum	2.99	0.43	0.66	23773.13	1.46	0.45	-0.80	1.53	12.72	1.00	-0.78
Minimum	2.51	-0.14	0.02	0.74	-1.11	-0.51	-2.85	0.67	-1.30	0.00	-1.65
Std. Dev.	0.15	0.15	0.23	3888.90	0.72	0.27	0.37	0.22	3.34	0.50	0.15
Skewness	0.95	0.19	0.57	5.56	-0.43	-0.71	1.43	-0.29	1.49	-0.32	2.63
Kurtosis	2.84	2.07	1.79	33.11	1.78	2.58	7.16	2.37	4.71	1.10	13.13
Jarque-Bera	5.72	1.62	4.36	1631.04	3.60	3.50	40.33	1.15	18.68	6.35	206.33
Probability	0.05	0.44	0.11	0.00	0.17	0.17	0.00	0.56	0.00	0.04	0.00
Sum	102.10	4.76	9.56	35042.68	9.75	3.16	-84.20	44.62	95.92	22.00	-55.22
Sum Sq. Dev.	0.78	0.84	1.94	5.60	19.31	2.74	4.99	1.72	412.18	9.26	0.79
Observations	38	38	38	38	38	38	38	38	38	38	38

Table 5 reveals that GEE has a negative and significant impact on EC, while GEH shows a positive but statistically insignificant impact on the dependent variable. INF demonstrates a negative but statistically insignificant effect on EC. MRR has a statistically significant positive impact EC, whereas OLR indicates a negative and statistically significant effect. The variables PSA, FOR, FDI, CON, and COC all negatively affect EC with insignificant values.

According to Kaufman (2013), post-estimation tests such as heteroskedasticity should be conducted to ascertain its presence or absence in the model. This study examines whether heteroskedasticity is present in the model residuals. The results show no evidence of heteroskedasticity, with an F-statistic of 0.786218 and a p-value of 0.6418. Thus, the study concludes that there is no heteroskedasticity in the regression residuals.

The serial correlation test is prioritized to validate the regression outcome. Flatt and Jacobs (2019) suggest conducting this test to avoid model misspecification or misdirection. The test results confirm no serial correlation in the regression model, based on the Breusch-Godfrey Serial Correlation test result with an F-statistic of 0.407502 and a p-value of 0.6696. These results indicate no evidence of serial correlation in the model.

To confirm the adequacy, omission, or misspecification of the regression model, a Ramsey RESET test is necessary, as suggested by Pagan and Hall (1983). The test results reveal no omission or misspecification in the model, with an F-statistic of 0.9153 and a probability value of 0.3475. as shown in Table 6.

The findings from the study present a nuanced picture of the economic dynamics in the Democratic Republic of the Congo, particularly concerning government expenditure, inflation, natural resource rents, and institutional quality. A critical analysis of these results sheds light on the complex interplay of these factors and their overall impact on economic growth.

Firstly, the study reveals that government expenditure on education has a negative and insignificant impact on the economy, suggesting that such spending does not contribute positively to economic growth. This finding is consistent with Kabundi (2019), who also found a negative effect of

government education spending on the economy. This could indicate inefficiencies in the education sector, possibly due to misallocation of funds, poor quality of education, or systemic issues that prevent educational investments from translating into economic gains. This challenges the conventional wisdom that education spending is inherently beneficial for economic growth and suggests a need for reforms to ensure that educational expenditures are more effectively utilized.

Table 2. Correlation matrix

	EC	GEE	GEH	INF	MRR	OLR	PSA	FOR	FDI	CON	COC
EC	1.000										

GEE	-0.500	1.000									
	0.001	-----									
GEH	-0.265	0.949	1.000								
	0.107	0.000	-----								
INF	0.033	-0.202	-0.217	1.000							
	0.840	0.223	0.189	-----							
MRR	0.415	0.389	0.5791	-0.255	1.000						
	0.009	0.015	0.000	0.121	-----						
OLR	-0.222	-0.383	-0.498	0.029	-0.181	1.000					
	0.179	0.017	0.001	0.860	0.274	-----					
PSA	0.007	0.580	0.677	-0.222	0.560	-0.392	1.000				
	0.962	0.000	0.000	0.179	0.000	0.014	-----				
FOR	-0.576	0.002	-0.158	0.112	-0.433	0.453	-0.548	1.000			
	0.000	0.986	0.340	0.500	0.006	0.004	0.000	-----			
FDI	-0.392	0.508	0.511	-0.181	0.334	0.197	0.303	0.132	1.000		
	0.014	0.001	0.001	0.275	0.040	0.233	0.063	0.427	-----		
CON	-0.567	0.566	0.464	-0.254	-0.154	-0.293	0.226	0.187	0.144	1.000	
	0.000	0.000	0.003	0.123	0.355	0.074	0.170	0.259	0.386	-----	
COC	-0.112	0.401	0.481	-0.235	0.340	-0.281	0.608	-0.251	0.349	0.224	1.000
	0.501	0.012	0.002	0.155	0.036	0.086	0.000	0.127	0.031	0.175	-----

Table 3. Unit root test

	Augmented Dickey-Fuller				**Philip Perron**		
Variables	**t-statistics**	**P-value**	**Order of integration**	**Variables**	**t-statistics**	**P-value**	**Order of integration**
EC	-4.564	0.005	1(0)	EC	-4.803	0.002	1(0)
GEE	-3.516	0.057	1(0)	GEE	-4.910	0.001	1(0)
GEH	-7.297	0.000	1(1)	GEH	-8.691	0.000	1(1)
INF	-755.09	0.000	1(0)	INF	-5.668	0.000	1(0)
MRR	-5.366	0.000	1(1)	MRR	-5.354	0.000	1(1)
OLR	-9.142	0.000	1(1)	OLR	-22.236	0.000	1(1)
PSA	-4.504	0.005	1(1)	PSA	-4.289	0.008	1(1)
FOR	-7.327	0.000	1(1)	FOR	-14.818	0.000	1(1)
FDI	-4.818	0.002	1(0)	FDI	-5.098	0.000	1(0)
CON	-3.688	0.035	1(0)	CON	-3.716	0.033	1(0)
COC	-3.660	0.039	1(0)	COC	-3.878	0.023	1(0)

In contrast, government expenditure on health (GEH) shows a positive but insignificant effect, implying that spending on health slightly enhances the DRC's economy. This finding aligns with Okombi (2018), who identified a positive relationship between government health expenditure and economic growth in the Congo. Although the impact is not statistically significant, the positive sign indicates potential benefits from health investments, suggesting that improvements in public health can enhance economic productivity by improving the overall well-being and efficiency of the labor force. However, the lack of significance suggests that current health spending levels or methods may not be sufficient to drive substantial economic growth.

Table 4. Cointegration rank test

Variables	Eigenvalue value	Trace Statistic	Prob.
EC	0.993	634.413	0.000
GDP	0.987	452.371	0.000
GEE	0.872	295.351	0.000
GEH	0.781	221.081	0.000
INF	0.761	166.247	0.000
MRR	0.682	114.676	0.001
OLR	0.466	73.418	0.025
PSA	0.453	50.772	0.025
FOR	0.383	29.003	0.061
FDI	0.260	11.575	0.178
CON	0.019	0.695	0.404

Table 5. Regression results

Variable	Coefficient	Std. Error	t-statistic	Prob.
GEE	-1.068	0.297	-3.594	0.001
GEH	0.347	0.2638	1.316	0.198
INF	-0.000	-0.000	-0.064	0.948
MRR	0.103	0.026	3.872	0.000
OLR	-0.141	0.065	-2.146	0.041
PSA	-0.034	0.046	-0.744	0.462
FOR	-0.123	0.068	-1.796	0.083
FDI	-0.005	0.004	-1.330	0.194
CON	-0.028	0.026	-1.074	0.292
COC	-0.107	0.079	-1.358	0.185
C	2.660	0.121	21.904	0.000

R-squared	0.904	Mean dependent var	2.686
Adjusted R-squared	0.868	S.D. dependent var	0.144
S.E. of regression	0.052	Akaike info criterion	-2.817
Sum squared resid	0.074	Schwarz criterion	-2.343
Log likelihood	64.525	Hannan-Quinn criterion.	-2.648
F-statistic	25.446	Durbin-Watson stat	1.646
Prob(F-statistic)	0.000		

Inflation has a negative impact on GDP, indicating that inflation adversely affects the economy. Christian (2023) supports this by noting that inflation often undermines national spending. High inflation erodes purchasing power, destabilizes the economy, and introduces uncertainty, which can deter investment and disrupt economic planning. This highlights the crucial role of effective monetary policies in controlling inflation and stabilizing the economy.

On the positive side, mineral rents significantly impact GDP positively, underscoring their beneficial role in the DRC's economy. This finding supports Ampofo et al. (2020), indicating that natural resource rents contribute positively to GDP. The significant influence of mineral rents suggests that effectively managing the DRC's abundant mineral resources could substantially drive economic growth. However, concerns arise regarding the sustainability and equitable distribution of revenues derived from these resources.

Conversely, oil rents negatively and significantly affect economic activities, suggesting that oil revenues do not benefit the economy. Titeca and Edmond (2019) similarly noted adverse effects of oil rents, attributing them to political instability and corruption. This situation reflects a resource curse scenario where oil wealth leads to economic distortions, governance challenges, and vulnerability to volatile commodity prices. The substantial negative impact of oil rents underscores the need for diversified economic strategies and improved governance to mitigate dependency and its adverse economic effects (Nichols, 2018; Titeca & Edmond, 2019; Tshinu, 2022).

Political instability and control of corruption also negatively impact economic growth. Research by Keefer and Knack (1997) empirically links political instability and corruption to prolonged poverty, emphasizing that without improved institutional quality, economic development remains constrained. These findings underscore the critical role of political stability and effective governance in fostering sustainable economic growth. Addressing political instability and corruption is crucial for creating an environment conducive to long-term growth and attracting investment (Titeca & Edmond, 2019; Tshinu, 2022).

Table 6. Ramsey RESET test

	Value	df	Probability
t-statistic	0.956	26	0.347
F-statistic	0.915	(1. 26)	0.347
Likelihood ratio	1.314	1	0.251
	Sum of Sq.	df	Mean Squares
Test SSR	0.002	1	0.002
Restricted SSR	0.074	27	0.002
Unrestricted SSR	0.072	26	0.002
LR test summary:			
	Value	df	
Restricted LogL	64.525	27	
Unrestricted LogL	65.182	26	

Furthermore, forest rents have a negative impact on GDP, likely influenced by high corruption levels. Mismanagement and illegal exploitation of forest resources contribute to this negative effect. Similarly, FDI negatively affects the economy, consistent with findings by Banzouzi et al. (2022), suggesting that FDI, when not aligned with national interests or appropriately regulated, may fail to generate anticipated economic benefits and could exacerbate existing economic challenges.

Finally, conflict negatively impacts the economy, aligning with Ogunnoiki's (2019) observation that conflicts have long hindered economic progress in the DRC. Persistent conflict disrupts economic activities, discourages investment, and redirects resources from productive uses to security and reconstruction efforts.

This study portrays a nuanced view of the DRC's economic landscape, where natural resource wealth, governance quality, and institutional strength are pivotal. While mineral rents show promise for economic advancement, the negative impacts of oil rents, political instability, corruption, forest mismanagement, foreign investment dynamics, and conflict underscore significant challenges. Addressing these issues through enhanced governance, sustainable resource management, and political stability is essential to harnessing the DRC's resource wealth for sustainable economic development.

Conclusions, suggestions and limitations

This study investigates whether the Democratic Republic of the Congo's (DRC) abundant mineral resources constitute a blessing or a curse by analyzing their impact alongside institutional quality, human capital, and economic growth. The findings indicate that government expenditures on education and health do not significantly benefit the economy, while inflation negatively affects economic activities. Furthermore, foreign direct investment (FDI), oil rents, forest rents, political instability, conflict, and corruption all exert negative impacts on GDP. Consequently, the study concludes that the DRC's natural resources present more of a curse than a blessing.

Based on these findings, it is recommended that the DRC enhances supervision and monitoring of government spending on education and health. Priority should also be given to improving the management of mineral resource revenues, bolstering political stability, and combating corruption to transform the resource curse into an economic blessing. Specifically, rigorous implementation of Chapter II of the United Nations Convention against Corruption (UNCAC) is advised, aiming to strengthen political commitment, reduce interference in governance, and depoliticize the judiciary to curb corruption effectively.

However, this study is not without limitations. Future research could undertake comparative analyses between the mining and non-mining sectors within the DRC. Additionally, comparative studies with other resource-rich nations could provide valuable insights for policymakers seeking to formulate more effective economic policies aimed at enhancing the DRC's economic prospects.

Competing Interests

The author(s) declare that there are no competing interests relevant to the content of this article.

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