



Oil Rent, Financial Remittances, and Banking Sector Development in Africa

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Abstract

This paper analyzes how oil rents and incoming financial remittances influence banking sector advancement within oil-producing African nations. By employing a selective purposive sampling approach, we evaluate the top ten (10) African oil economies that maintain a baseline daily output of at least 70,000 barrels per day (bpd). Utilizing an Autoregressive Distributed Lag (ARDL) cointegration framework, the empirical findings demonstrate that oil rents and financial remittances maintain both short-run and long-run cointegrating dynamics with banking sector growth. Specifically, over the long term, oil rents exert a statistically significant adverse impact on banking development, whereas financial remittances exhibit a significant positive effect. These results validate the presence of the resource curse among African oil exporters, indicating that resource windfalls have historically failed to stimulate financial institutional depth. Accordingly, this study recommends that these nations establish structural mechanisms to redirect resource rents into broader economic sectors to foster holistic financial market maturity.

Keywords: banking sector development, developing economies, financial development, oil rent, remittances.

JEL Classification: F24, G21, N27, O13, O16, Q35.

Introduction

While intuitive economic logic suggests that an abundance of natural resource wealth should naturally accelerate macroeconomic performance, historical precedents confirm this trend across only a handful of resource-rich nations. Empirically, extensive resource endowments frequently yield a negative impact on economic expansion (Erdogan, 2020), as many oil-dependent developing countries struggle to sustain long-term growth because dominant extractive industries tend to crowd out capital allocations toward non-oil sectors (Rizvi, 2019). Within these oil-exporting economies, institutional framework quality determines whether

resource windfalls successfully translate into sustainable growth (Soyyigit, 2019). A substantial body of empirical research highlights that resource-dependent economies regularly suffer from deficient financial infrastructure (Ezekwe et al., 2022; Asif et al., 2020; Canh and Thong, 2020). Consequently, building mature financial institutions offers a viable pathway to boost growth and escape the resource curse.

A structurally sound financial system is a core prerequisite for generating sustainable economic progress (Umar et al., 2017). Well-functioning financial sectors optimize domestic savings mobilization, streamline capital distribution, and mitigate transactional risks, thereby facilitating capital aggregation, improving cross-sector investment yields, and driving industrial innovation. Conversely, structural deficiencies or weaknesses within financial systems can inflict systemic institutional damage across the wider economy (Ramez and Hooi, 2017).

Simultaneously, the accelerating integration of developing economies into global financial markets has enhanced remittance delivery networks and expanded cross-border capital inflows. Financial globalization improves financial system architecture by expanding liquidity channels and upgrading transactional platforms (Bhattacharya, 2018). Migrant financial remittances now constitute the second-largest foreign capital inflow mechanism for developing nations, mitigating poverty levels while fostering sustainable macroeconomic expansion (Mehta et al., 2020).

These cross-border inflows provide vital transactional liquidity to domestic financial intermediaries, accelerating broader financial development (Sobiech, 2019). For context, financial data reveal that remittance flows to low- and middle-income territories expanded by roughly 5% to reach \$626 billion in 2022, with total worldwide volumes climbing to \$794 billion as geopolitical displacements, such as the Ukrainian crisis, drove sharp remittance spikes (WEF, 2023). Excluding China from these calculations confirms that international remittances represent the primary source of external funding across developing economies, surpassing both foreign direct investments (FDI) and official development assistance (WEF, 2023). Consequently, expanding the operational capacity of financial institutions in recipient countries is vital; steady remittance inflows supply deep liquidity pools that empower banks to support heightened levels of real economic enterprise.

In developing markets plagued by shallow credit accessibility, personal remittances serve as an invaluable alternative source of investment funding, functioning as a practical substitute for formal banking constraints and magnifying

growth outcomes (Das and McFarlane, 2021). Against this analytical backdrop, this study integrates oil rent metrics, cross-border remittance parameters, and financial market development into a singular empirical framework to map out their coordinated impacts on the development of the banking sector across Africa's primary oil-exporting economies.

Literature Review

The resource curse hypothesis establishes that nations dependent on resource extraction often experience slower growth trajectories and exhibit lower economic diversification compared to resource-scarce counterparts. Despite extensive scholarly debate surrounding the implication of this paradox globally, no consensus exists regarding optimal strategies for deploying natural resource rents. Historically, many resource-abundant nations display systemic inefficiencies in utilizing these windfalls effectively (Auty, 1993; Gylfason, 1999; Sarmidi, 2014). Early empirical foundations established by Sachs and Warner (1995) verified that resource-poor countries frequently outpace resource-rich nations in GDP growth. This paradox is further explained by Auty (1998), who notes that resource-endowed states often struggle to leverage commodity windfalls to build diversified, competitive economies. Concurrently, while certain studies demonstrate that consistent remittance inflows stimulate microeconomic investments (Woodruff and Zenteno, 2007; Giuliano and Ruiz-Arranz, 2009) and reduce poverty (Akobeng, 2016; Majeed, 2015; Adams and Cuecuecha, 2013), counterarguments suggest they can also depress labor supply motivations (Chami et al., 2005), generate moral hazards (Gubert, 2002), fuel domestic inflation (Khan and Islam, 2013), and induce Dutch disease disruptions (Amuedo-Dorantes et al., 2010).

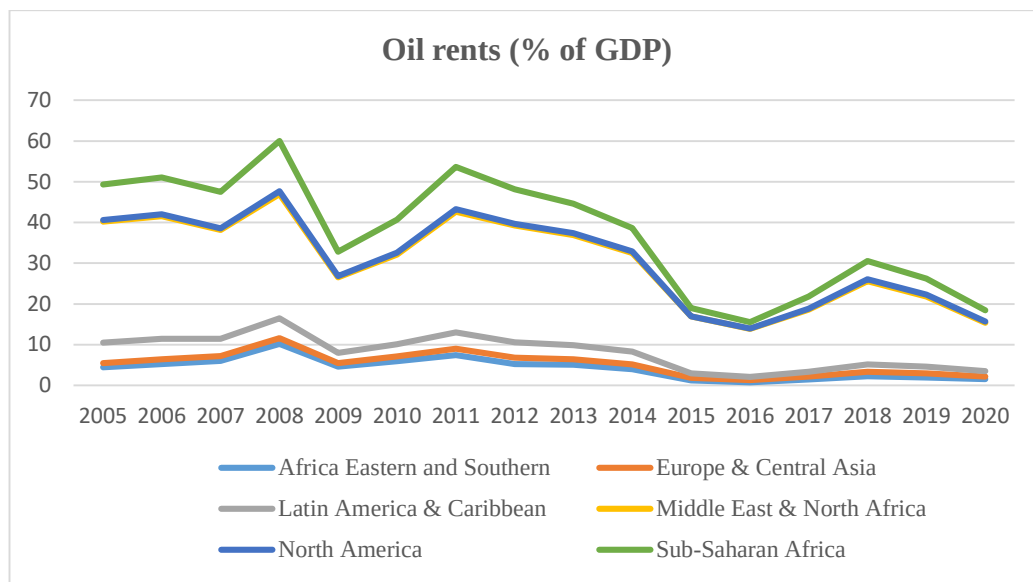


Figure 1. Oil Rent for Various Regions

Source: Research findings.

Historical data from Figure 1 highlight that Sub-Saharan Africa maintains prominent oil rent profiles quantified as the premium between crude oil valuation at prevailing market rates and total extraction costs. Unfortunately, high dependency on these resource streams correlates directly with depressed financial sector depth, which is a core tenet of the financial resource curse (Ezekwe et al., 2022).

Scholarly investigation into the direct intersection of oil rents and financial sector development remains divided. While several investigations show that resource windfalls can act as a catalyst for financial infrastructure development (Javadi et al., 2017; Ilo et al., 2018; Shahbaz et al., 2018; Dwumfour and Ntow-Gyamfi, 2018; Zaidi et al., 2019; Mlachila and Ouedraogo, 2020; Atil et al., 2020), an equally compelling body of literature identifies clear negative interactions (Khan et al., 2020; Asif et al., 2020; Dogan et al., 2020). Narayan and Sharma (2011) demonstrate that these outcomes shift based on sectoral focus, while Phan et al. (2015) find discrepancies depending on whether a country is a net oil producer or consumer. Furthermore, Arouri and Rault (2011) observe a positive correlation between oil price shocks and equity market returns within major oil-exporting jurisdictions.

Focusing on the Emerging Seven (E-7) economies from 1990 to 2017, Sun et al. (2020) show that resource rents negatively impact financial development

indices, verifying the validity of the resource curse paradigm within those territories. Conversely, Bagudo and Adekunle (2019) challenge traditional assertions by Beck (2011) regarding the structurally low financial depth of oil-exporting states; their Nigerian case study highlights a non-linear, U-shaped relationship where oil rents initially hinder but eventually support financial development. This non-linear dynamic is supported by Anser et al. (2021), who note a U-shaped pattern in private sector credit volatility amidst oil shocks and pandemic recessions, validating an initial financial resource curse phase.

Using system GMM dynamic panel estimations across 25 Sub-Saharan African economies from 1997 to 2014, Aluko and Ajayi (2018) prove that institutional quality, population density, and trade openness positively increase banking sector depth. Meanwhile, Guan et al. (2020) emphasize the long-run cointegration of resource rents, globalization, and human capital with Chinese financial sector trajectories.

Further empirical investigations by Khan et al. (2020) across 87 emerging and developing economies show that resource rents suppress financial sector maturation, though institutional quality acts as a vital positive moderator. Zameer et al. (2020) map out the regional coordination of resource abundance and ecological efficiency in China, proving that resource-rich central and western provinces display lower resource efficiency compared to resource-scarce eastern zones, underscoring the vulnerabilities of resource over-reliance.

In Pakistan, Atil et al. (2020) treat natural resource abundance as a structural blessing that expands domestic demand for financial services. This long-term positive effect is supported by Yildirim et al. (2020) across 16 developing nations, though they highlight that resource rents remain statistically neutral over short-run horizons.

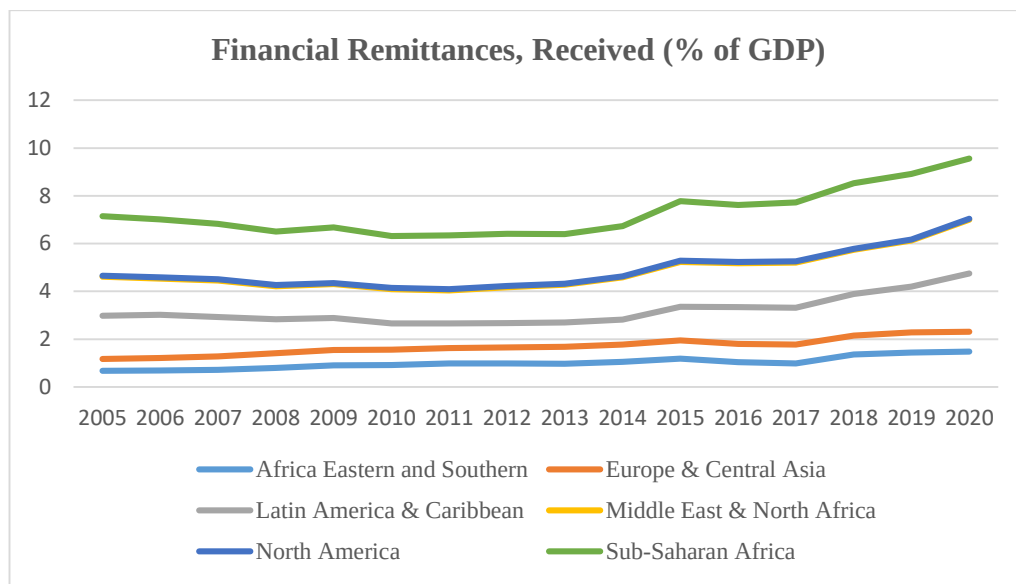


Figure 2. Financial Remittances for Various Regions

Source: Research findings.

Regarding remittance dynamics as reported in Figure 2, Sub-Saharan Africa remains a primary recipient globally. Total recorded remittances to developing regions expanded from \$145 billion in 2006 to \$441 billion in 2016, ultimately reaching \$589 billion by 2021, with Sub-Saharan Africa drawing \$45 billion of that share (World Bank, 2021). These steady capital flows help integrate recipient households into formal financial architectures, encouraging the usage of commercial banking systems for savings, transfers, and asset management (Gupta et al., 2009; Demircuc-Kunt et al., 2011; Aggarwal et al., 2011).

Empirical findings on remittances show a mix of positive and substitution dynamics. Hamma (2017) notes that within the MENA region, remittances foster expansion when backed by mature institutional frameworks, aligned with Issahaku (2019), who links workers' remittances to enhanced financial depth. Robust bidirectional links are confirmed by Fromentin (2018) in Latin America and Kakhkharov and Rohde (2020) in transition states. Long-run positive relationships are also supported by Misati et al. (2019), Deonanan et al. (2020), Ahmad et al. (2019), and Das and McFarlane (2022) with the latter group identifying an initial threshold effect where the negative impacts of remittances transform into positive contributions over time.

Micro-level data from Nigeria analyzed by Ajefu and Ogebe (2019) confirm that regular remittance receipts significantly increase household adoption of

deposit accounts and mobile banking platforms. Shijun and Sung (2020) use dynamic panel GMM across 29 transition states to reveal that while remittances accelerate growth, they often act as a substitute for formal financial system depth.

Suman et al. (2022) prove that across the BRICS bloc, remittances maintain a positive long-run cointegration with bank deposits, despite exhibiting short-run neutrality. Conversely, Kacou et al. (2022) utilize a panel VAR model across 22 Sub-Saharan African economies to show that migrant remittances can sometimes negatively interact with financial inclusion indices, even though established financial inclusion structures positively draw in wider remittance flows.

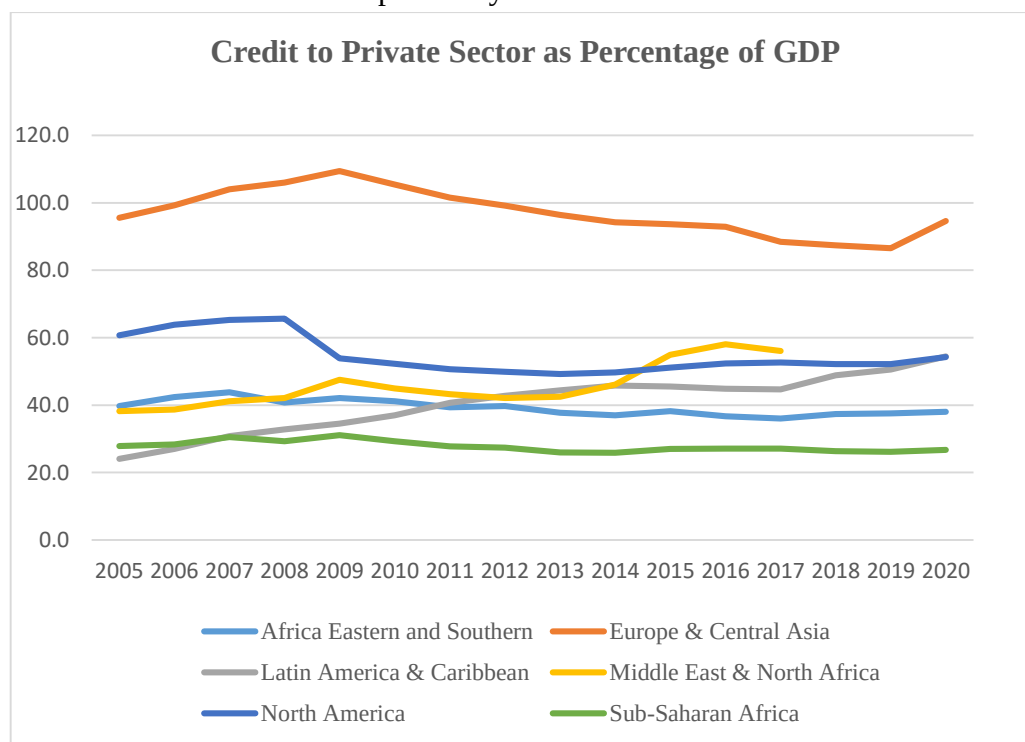


Figure 3. Credit to Private Sector for Various Regions

Source: Research findings.

Figure 3 above shows that credit to the private sector (CPS) has expanded across Africa, but it lags behind other developing regions. Because CPS accurately captures the actual volume of credit distributed to private enterprises, it serves as an excellent metric for evaluating real banking intermediary activity (Bakwena and Bodman, 2010). The persistent stagnation of financial depth despite high oil revenues and remittance flows points to a potential financial resource curse, which warrants this regional investigation.

Methodology and Data

Building on the structural frameworks established by Ilo et al. (2018) and Mehta et al. (2021), this study analyzes banking sector development by utilizing credit to the private sector as a percentage of GDP as our primary proxy variable. The dataset encompasses annual macro-level observations spanning from 1981 to 2021 extracted from the World Development Indicators (WDI) database.

The population for this study consists of all oil producing countries in Africa. As of May 2022, there are eighteen (18) countries in Africa currently recognized as oil-producing countries while only seven (7) are members of the Organization of Petroleum Exporting Countries (OPEC) out of the total of thirteen (13) members of OPEC (OPEC, 2022). Using a purposive sampling technique, this study selected the top ten (10) countries in Africa based on reported minimum daily production of 70,000 barrels per day (bpd). These countries include Nigeria, with over 1.27 million barrels per day, Angola, Algeria, Chad, Egypt, Equatorial Guinea, Gabon, Ghana, Libya and Republic of Congo with the least production at 70,000 barrels per day as at 2021. These countries are also members of the Organization of Petroleum Exporting Countries, except for Chad, Egypt, and Ghana.

The foundational functional relationship evaluates the impact of oil rents and financial remittances on financial market architecture:

$$BSD_{it} = f(OILR_{it}, FINR_{it}) \quad (1)$$

Using credit to the private sector (CPS) to measure banking sector depth, the model is specified as follows:

$$CPS_{it} = f(OILR, FINR, GCFC, FDI, TOT) \quad (2)$$

$$CPS_{it} = (\alpha_0 + \beta_1 OILR_{it} + \beta_2 FINR_{it} + \beta_3 GCFC_{it} + \beta_4 FDI_{it} + \beta_5 TOT_{it} + U_{it}) \quad (3)$$

where

BSD= Banking sector development

$OILR_{it}$ = Oil rent as a ratio of GDP for country i at time t

$FINR_{it}$: Financial Remittances as a ratio of GDP for country i at time t

CPS_{it} = Credit to the Private Sector as a ratio of GDP for country i at time t

$GCFC_{it}$ = Gross Fixed Capital Formation as a ratio of GDP for country i at time t

FDI_{it} = Foreign Direct Investment as a control variable for country i at time t

TOT_{it} = Trade Openness as a control variable for country i at time t

α = Intercept

$\alpha_1 - \alpha_6$ = Coefficient of the Independent Variables.

U = Disturbance Term at time t

Furthermore, pre-estimation tests were also carried out to check for autocorrelation and multicollinearity among the explanatory variables. Also, the panel unit root test was used to check whether the variables are stationary or not, thus this study employed Levin, Lin and Chu, ADF-Fisher Chi-square and PP - Fisher Chi-square with the aid of EViews 9. The study then used the autoregressive distributed lag-bounds testing procedure given its flexibility in the order of integration of variables: they can be I(1), I(0) or I(1)/I(0). Monte Carlo analysis confirms that this ARDL bounds approach offers superior statistical performance for small sample distributions compared to traditional cointegration methods (Pesaran and Shin, 1999).

Results and Discussion

Table 1. Descriptive Statistics of Variables

DESCRIPTOR	OILR	FINR	CPS	FDI	TOT	GCFC
Mean	18.8386	1.3107	14.2854	4.1794	63.0626	22.2644
Median	15.8259	0.1065	11.1095	1.5576	61.1341	22.0320
Maximum	66.6847	14.5833	69.2841	161.8238	156.8618	89.3861
Minimum	0.0000	-1.9577	0.0000	-18.9177	0.0000	0.0000
Std. Dev.	15.8643	2.6050	13.2418	12.0364	36.9749	14.6923
Skewness	0.7638	2.3062	1.9297	7.5862	0.10690	0.90397
Kurtosis	2.8939	8.1046	7.2920	83.9843	2.4921	5.5214
Jarque-Bera	40.0606	806.6204	569.1847	115973.1	5.0726	164.4433
Probability	0.0000	0.0000	0.0000	0.0000	0.0791	0.0000
Obs.	410	410	410	410	410	410

Source: Research findings, based on data from WDI (2023).

Note: All figures are in ratio of Gross Domestic Product (GDP).

The summary statistics in Table 1 reveal positive mean values across all examined indicators (OILR- 18.8%, FINR-1.31%, CPS-14.28%, FDI-4.17%, TOT-63.06% and GCFC-22.26%) respectively. Trade openness (TOT) displays the highest average value, followed sequentially by GFCF, OILR, and CPS. Similarly, it is also obvious that the inflow from oil rent (OILR) covers about 18% of the gross domestic product of African countries selected for this study while financial remittances (FINR) only accounted for 1.3% of the GDP of the oil exporting countries selected under this study.

A further review of the median of the variables suggests that most of the variables are symmetrically distributed given that their values are close to the mean value except for FDI, which recorded a relatively large difference. Additionally, the minimum and maximum change ranges from positive to positive in all cases except for FINR and FDI, which range from negative to positive values. It implies

that there may be instances where there are no changes at all or where changes are zero. This also suggests that there are fewer outliers in the data set used for this study.

A comparison of the mean and median values indicates that most variables exhibit relatively symmetric distributions, as their central tendency measures are closely aligned. The exception is foreign direct investment (FDI), which shows a wider divergence between its mean and median, suggesting greater dispersion. Furthermore, the observed minimum and maximum values are generally positive across the variables, with the exception of financial remittances (FINR) and FDI, whose values extend from negative to positive. This pattern indicates that these variables experienced periods of both declines and increases over the sample period, while some observations also recorded zero values. Overall, the distribution of the data suggests the presence of relatively few extreme observations.

The standard deviation estimates further reveal that trade openness (TOT) exhibits the greatest variability among the variables, with a value of 34, indicating that it experienced the highest level of fluctuation throughout the study period. In contrast, the remaining variables display comparatively lower levels of dispersion. The skewness statistics show that all variables are positively skewed, implying distributions with longer right tails. Based on the kurtosis values, only oil rent (OILR) and trade openness (TOT) are platykurtic, as their kurtosis values are below three, indicating flatter distributions with fewer extreme observations than a normal distribution. The remaining variables are leptokurtic, reflecting more peaked distributions and a greater likelihood of extreme values. Finally, the Jarque–Bera test results indicate that normality is rejected at the 1% significance level for all variables except TOT. Consequently, the null hypothesis of normal distribution is rejected for most of the variables. The subsequent section presents the multicollinearity diagnostics and panel unit root test results.

Table 2. Multicollinearity Test

	CPS	OILR	FINR	FDI	TOT	GCFC
CPS	1					
OILR	-0.1727	1				
FINR	0.3463	-0.2820	1			
FDI	-0.1395	0.1257	-0.0829	1		
TOT	0.0011	0.3313	-0.1034	-0.1340	1	
GCFC	0.1020	-0.0080	0.0629	-0.1490	0.4008	1

Source: Research findings.

Table 2 presents the pairwise correlation coefficients among the variables included in the model. The results indicate that oil rent (OILR) and foreign direct investment (FDI) are negatively associated with credit to the private sector (CPS), with correlation coefficients of -0.1727 and -0.1395, respectively. In contrast, trade openness (TOT) and gross capital formation (GCFC) exhibit positive relationships with CPS. The strongest correlation is observed between TOT and GCFC (0.4008), which remains well below the commonly accepted threshold for multicollinearity. This suggests that the explanatory variables do not exhibit problematic linear dependence and can therefore be retained in the estimated model without concerns regarding multicollinearity.

Having established the absence of serious multicollinearity, the next stage of the analysis examined the time-series properties of the variables through panel unit root tests. Three complementary unit root procedures were employed to determine the order of integration and assess the stationarity of the variables. The results of these tests are reported in the following section.

Table 3. Panel Unit Root Test

	Levin et al.	Adf - Fisher Chi-Square	Pp - Fisher Chi-Square
OILR	-3.4851 (0.0002)*	41.7456(0.0030)*	41.1033 (0.0036)*
FINR	-2.5030 (0.0062)*	35.2708(0.0187)*	60.1118(0.0000)*
CPS	-1.96184 (0.0249) *	25.2898 (0.1906)	19.7036 (0.4766)
D(CPS)	-10.6034 (0.0000)*	133.0960 (0.000)*	221.8840 (0.0000)*
FDI	-3.23761 (0.0006)*	53.5955(0.0001)*	53.5955(0.0000)*
TOT	-1.6092 (0.0538)**	26.8189 (0.1404)	28.4265(0.0997)**
D(TOT)	-12.5906 (0.0000)*	163.729 (0.0000)*	269.554 (0.0000)*
GCFC	-2.4087 (0.0080)*	32.6425 (0.0369)*	34.4007 (0.0235)*

Source: Research findings.

Note: Probabilities for Fisher tests are computed using an asymptotic Chi –square distribution. All other tests assume asymptotic normality. * 5% and ** 10%.

As reported in Table 3, the panel unit root results indicate that the variables exhibit different orders of integration. Specifically, oil rent (OILR), financial remittances (FINR), and gross capital formation (GCFC) are stationary at levels, whereas credit to the private sector (CPS) and trade openness (TOT) attain stationarity after first differencing. These findings confirm that the variables are integrated of mixed orders, comprising both I(0) and I(1) series. Since none of the variables is integrated beyond the first order, the prerequisite for applying the Autoregressive Distributed Lag (ARDL) bounds testing approach is satisfied. Furthermore, the earlier multicollinearity diagnostics revealed no evidence of

serious collinearity among the explanatory variables, supporting the reliability of the estimated model. Consequently, the ARDL framework was employed to estimate both the short-run dynamics and long-run equilibrium relationships among the variables. To further establish the existence of a long-run association, the Johansen cointegration test was conducted, and the results are presented below.

Table 4. Johansen Cointegration Test

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**	Max- Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.0788	60.8476	29.7970	0.0000	30.3784	21.1316	0.0019
At most 1 *	0.0661	30.4692	15.4947	0.0001	25.3170	14.2646	0.0006
At most 2 *	0.0138	5.1522	3.8414	0.0232	5.1522	3.8414	0.0232

Source: Research findings.

Note: Trace test and Max-eigenvalue test indicate 2 cointegrating eqn(s) at the 0.05 level, * denotes rejection of the hypothesis at the 0.05 level, **MacKinnon-Haug-Michelis (1999) p-values.

Table 4 reports the results of the Johansen cointegration analysis based on both the Trace and Maximum Eigenvalue statistics. The Trace test identifies three cointegrating vectors, providing evidence of a stable long-run equilibrium relationship among the variables included in the model. The findings from the Johansen procedure therefore confirm that the variables move together over time despite their mixed orders of integration. Given this evidence of cointegration, the Autoregressive Distributed Lag (ARDL) modelling framework was subsequently adopted to estimate both the short-run dynamics and the long-run effects of oil rent and financial remittances on banking sector development in selected oil-exporting African countries.

Table 5. Short-Run Effect of Oil Rent and Financial Remittances on Banking Sector Development

Variable	Coefficient	Std. Error	t-Statistic	Prob.
COINTEQ(-1)	-0.169933	0.046673	-3.640922	0.0003*
D(CPS(-1))	0.172554	0.084106	2.051630	0.0412*
D(OILR)	-0.122855	0.077040	-1.594690	0.1120
D(OILR(-1))	0.111285	0.172739	0.644235	0.5200
D(FINR)	4.969397	8.053505	0.617048	0.5377
D(FINR(-1))	-0.961115	6.063797	-0.158501	0.8742
D(FDI)	0.264911	0.244609	1.082998	0.2798
D(FDI(-1))	0.004205	0.135689	0.030990	0.9753
D(TOT)	0.011038	0.046981	0.234941	0.8144
D(TOT(-1))	-0.133442	0.125718	-1.061443	0.2895
D(GCFC)	-0.019889	0.025217	-0.788717	0.4310
D(GCFC(-1))	0.098942	0.115807	0.854365	0.3937
C	0.584914	0.239603	2.441183	0.0153

Source: Research findings.

Table 5 presents the estimated short-run effects of oil rent and financial remittances on banking sector development. The error correction term, COINTEQ(-1), is negative and statistically significant at the 5% level, with a coefficient of -0.1699. This finding confirms the existence of a stable long-run equilibrium relationship among the variables and indicates that the model is correctly specified. The magnitude of the coefficient suggests that approximately 16% of any short-run deviation from the long-run equilibrium is corrected within one year, reflecting a moderate speed of adjustment toward equilibrium.

The lagged value of credit to the private sector (CPS), used as the proxy for banking sector development, is positive and statistically significant. This implies that improvements in banking sector development in the previous period exert a favourable influence on its current level, highlighting the persistence of financial sector development over time. Overall, the significance of the error correction mechanism provides evidence of a meaningful short-run relationship among the variables included in the model.

The present findings are consistent with the evidence reported by Ilo et al. (2018), who found that oil rent exerts a significant short-run influence on banking sector development in Nigeria. However, the results differ from those of Yıldırım et al. (2020), who concluded that natural resource rents do not significantly affect financial development in the short run. Likewise, Nwani et al. (2016) reported that

crude oil prices were positively associated with financial intermediary development only in the long run, with no statistically significant short-run effect.

Table 6. Long-Run Effect of Oil Rent and Financial Remittances on Banking Sector Development

Dependent Variable: D(CPS)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
OILR	-0.284143	0.090884	-3.126447	0.0020*
FINR	0.939353	0.275137	3.414128	0.0007*
FDI	0.077033	0.189269	0.407005	0.6843
TOT	0.175803	0.030001	5.859983	0.0000*
GCFC	0.014966	0.042781	0.349830	0.7267

Source: Research findings.

The long-run estimation results presented in Table 6 indicate that oil rent exerts a statistically significant negative influence on banking sector development in the sampled oil-exporting African economies. This finding suggests that greater dependence on oil-generated revenues weakens banking sector development over time, lending support to the resource curse hypothesis within the financial sector. The result is consistent with the findings of Javadi et al. (2017), Ramez et al. (2017), and Hooshmand et al. (2013), all of whom reported that oil rents adversely affect financial development and undermine the efficiency of financial markets. Similarly, Bagudo et al. (2018) found that oil rents constrain financial development in Nigeria, Africa's largest oil-producing economy.

One plausible explanation for this negative relationship is the institutional management of oil revenues across many African economies. Oil proceeds are typically received and administered by central governments through their respective central banks before being channelled into the economy via public expenditure, fiscal programmes, and development projects. Consequently, only a limited proportion of these revenues passes directly through the formal banking system, reducing their capacity to stimulate financial intermediation and deepen banking activities.

The findings also align with Elhannani et al. (2016), who argued that oil-dependent economies generally exhibit relatively low levels of financial development, making them more vulnerable to commodity price fluctuations and the adverse effects associated with the resource curse. Likewise, Javadi et al. (2017) attributed the negative impact of oil rents on financial development in developing economies to the predominance of government-led expenditure

financed by resource revenues. In contrast, developed resource-rich economies often retain a larger share of these revenues within domestic financial institutions or sovereign investment funds, thereby strengthening their financial systems. Furthermore, Moradbeigi and Law (2017) maintained that the growth effects of natural resource abundance depend largely on the maturity of a country's financial sector, with stronger financial institutions mitigating the adverse consequences of resource dependence.

However, the present findings differ from those reported by Yıldırım et al. (2020), who observed a positive long-run relationship between oil revenues and financial development. Similar positive effects were also documented by Atil et al. (2020), Guan et al. (2020), Zaidi et al. (2019), and Anees et al. (2019), suggesting that the influence of natural resource rents on financial development may vary across countries depending on institutional quality, governance structures, and the effectiveness of financial systems.

In contrast to the adverse effect of oil rent, financial remittances exert a positive and statistically significant influence on banking sector development in the long run. The estimated coefficient indicates that a 1% increase in remittance inflows is associated with approximately a 0.93% improvement in banking sector development, highlighting the important role of migrant transfers in promoting financial intermediation. This finding corroborates the evidence of Bhattacharya et al. (2018), who established a stable long-run relationship between remittances and financial development. Comparable conclusions were reached by Fromentin (2018) for Latin American economies, Kakhkharov and Rohde (2019) for transition economies, and Misati et al. (2019) for Kenya, all of whom reported that remittance inflows contribute positively to financial sector development over the long term.

The positive contribution of remittances may reflect the growing adoption of digital financial technologies and formal transfer channels, which have significantly reduced transaction costs and improved access to banking services. Mobile-based remittance platforms, in particular, minimise reliance on physical banking infrastructure while encouraging greater participation in the formal financial system. Overall, the empirical evidence confirms the existence of a stable long-run relationship between oil rent, financial remittances, and banking sector development in oil-exporting African countries

Conclusion

This study examined the effects of oil rent and financial remittances on banking sector development in selected oil-exporting African countries. The empirical findings provide evidence of both short-run and long-run relationships among the variables. In the long run, oil rent was found to exert a statistically significant negative effect on banking sector development, whereas financial remittances contributed positively and significantly to the development of the banking sector. These findings suggest that, despite the substantial revenues generated from oil resources, many oil-exporting African economies have not translated resource wealth into sustained financial sector development, thereby lending support to the resource curse hypothesis.

The adverse effect of oil rent may be attributed to the manner in which resource revenues are managed in many developing economies. In most oil-exporting African countries, oil proceeds are largely channelled through government expenditure and fiscal operations rather than directly through the formal financial system. Consequently, these revenues provide limited support for financial intermediation and banking sector deepening. By contrast, many developed resource-rich economies retain a larger proportion of resource revenues within domestic financial institutions or invest them through sovereign wealth mechanisms, thereby strengthening financial sector development.

Based on these findings, the study recommends that governments in oil-exporting African countries adopt more efficient and transparent resource revenue management strategies that promote financial sector development. Redirecting a greater share of oil windfalls toward productive investments, economic diversification, and private sector development could reduce excessive dependence on the resource sector while enhancing financial market depth and resilience. In addition, policymakers should implement measures that encourage migrants to utilize formal financial channels when transferring funds, as this would increase financial inclusion, expand banking activities, and strengthen the contribution of remittance inflows to financial sector development. Strengthening the institutional and regulatory environment to facilitate secure, affordable, and accessible remittance services would further enhance the developmental impact of these inflows on the banking system.

Statements and Declarations

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References

- Adams Jr, R. H., & Cuecuecha, A. (2013). The impact of remittances on investment and poverty in Ghana. *World Development*, 50, 24–40. Retrieved from <https://doi.org/10.1016/j.worlddev.2013.04.009>.
- Aggarwal, R., Demirgüç-Kunt, A., & Peria, M. S. M. (2011). Do remittances promote financial development? *Journal of Development Economics*, 96(2), 255–264. Retrieved from <https://doi.org/10.1016/j.jdeveco.2010.10.005>.
- Ajefu, J. B., & Ogebe, J. O. (2019). Migrant remittances and financial inclusion among households in Nigeria. *Oxford Development Studies*, 47(3), 319–335. Retrieved from <https://doi.org/10.1080/13600818.2019.1584263>.
- Akobeng, E. (2016). Out of inequality and poverty: Evidence for the effectiveness of remittances in Sub-Saharan Africa. *The Quarterly Review of Economics and Finance*, 60, 207–223. Retrieved from <https://doi.org/10.1016/j.qref.2015.10.008>.
- Amuedo-Dorantes, C., Pozo, S., & Vargas-Silva, C. (2010). Remittances in small island developing states. *The Journal of Development Studies*, 46(5), 941–960. Retrieved from <https://doi.org/10.1080/00220381003623881>.
- Anser, M. K., Khan, M. A., Zaman, K., Nassani, A. A., Askar, S. E., Abro, M. M. Q., & Kabbani, A. (2021). Financial development, oil resources, and environmental degradation in pandemic recession: to go down in flames. *Environmental Science and Pollution Research*, 28(43), 61554–61567. Retrieved from <https://doi.org/10.1007/s11356-021-15061-0>.
- Atil, A., Nawaz, K., Lahiani, A., & Roubaud, D. (2020). Are natural resources a blessing or a curse for financial development in Pakistan? The importance of oil prices, economic growth and economic globalization. *Resources Policy*, 67, 101683. Retrieved from <https://doi.org/10.1016/j.resourpol.2020.101683>.
- Auty, R. M. (1998). Resource abundance and economic development: Improving the performance of resource-rich countries. *UNU World Institute for Development Economics Research (UNU-WIDER), Research Paper*, 44, Retrieved from <https://www.wider.unu.edu/publication/resource-abundance-and-economic-development>.

- Badeeb, R. A., & Lean, H. H. (2017). Financial development, oil dependence and economic growth: Evidence from the Republic of Yemen. *Studies in Economics and Finance*, 34(2), 281–298. Retrieved from <https://doi.org/10.1108/SEF-07-2014-0137>.
- Bagudo, A., & Adekunle, W. (2019). Revisiting the nexus between oil rents and financial development in Nigeria: The threshold regression approach. *Journal of Research in National Development (JORIND)*, 17(2), 86–97. <https://www.transcampus.org/journals/index.php/jorind/article/view/308>.
- Bakwena, M., & Bodman, P. (2010). The role of financial development in natural resource abundant economies: Does the nature of the resource matter? *Botswana Journal of Economics*, 7(11), 16–31. Retrieved from <https://doi.org/10.4314/boje.v7i11.64201>.
- Beck, T. (2011). Finance and oil: Is there a resource curse in financial development? *European Banking Center, Discussion Paper*, 2011-004. Retrieved from <https://doi.org/10.2139/ssrn.1755106>.
- Bhattacharya, M., Inekwe, J., & Paramati, S. R. (2018). Remittances and financial development: Empirical evidence from heterogeneous panel of countries. *Applied Economics*, 50(38), 4099–4112. Retrieved from <https://doi.org/10.1080/00036846.2018.1440083>.
- Bindu, S., Sridharan, P., Swain, R. K., & Das, C. P. (2022). Causal linkage between remittances and financial development: Evidence from the BRICS (Brazil, Russia, India, China, and South Africa). *Journal of East-West Business*, 28(2), 117–149. Retrieved from <https://doi.org/10.1080/10669868.2021.2016541>.
- Canh, N. P., & Thong, N. T. (2020). Nexus between financialisation and natural resources rents: Empirical evidence in a global sample. *Resources Policy*, 66, 101590. Retrieved from <https://doi.org/10.1016/j.resourpol.2020.101590>.
- Cao, S., & Kang, S. J. (2020). Personal remittances and financial development for economic growth in economic transition countries. *International Economic Journal*, 34(3), 472–492. Retrieved from <https://doi.org/10.1080/10168737.2020.1785536>.
- Chami, R., Fullenkamp, C., & Jahjah, S. (2005). Are immigrant remittance flows a source of capital for development? *IMF Staff Papers*, 52(1), 55–81. Retrieved from <https://doi.org/10.2307/30035948>.
- Das, A., & McFarlane, A. (2022). Non-linear relationship between remittances and financial development in Jamaica. *International Migration*, 60(3), 242–260. Retrieved from <https://doi.org/10.1111/imig.12938>.
- Demirgüç-Kunt, A., Córdova, E. L., Peria, M. S. M., & Woodruff, C. (2011). Remittances and banking sector breadth and depth: Evidence from Mexico. *Journal of Development Economics*, 95(2), 229–241. Retrieved from <https://doi.org/10.1016/j.jdeveco.2010.04.002>.
- Deonanan, R., Ramkissoon, B., Ramkissoon, D., & Hosein, R. (2020). Disentangling the relationship between remittances and financial development: Evidence from Jamaica. *International Review of Applied Economics*, 34(2), 193–216. Retrieved from <https://doi.org/10.1080/02692171.2019.1678253>.

Dogan, E., Madaleno, M., & Altinoz, B. (2020). Revisiting the nexus of financialization and natural resource abundance in resource-rich countries: New empirical evidence from nine indices of financial development. *Resources Policy*, 69, 101839. Retrieved from <https://doi.org/10.1016/j.resourpol.2020.101839>.

Donou-Adonsou, F., Pradhan, G., & Basnet, H. C. (2020). Remittance inflows and financial development: Evidence from the top recipient countries in Sub-Saharan Africa. *Applied Economics*, 52(53), 5807–5820. Retrieved from <https://doi.org/10.1080/00036846.2020.1775191>.

Dwumfour, R. A., & Ntow-Gyamfi, M. (2018). Natural resources, financial development and institutional quality in Africa: Is there a resource curse? *Resources Policy*, 59, 411–426. Retrieved from <https://doi.org/10.1016/j.resourpol.2018.08.012>.

Erdoğan, S., Yıldırım, D. Ç., & Gedikli, A. (2020). Natural resource abundance, financial development and economic growth: An investigation on Next-11 countries. *Resources Policy*, 65, 101559. Retrieved from <https://doi.org/10.1016/j.resourpol.2019.101559>.

Ezekwe, C. I., Otto, G., Ozigbu, J. C., & Morris, R. (2022). Oil rents and human development outcomes in Nigeria: Evidence from a non-linear bounds approach to co-integration. *Saudi Journal of Economics and Finance*, 6(1), 57–62. Retrieved from <https://doi.org/10.36348/sjef.2022.v06i01.008>.

Fromentin, V. (2018). Remittances and financial development in Latin America and the Caribbean countries: A dynamic approach. *Review of Development Economics*, 22(2), 808–826. Retrieved from <https://doi.org/10.1111/rode.12368>.

Giuliano, P., & Ruiz-Arranz, M. (2009). Remittances, financial development, and growth. *Journal of Development Economics*, 90(1), 144–152. Retrieved from <https://doi.org/10.1016/j.jdeveco.2008.10.005>.

Guan, J., Kirikkaleli, D., Bibi, A., & Zhang, W. (2020). Natural resources rents nexus with financial development in the presence of globalization: Is the “resource curse” exist or myth? *Resources Policy*, 66, 101641. Retrieved from <https://doi.org/10.1016/j.resourpol.2020.101641>.

Gubert, F. (2002). Do migrants insure those who stay behind? Evidence from the Kayes area (Western Mali). *Oxford Development Studies*, 30(3), 267–287. Retrieved from <https://doi.org/10.1080/1360081022000012699>.

Gupta, S., Pattillo, C. A., & Wagh, S. (2009). Effect of remittances on poverty and financial development in Sub-Saharan Africa. *World Development*, 37(1), 104–115. Retrieved from <https://doi.org/10.1016/j.worlddev.2008.05.007>.

Gylfason, T., & Zoega, G. (2006). Natural resources and economic growth: The role of investment. *World Economy*, 29(8), 1091–1115. Retrieved from <https://doi.org/10.1111/j.1467-9701.2006.00807.x>.

Hamma, I. (2017). Linking remittances with financial development and institutions: A study from selected MENA countries. *Topics in Middle Eastern and North African Economies (Proceedings of Middle East Economic Association)*, 19(1), 113–135. Retrieved from http://meeaa.sites.luc.edu/volume19/meeaa19_5.pdf.

- Ilo, B. M., Elumah, L. O., & Sanyaolu, W. A. (2018). Oil rent and financial development: Evidence from Nigeria. *Ilorin Journal of Finance*, 2(1), 152–165. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3336099.
- Issahaku, H. (2019). Harnessing international remittances for financial development: The role of monetary policy. *Ghana Journal of Development Studies*, 16(2), 113–137. Retrieved from <https://doi.org/10.4314/gjds.v16i2.6>.
- Javadi, S., Motevaseli, M., & Farsi, J. Y. (2017). Oil rent and financial environment: A cross-country examination. *International Journal of Economics and Financial Issues*, 7(1), 298–302. Retrieved from <https://dergipark.org.tr/en/pub/ijefi/article/353191>.
- Kacou, K. Y. T., Kassouri, Y., Alola, A. A., & Altuntaş, M. (2022). Examining the sustainable development approach of migrants' remittances and financial development in sub-Saharan African countries. *Sustainable Development*, 30(5), 804–816. Retrieved from <https://doi.org/10.1002/sd.2273>.
- Kakhkharov, J., & Rohde, N. (2020). Remittances and financial development in transition economies. *Empirical Economics*, 59(2), 731–763. Retrieved from <https://doi.org/10.1007/s00181-019-01670-6>.
- Khan, M. A., Gu, L., Khan, M. A., & Oláh, J. (2020). Natural resources and financial development: The role of institutional quality. *Journal of Multinational Financial Management*, 56, 100641. Retrieved from <https://doi.org/10.1016/j.mulfin.2020.100641>.
- Khan, Z. S., & Islam, S. (2013). The effects of remittances on inflation: Evidence from Bangladesh. *Journal of Economics and Business Research*, 19(2), 198–208. Retrieved from <https://www.uav.ro/jour/index.php/jebr/article/view/94>.
- Law, S. H., & Moradbeigi, M. (2017). Financial development and oil resource abundance–growth relations: Evidence from panel data. *Environmental Science and Pollution Research*, 24(28), 22458–22475. Retrieved from <https://doi.org/10.1007/s11356-017-9877-0>.
- Majeed, M. T. (2015). Poverty effects of remittances: A comparative analysis. *Journal of International Development*, 27(1), 1–14. Retrieved from <https://doi.org/10.1002/jid.3055>.
- Mehta, A. M., Qamruzzaman, M., Serfraz, A., & Ali, A. (2021). The role of remittances in financial development: Evidence from nonlinear ARDL and asymmetric causality. *The Journal of Asian Finance, Economics and Business*, 8(3), 139–154. Retrieved from <https://doi.org/10.13106/jafeb.2021.vol8.no3.0139>.
- Misati, R. N., Kamau, A., & Nassir, H. (2019). Do migrant remittances matter for financial development in Kenya? *Financial Innovation*, 5(1), 31. Retrieved from <https://doi.org/10.1186/s40854-019-0142-4>.
- Mlachila, M., & Ouedraogo, R. (2020). Financial development curse in resource-rich countries: The role of commodity price shocks. *The Quarterly Review of Economics and Finance*, 76, 84–96. Retrieved from <https://doi.org/10.1016/j.qref.2019.06.002>.
- Organization of the Petroleum Exporting Countries (OPEC). (2022). *About us*. Retrieved from https://www.opec.org/opec_web/en/about_us/25.htm.

Sachs, J. D., & Warner, A. M. (2001). The curse of natural resources. *European Economic Review*, 45(4–6), 827–838. Retrieved from [https://doi.org/10.1016/S0014-2921\(01\)00125-8](https://doi.org/10.1016/S0014-2921(01)00125-8).

Shahbaz, M., Naeem, M., Ahad, M., & Tahir, I. (2018). Is natural resource abundance a stimulus for financial development in the USA? *Resources Policy*, 55, 223–232. Retrieved from <https://doi.org/10.1016/j.resourpol.2017.12.006>.

Sobiech, I. (2019). Remittances, finance and growth: Does financial development foster the impact of remittances on economic growth? *World Development*, 113, 44–59. Retrieved from <https://doi.org/10.1016/j.worlddev.2018.08.016>.

Sun, Y., Ak, A., Serener, B., & Xiong, D. (2020). Natural resource abundance and financial development: A case study of emerging seven (E– 7) economies. *Resources Policy*, 67, 101660. Retrieved from <https://doi.org/10.1016/j.resourpol.2020.101660>.

World Economic Forum (WEF). (2023). *Migrant workers sent home almost \$800 billion in 2022. Which countries are the biggest recipients?* Retrieved from <https://www.weforum.org/agenda/2023/02/remittances-money-world-bank/>.

Woodruff, C., & Zenteno, R. (2007). Migration networks and microenterprises in Mexico. *Journal of Development Economics*, 82(2), 509–528. Retrieved from <https://doi.org/10.1016/j.jdeveco.2006.03.006>.

World Bank. (2020). *World Development Indicators*. World Bank Group. Retrieved from <https://databank.worldbank.org/source/world-development-indicators>.

Yıldırım, S., Gedikli, A., Erdoğan, S., & Yıldırım, D. Ç. (2020). Natural resources rents-financial development nexus: Evidence from sixteen developing countries. *Resources Policy*, 68, 101705. Retrieved from <https://doi.org/10.1016/j.resourpol.2020.101705>.

Zaidi, S. A. H., Wei, Z., Gedikli, A., Zafar, M. W., Hou, F., & Iftikhar, Y. (2019). The impact of globalization, natural resources abundance, and human capital on financial development: Evidence from thirty-one OECD countries. *Resources Policy*, 64, 101476. Retrieved from <https://doi.org/10.1016/j.resourpol.2019.101476>.

Zameer, H., Yasmeen, H., Wang, R., Tao, J., & Malik, M. N. (2020). An empirical investigation of the coordinated development of natural resources, financial development and ecological efficiency in China. *Resources Policy*, 65, 101580. Retrieved from <https://doi.org/10.1016/j.resourpol.2019.101580>.



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