

OIL WINDFALL AND FINANCIAL SECTOR PERFORMANCE: THE ROLE OF INSTITUTIONS

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Abstract

The aim of this paper is to investigate the link between oil revenue and financial sector performance in the major oil-producing economies and to assess the role of institutional variables in shaping this relationship. The approach is taken from two perspectives: macro-level (financial development) and micro-level (banking performance) analyses. The findings suggest positive association between the oil windfall and financial sector performance in OIC countries, while stronger institutional settings have weakening effect on this link. The profitability of Islamic and investment banks are positively related to oil windfall. The findings have important implications for the policymakers and practitioners.

Introduction

Almost every second barrel of oil is produced in the OIC region. It is expected that the influx of oil revenue will help in developing the financial markets and the economies of these countries. So, the accelerated growth of Islamic financial industry at a double-digit rate annually over the last decades has been attributed to the liquidity generated from the oil production. However, the recent adverse shocks emanating from the international oil market (quadruple drop in oil price) have cast scepticism about the sustainability of financial sectors in OIC oil-producing countries, in general, and the growth of Islamic banking industry, in particular. Slumping oil prices are expected to reduce the liquidity available to the financial sector in the form of deposits, hence reducing the volume of funds available for financing, consequently putting pressure on the profitability of banks, which appears to suggest a positive relationship between oil revenue and the growth of the financial sector in these economies.

The supply-driven and demand-driven hypotheses argue that financial development is positively linked to the economic growth. Also, the documented evidence suggests the negative relationship between oil revenue and economic output due to the "*Dutch disease*" (when oil industry crowds out non-oil sector) and "*resource curse*" effects (when mineral-rich countries form rent-seeking behaviour). Nonetheless, there are exceptions to this phenomenon. For example, the case of Norway and Botswana - both rich with natural resources - have shown excellent results in managing their resources due to its well-established institutional framework. So, the following questions arise:

- (i) What is the relationship between the oil windfall and financial sector performance in oil-abundant economies? and
- (ii) What role (if any) do the political, legal and economic institutions play in shaping this link?

This study addresses these questions from the macro and micro perspectives. The macro level study aims to investigate the direct and indirect effects of oil revenue on financial sector development and then assesses the role of institutional variables in conditioning this relationship. On the micro level, the focus is also on the direct and indirect links between the

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oil rents and bank profitability and tests whether the quality of institutions does influence this effect. Figure 1 below shows the expected relationship between the oil windfall and financial sector (F) performance.

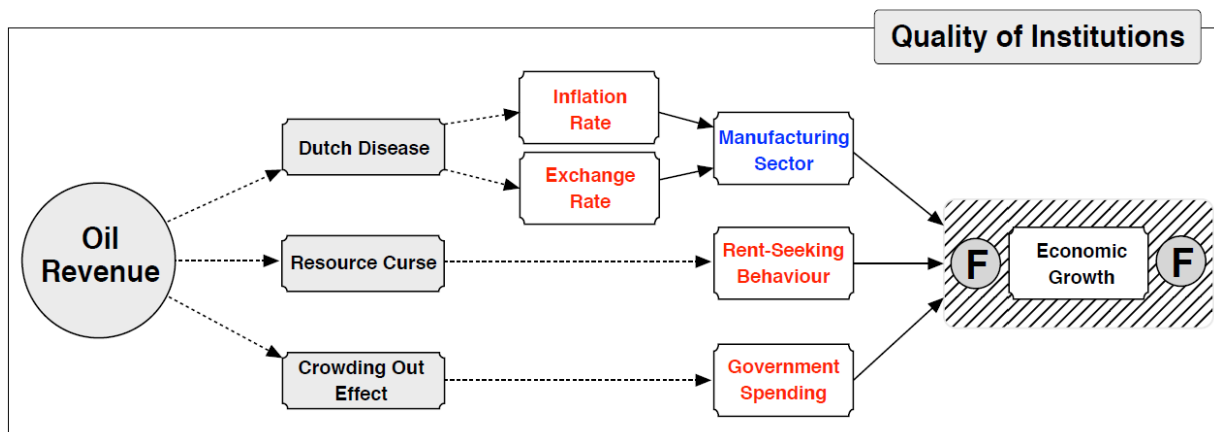


FIGURE 1: EXPECTED OIL-FINANCE-INSTITUTIONS LINK

1. Methodology

The macro-level study covers a sample of 44 major oil-producing economies comprising 23 OIC member countries, thirteen developing and eight developed non-OIC economies over the period from 1995 to 2012 and employs the feasible generalised least squares estimator (FGLS) to analyse the data. Private credit by banks over GDP is used as a proxy of financial development. As for the micro-level perspective, the study focuses on 442 banks from 23 OIC oil-rich countries which include 116 Islamic, 73 investment, and 253 commercial banks and uses fixed/random effects estimators. The data sample extends over the period from 2000 to 2012. Banking performance is proxied by the return on average assets (ROA). Oil revenue is measured as a ratio of oil price multiplied by volume of oil production over population. The quality of institutions is represented by economic freedom scores from the Heritage Foundation (www.heritage.org) as well as country financial, economic and political risk indicators from the International Country Risk Guide (www.prsgroup.com). Macroeconomic variables are sourced from Datastream, and bank-level data is obtained from the Fitch Connect database.

2. Findings and Policy Implications

The findings from macro-level analysis suggest (see **Table 1** in the Appendix) that

- (i) oil revenue is a significant and positive determinant of financial development in the OIC region, but this relationship in non-OIC countries is inverse;
- (ii) the inflation rate, manufacturing sector growth, rent-seeking and public spending are among the potential indirect channels through which oil revenue may exert its influence on the financial development in oil-abundant countries;
- (iii) Generally, institutional variables have a negative impact on the oil-finance nexus.

The results from micro-level study indicate (see **Table 2** in the Appendix) that

- (i) Islamic and investment banks tend to earn higher returns when oil-generated liquidity expands, while commercial bank profitability appears to be independent of the dynamics of the oil market;
- (ii) in general, oil revenue may influence the banking performance through macroeconomic channels such as real effective exchange rate, economic diversification, inflation rate, rent-seeking behaviour and government expenditure;

- (iii) consistent with the results from the macro-level study, institutional variables have negative impacts on the relationship between oil revenue and bank profitability, which implies that the higher level of certainty in the financial markets tends to lower the risk premium and hence the expected returns.

Policymakers could use the findings to make greater efforts to mitigate the exposure of oil-producing economies to external oil price shocks. The key policy priorities should, therefore, be

- (i) to build up the reserves during the high oil price periods in the form of Waqf or Sovereign Wealth Funds (for example, following the Norway model) to smoothen the expenditure in the long-run;
- (ii) to reduce the excessive dependence of an economy on the oil industry by supporting the non-oil private sector while diversifying the economies to non-oil activities;
- (iii) to enhance the quality of institutional settings that would reduce the asymmetric information and minimize transaction costs, thus, supporting the development of capital markets and promoting the partnership-based contractual arrangements - the core of Islamic Finance.

Conclusion

The purpose of this study is to fill the gap in the existing literature by assessing the oil-finance-institutions link in the major oil-producing economies. Two-level analysis is conducted to address the research objectives: macro (financial development) and micro (bank profitability). The findings show that oil-generated income is a positive (/negative) determinant of financial sectors from OIC countries (/non-OIC oil-rich developed and developing economies). However, stronger institutional environment have weakening effect on oil-finance link. Islamic and investment banks from OIC region tend to earn higher returns when oil revenue per capita is high, while commercial banks seems to be independent from the dynamics of oil market. The findings have important implications for the policymakers and practitioners.

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Appendix

TABLE 1: RESULTS FROM THE MICRO-LEVEL ANALYSIS

Financial Development: <i>Private Credit as % of GDP</i>			
Sample	Developed	Developing	OIC Countries
Direct Effect			
Oil Revenue	$-ve^c$	$-ve^b$	$+ve^b$
Indirect Effect: Oil revenue as a conditioning variable (\$0–50K per capita)			
Real Eff.Exchange Rate	$\geq \$400^+\uparrow$	ins	ins
Inflation Rate	ins	ins	$\leq \$1K^-\downarrow$
Economic Diversification	$\geq \$22K^+\uparrow$	$\leq \$55^-\downarrow \geq \$1K^+\uparrow$	$\leq 22K^+\downarrow$
Rent-Seeking	$\leq \$400^-\downarrow$	ins	$\leq \$1K^-\downarrow$
Government Spending	$\$55-1K^+\downarrow$	$\leq \$400^+\downarrow$	$\leq \$1K^+\downarrow$
Role of Institutions: Quality of institution as a conditioning variable (0–100)			
<i>Political Institutions</i>			
Bureaucracy Quality	$=100^-$	$40-50^+\uparrow$	$\leq 30^+\downarrow \geq 50^-\uparrow$
Control of Corruption	$\leq 50^+\downarrow$	$=0^-$	$\leq 20^+\downarrow \geq 50^-\uparrow$
<i>Legal Institutions</i>			
Law and Order	$\leq 60^+\downarrow =100^-$	ins	$\geq 60^-\uparrow$
Property Rights	$\leq 100^{+-}$	$\leq 100^-\downarrow$	$\leq 10^+\downarrow \geq 40^-\uparrow$
<i>Economic Institutions</i>			
Business Freedom	ins	$\leq 100^-\uparrow$	$\leq 30^+\downarrow$
Financial Freedom	$\leq 40^-\downarrow \geq 80^+\uparrow$	$\leq 100^-\uparrow$	$\leq 40^+\downarrow$
Fiscal Freedom	$\geq 90^+\uparrow$	$\leq 100^-\uparrow$	ins
Investment Freedom	$\leq 60^-\downarrow$	$\leq 100^-\downarrow$	$=0^+$

Outside the ranges shown here, the coefficients are insignificant.

Notes: ^b - 5% significance level, ^c - 10% significance level. K - thousands USD.

ins - insignificant, + positive relation, - negative relation, +- transition from positive to negative, -+ transition from negative to positive, ↑ increasing in absolute value, ↓ decreasing in absolute value.

TABLE 2: RESULTS FROM THE MACRO-LEVEL ANALYSIS

Dependent Variable: <i>Bank Profitability</i>			
Sample	Islamic Bank	Investment	Commercial
Direct Effect			
Oil Revenue	+ve ^b	+ve ^c	ins
Indirect Effect: Oil revenue as a conditioning variable (\$0–50K per capita)			
Real Eff.Exchange Rate	\$1K-8K ⁻ ↑	≥\$1K ⁺ ↑	\$400-3K ⁻ ↑
Inflation Rate	ins	ins	\$400-22K ⁺ ↓
Economic Diversification	\$25-150 ⁻ ↓	ins	ins
Rent-Seeking	ins	\$10-3K ⁺ ↓	ins
Government Spending	ins	≤\$150 ⁺ ↓ ≥\$3K ⁻ ↑	≥\$8K ⁻ ↑
Role of Institutions: Quality of institution as a conditioning variable (0–100)			
<i>Political Institutions</i>			
Bureaucracy Quality	≤100 ⁺ ↑	50-70 ⁺ ↓	ins
Control of Corruption	≤100 ⁺ ↓	ins	ins
<i>Legal Institutions</i>			
Law and Order	≤100 ⁺ ↓	ins	≤50 ⁻ ↓
Property Rights	≤100 ⁺ ↓	ins	ins
<i>Economic Institutions</i>			
Business Freedom	≤100 ⁺ ↓	ins	≤40 ⁺ ↓ ≥70 ⁻ ↑
Financial Freedom	≤100 ⁺ ↓	20-40 ⁺ ↓	≥50 ⁻ ↑
Fiscal Freedom	≤100 ⁺ ↓	ins	≥70 ⁻ ↑
Investment Freedom	≤100 ⁺ ↓	ins	≥50 ⁻ ↑

Outside the ranges shown here, the coefficients are insignificant.

Notes: ^b - 5% significance level, ^c - 10% significance level. K - thousands USD.

ins - insignificant, + positive relation, - negative relation, +- transition from positive to negative, -+ transition from negative to positive, ↑ increasing in absolute value, ↓ decreasing in absolute value.