(IJ-07) Public Finance Choice and Citizens' Involvement: The Resource Curse of Libya

Hussein Elkamel

Assistant professor of Economics, The College of Law, Sultan Qaboos University

Amer Ahmed Ahmadi

Ph.D. candidate, Leadership, The School of Management and Leadership, Alliant International University

ABSTRACT

Libya is an oil-dependent country that relies heavily on oil sales and neglects to use other public finance sources, besides being one of the highest corrupt governments worldwide. The study investigates the assumption that the Libyan government's significant reliance on oil revenues in a way that reduces citizens' involvement leads to poor institution persistence and results in a resource curse. The study tests the relationship between oil revenue share of total revenue, multiple institutional indices, and resource course utilizing a dataset from 1984-2019.

The results indicate that the government's decision to increase reliance on oil revenues directly contributes to the resource curse and indirectly through a poor institution that prospers with decreasing financial burdens on citizens. Ultimately, the choice of government on public finance contributes to the poor institutions prevailing.

INTRODUCTION

Libya exemplifies the literature findings that oil resource is a curse for some developing countries rather than a blessing (Ploeg 2011) (Sachs & Warner, 1995). Resource wealth encourages rent-seeking and corruption activities that hurt institutions (IMF, 2012) and consequently lower growth (Beck & Laeven, 2006). Corruption is a cumbersome Libyan obstacle, with no significant

improvement against corruption over the last decade (TI, 2021). However, oil countries with better economic and institutional conditions tend to grow well (Arezki & Brückner, 2012).

The quality of institutions in oil-dependent countries is the key switch to the resource curse and considerably reduces economic growth (Tornell & Lane , 1999). The resource wealth tends to lower the aggregate income of individuals and firms where the institution is vulnerable (Mehlum, Moene, & Torvik, 2006) and causes excessive public sector employment and patronage (A.Robinson, Torvikb, & Verdierc , 2006). Resource wealth abundance and poor institutions are correlated (Anthonsen, Löfgren, Nilsson, & Westerlund , 2012), and lousy institution drives the resource curse, creating an environment that leads poor institutions to persist (Wiens, 2013).

Corruption is one of the significant issues in the Libyan economy that scores among the worst countries regionally and internationally (TI, 2021). The level of accountability among government officials towards their citizens is low. According to the Libyan Audit Bureau (LAB) in the General Annual Report, public corruption consumes most of the country's resources. The LAB has announced that the financial corruption cases in 2015 reached 102 files in which 483 public officials were involved. Financial corruption is just one out of 18 chapters that the auditing report on corrupt activities covers. The LAB's report released in September 2022 confirmed the non-improvement in government transparency and anti-corruption actions.

Holding government officials accountable is a societal process that can be strengthened or weakened according to the interactivity between the government and its citizens (Ross, 2004). However, this interactivity puts more pressure on the government's accountability and transparency, which the Libyan government hypothetically doesn't favor. Thus, the government loses the ability to develop non-oil resource revenues such as taxes. Taxes collection procedures require the government's effective interaction with its citizens and firms. Despite the financial conflict of interest between the government and taxpayers, the government will keep enhancing and responding to economic and social taxpayers' needs to ensure tax collection stability. Taxpayers will get more involved in government spending and demand higher accountability from the

government. A government that transparently communicates with its society regarding tax will contribute to greater government accountability (Boogaard, Prichard, Beach, & Mohiuddin, 2021).

The relationship between the institution and a resource curse can take two-way causality; it can be a poor institution causing a resource curse or a resource wealth creating an evil institution. But why is the institution flawed, or do Libyan citizens not fight strongly enough for a better institution? We assume that both sides of the deal (i.e., government and society) are in equilibrium; that is, the government's public finance choice is made to reduce citizens' involvement, and the citizens enjoy low financial burdens. In return, the citizens don't demand accountability. Libya's unsuccessful anti-corruption attempts potentially refer to forces that keep this statement in balance. Thus, this study investigates the collaborative relationship between public finance sources and institutions. It is more about the interaction effect of institutions and the government's ability to finance its budget independently of its citizens. *Perhaps, their long-run relationship locks the Libyan economy within the most corrupt countries in the world.*

## GOVERNMENT REVENUES, CORRUPTION, AND RESOURCE CURSE IN LIBYA

Public finance, corruption, and cursed oil are all critical indicators for the Libyan economy. Oil revenues have dominated revenue resources for the Libyan government. Graph 1 contains two figures; the Libyan government's oil and non-oil revenues relative to the GDP through 1990-2021, and the non-oil revenues in its three classifications Taxes, Custom Taxes, and Others 1994-2021. The trend of non-oil revenues from 1990-2020 is decreasing relative to the country's GDP, while oil revenues fluctuate considerably through the same period. Presumably, governments intentionally give up the potential benefits of non-oil resources to avoid societal pressure and simultaneously accept the anxiety of oil market instability.
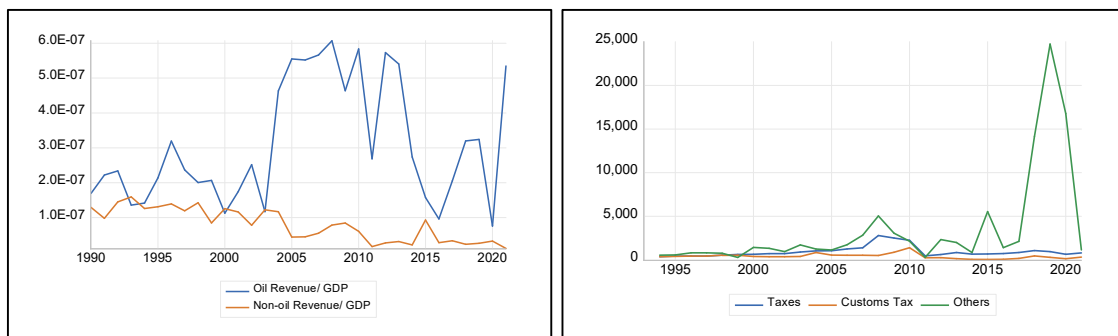
Graph 1: Libyan government revenue sources

We observe that "others" as a source of revenues is the most active and leading measure relative to the two taxes measures. Others include gains the Libyan government obtained from sources other than taxes, except for taxes imposed on foreign currency sales since 2018[3]. The taxes and custom taxes reveal that no noticeable improvements are achieved despite GDP growth. The crumbling of oil revenues over the period should create an ambition to develop non-oil revenues, but the government has neglected them (Knack, 2009).

At the same time, corruption in Libya is high and relatively above average worldwide. The Corruption Index is an assessment of corruption within the political system. Graph 2 indicates that the level of corruption in Libya is high and above average world corruption and has tended to increase over past decades. Regarding Graph 1, Libyan officials' choice[4] to be over-dependent on oil revenue is associated with ongoing corruption activities and refers to the country's oil-cursed experiences. In practice, officials are more concerned about oil prices in the world market than they regard the conditions of the local economy. In addition, the officials are not asking people to participate financially in government spending and are expected not to object to officials' use of oil resources.

---
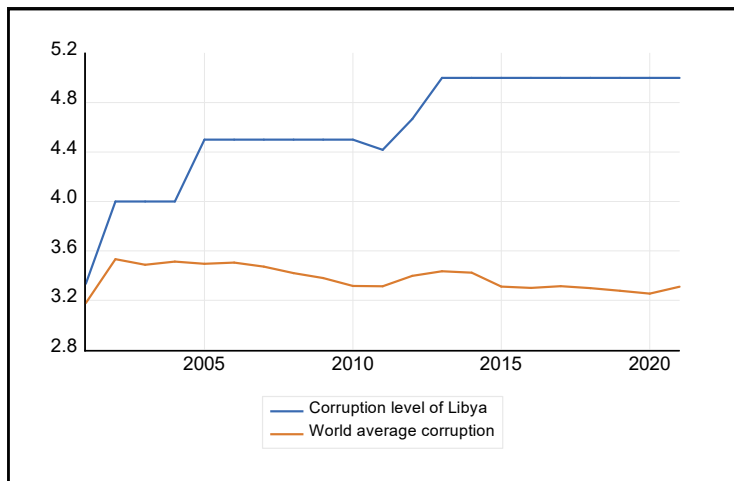
[3] Taxes imposed on foreign currencies sold by CBL to reduce the gap in the Libyan exchange market between formal and parallel exchange rates.
[4] The government has the sovereignty to develop taxes and other non-oil revenues but the choice through decades has been to neglect non-oil sources.

Graph 2: Libyan corruption level and the world corruption level by ICRG.

Figure 3 below presents pairs of observations of oil and non-oil revenues as a share of the GDP with corruption levels[5] in Libya, along with a regression fitted line. The two figures indicate that from 1984-2021, oil revenues and good governance are negatively correlated, and non-oil revenues and better governance are positively correlated.
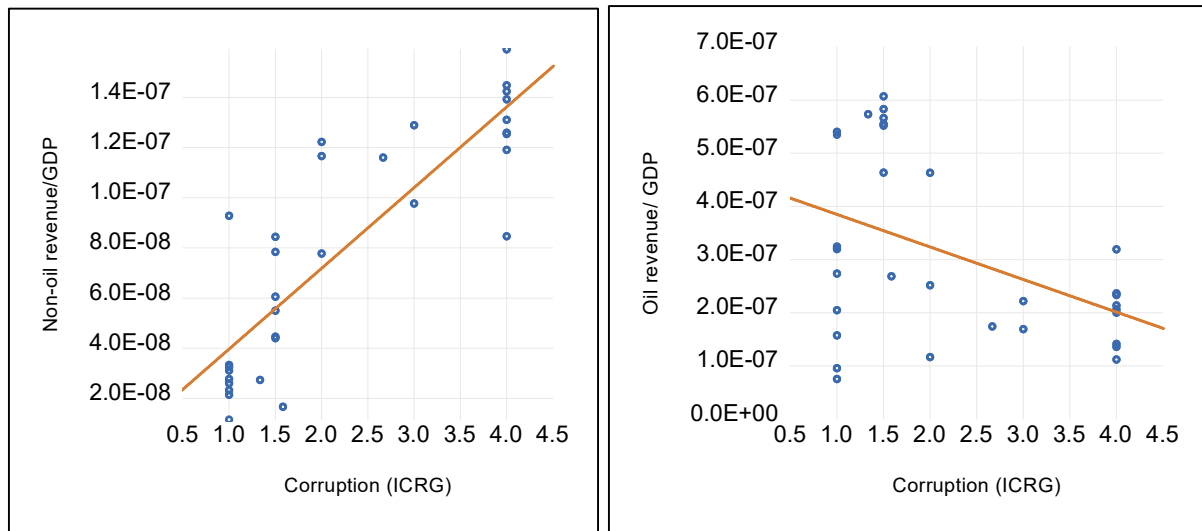

Figure 3: Oil and non-oil revenues and corruption in Libya 1984-2021

DATA

Brief definitions and sources are in the appendix of all variables used in the analysis. The independent variables consist of critical variables related to the research question and other control variables that may explain some of the dependent variable variations. The institutional indicators are obtained from ICRG risk indicators, including a *composite institutional index, corruption, government stability, democratic accountability, and investment profile risk*. *The composite institutional risk* is a 12 Political risk indicator that gives an overview of Libya's institutional quality.

Other institutional variables within *the composite index* indicate government-citizens' institutional relationship. *The government stability* indicator measures the connectivity between the

---

[5] High values of corruption refer to low risk of corruption and low values refer to high risk of corruption.

government and its people by measuring its popular support. *The investment profile index* measures the investment risk due to expropriation, profit repatriation, and payment delays; in the Libyan context, as the government relies less on revenues obtained from businesses, the government is more likely to risk businesses' investment at its private gains. *The corruption index* is a measure of corruption in the political system. With its disregard for non-oil revenues, the Libyan government is more likely to commit corrupt activities. Finally, *democratic accountability* measures how responsive a government is to its people, which is presumed to be low in a government that relies heavily on oil sales and minimizes taxes on its people as the Libyan government does.

The variable on government revenues is *oil revenues to total* government revenues. The variable should show the government's tendency to obtain revenues without interacting with its people. At the same time, the government can impose taxes and other types of payments on its people. *Openness* is import plus export to the GDP of the Libyan economy, with high dependence on oil; this variable is assumed to explain part of the variations in the dependent variable statistically. *Government spending* is included to control the size of the government, which contributes resource curse as the country suffers from an inflated public sector. Lastly, the *regime change* is a dummy variable that takes zero before 2011 and one from 2011 and on. The variable is to account for the regime effect on the resource curse and whether the resource curse is a result of a regime or not.

METHOD

The methodology intends to test whether the Libyan officials' choice of public finance contributes to the poor institution, which in turn causes a resource curse. The study examines the combined effects of the Libyan government revenue structure with multiple institutional indicators on the resource curse. To proceed with this test, we utilize the following simple time series regression model:

$$Oil\ Rent_t = \alpha + oil\ revenue\ share_t + institutions_t + oil\ reveneue\ share * institution_t + Controls_t + \varepsilon$$

The oil rent is the measurement of the resource curse. The oil revenue share of total revenue is expected to have a positive effect on the resource curse. Whereas institutional indicators should have a negative impact as the indicators' high values represent low risk and low values represent a high risk. The primary focus is on the interaction variables that will show the impact of government intensity of using oil resources and the separability from its people that comes with it over the resource curse in Libya.

RESULTS

Table 1 presents five models of regression analysis investigating the direct effect of oil revenues' reliance on oil rent and the indirect impact through the five different institutional indexes. The first observation is that the results in all five models are consistent in terms of coefficient signs and significance. *Openness* has a positive and significant effect on oil rent through all models, which is expected as the country's export and import relies heavily on oil sales. *Government spending* has no considerable impact through models. The *regime change* indicator in all models has a negative sign and statistical significance that may indicate some benefit of regime change on reducing resource curse.

Table 1: OLS time series regression: oil rent, institutions, and oil revenue (1990-2021)

CONSTANT	1.84	1.857	2.097	1.934	1.911
	(0.00)	(0.00)	0.00)	(0.00)	0.00)
OPENNESS	0.019	0.014	0.019	0.018	0.020
	(0.03)	(0.09)	(0.02)	(0.03)	(0.02)
GOV SPENDING	-3.27E-06	-3.67E-06	4.72E-06	-6.10E-06	-3.39E-06
	(0.63)	(0.53)	(0.45)	(0.29)	(0.58)
REGIME CHANGE	-0.350	-0.349	-0.369	-0.406	-0.356
	(0.01)	(0.01)	(0.00)	(0.00)	(0.01)
OIL REV	2.497	2.456	2.152	2.415	2.414
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
COMPOSITE INST	0.011				
	(0.45)				
OIL*COMPOSITE INST	-0.014				
	(0.02)				

CORRUPTION	0.041				
	(0.76)				
OIL REV*CORRUPTION	-0.417				
	(0.01)				
GOV STABILITY		-0.054			
		(0.38)			
OIL REV*GOV STABILITY		-0.103			
		(0.01)			
DEMO ACCOUNT			0.954		
			(0.00)		
OIL REV*DEMO ACCOUNT			-0.679		
			(0.01)		
INVEST PROFILE				0.039	
				(0.59)	
OIL REV*INVEST PROFILE				-0.116	
				(0.03)	
R-squared	72%	75%	79%	77%	73%

Note: Dependent variable is *Oil Rent* in log form. All variables are in first different representations due to the existence of first-order unit root, except *Oil Rev & Regime Change*. *P-values* are in parenthesis.

The coefficients on the oil revenue indicator are significant and have the expected sign; that is, as the dependence on oil revenues increases, the resource curse of oil increases. However, this result could have been arising from economic conditions, that is, over-dependent on oil leads the economy to be less efficient and be subject to oil market fluctuations which cause oil to be a curse, not a blessing. Thus, we construct an interaction term between the public finance choice and institutional measures for the Libyan economy and see how both variables collectively contribute to oil rent.

All coefficients on institutions variables are not significant except for the democratic accountability where its sign is positive and contradicts our assumption. However, the interaction coefficients on all models indicate the assumption that oil revenues and institutions collectively contribute to the resource curse in Libya. This reveals that the government's decision to increase

reliance on oil revenue associated with poor institutions has led to resource curse prevalence. Thus, a constructive change in government revenue resources is needed to bring people and the government together to better improve the quality of institutions.

CONCLUSION

The resource curse is a critical issue that faces most oil resource countries at least right after oil discovery when oil revenues crowd out exportable sectors and increase rent-seekers activists around the government (Dutch Dieses). Some oil resource countries experience oil blessing, while others experience oil curse. Several studies reveal that poor institution is the distinguished factor that splits oil resource countries into resource blessing or resource curse once. This study contributes to the relevant literature by investigating the assumption that the oil resource government's official choice to be over-dependent on oil revenue and neglecting other sources that involve citizens' participation is the key that makes poor institutions persist, and so does the oil curse. The study investigates the assumption validity of Libya, but it extends the implications to all oil-over-dependent countries. Despite the oil prices instability and all interruptions to the Libyan government's development plans, the officials, through decades, have kept relying extensively on oil resources and disregarded other sources where citizens' involvement is needed. The regression results on the Libyan economy show that over-reliance on oil revenues leads to a resource curse; in addition, the government's choice of oil over-dependency along with negatively multiple institutional indices negatively contributes to the resource curse Libya through decades.

APPENDIX

Table 2: Variables definitions and sources

Variables	Definitions	Source	Obs.
Oil rent (%GDP)	Oil rents differ between the production value at regional prices and the total production costs.	WDI	31
GDP growth	GDP growth current local currency value	The Central Bank of Libya CBL	31
Openness	Export and import to GDP	WDI	30
Government expenditure	All spending; operational (salaries), development (investment), and contemporary (subsidy).	Ministry of Finance of Libya	38

Composite risk index	The political risk of different 12 components where High values refer to low risk and low values to higher risk.		
Corruption	An indicator of corruption in the political system. High value is the least corruption, and low once is the highest corruption level.	International Country Risk Guide	38
government stability	The risk rating is calculated based on government cohesion, legislative strength, and popular support. High values refer to low risk and low values to higher risk.	International Country Risk Guide	38
democratic accountability	A measure of how responsive government is to its people. High values refer to low risk and low values to higher risk.	International Country Risk Guide	38
investment profile	The risk falls on investment due to contract expropriation, profit repatriation, and payment delays. High values refer to low risk and low values to higher risk.	International Country Risk Guide	38
Oil revenue	Oil revenue collected by the government is represented in national currency.	CBL and the Ministry of Finance	38
Non-oil revenue	Including taxes, customs taxes, and others. Values are national currency.	CBL and the Ministry of Finance	38
Regime change	It takes the value 0 before 2011, and 1 for the 2011 year and on.	Author constructed	38
Taxes	Taxes excluded custom taxes.	CBL	38

REFERENCES

A.Robinson, James, Ragnar Torvikb, and Thierry Verdierc . 2006. "Political foundations of the resource curse." *Journal of Development Economics* 79 (2): 447-468.

Anthonsen, Mette, Åsa Löfgren, Klas Nilsson, and Joakim Westerlund . 2012. "Effects of rent dependency on quality of government." *Economics of Governance* 13: 145-168.

Arezki, Rabah, and Markus Brückner. 2012. "Commodity windfalls, polarization, and net foreign assets: Panel data evidence on the voracity effect." *Journal of International Economics* 86 (2): 318-326.

Beck, Thorsten, and Luc Laeven. 2006. "Institution Building and Growth in Transition Economies." *Journal of Economic Growth* 11 (2): 86-157.

Boogaard, Vanessa van den, Wilson Prichard, Rachel Beach, and Fariya Mohiuddin. 2021. "Enabling tax bargaining: Supporting more meaningful tax transparency and taxpayer engagement in Ghana and Sierra Leone." *Development Policy Review.*

IMF. 2012. "Macroeconomic Policy Frameworks for Resource-rich Development Countries." August. https://www.imf.org/external/np/pp/eng/2012/082412.pdf.

Knack, Stephen. 2009. "Sovereign rents and quality of tax policy and administration ." *Journal of Comparative Economics* 37: 359-371.

LAB, Libyan Audit Bureau. 2015. "General Annual Report." Tripoli.

Mehlum, Halvor, Karl Moene, and Ragnar Torvik. 2006. "INSTITUTIONS AND THE RESOURCE CURSE." *The Economic Journal* (Published by Blackwell Publishing) 116: 1-20.

Ploeg, Frederick van der. 2011. "Natural Resources: Curse or Blessing?" *Journal of Economic Literature* 49 (2): 366–420.

Ross, Michael. 2004. "Does Taxation Lead to Representation?" *British Journal of Political Science* 34 (2): 229-249.

Sachs, Jeffrey D, and Andrew M Warner. 1995. "Natural resource abundance and economic growth." *NBER working paper.*

TI. 2021. *Transparency International, the global coalition aginst corruption.* Accessed July 13, 2022. https://www.transparency.org/en/news/cpi-2021-middle-east-north-africa-systemic-corruption-endangers-democracy-human-rights.

Tornell, Aaron, and Philip R Lane . 1999. "The Voracity Effect." *American Economic Association* 89 (1): 22-46.

Wiens, David. 2013. "Natural resources and institutional development." *Journal of Theoretical Politics* 26 (2): 197-221.