The Middle East and North Africa's natural resource curse: A causal nexus between oil and conflict

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Abstract

The effects of natural resource wealth on conflict in the Middle East and North Africa (MENA) region is explained through resource curse theory. The resource curse theory posits a relationship between non-renewable natural resource wealth and multiple issues, including conflict, authoritarianism, decreased economic stability, and economic growth. The aim of this paper is to test a specific part of the resource curse theory, the relationship between hydrocarbon wealth and conflict. The validity of this theory is tested through the use of a framework of causal analysis proposed by Kellstedt and Whitten. Using the case studies of Khuzestan, the Iran–Iraq War, Libya, Tunisia, Norway, and Qatar, each hurdle within the framework of causal analysis puts the resource curse theory through a rigorous test. The use of Kellstedt and Whitten's framework will allow for a qualitative analysis of the resource curse theory, revealing a causal relationship between hydrocarbon wealth and conflict. Establishing this causality will be paramount in the discussion of relevant reforms in the region to prevent the onset of future conflict. The crux of this paper is that if confounding variables like pre-existing strong governing institutions and equitable resource rent distribution are controlled, there exists a causal relationship between hydrocarbon wealth and violent conflict. The effect of the aforementioned confounding variables on the causal relationship between hydrocarbon wealth and conflict was identified during the examination of oil-exporting countries such as Norway and Qatar.

1 Introduction

Natural resource endowment has characterised the political economy of the Middle East and North Africa (MENA) region throughout the twentieth century. It is the aim of this paper to address the hypothesis that an abundance of hydrocarbon wealth leads to violent conflict and popular unrest in the MENA region. Wherein, hydrocarbon wealth is identified as an independent variable and violent conflict as a dependent variable. In order to examine causality, this paper will utilise the following framework proposed by Kellstedt and Whitten:[1]

1. Is there a credible causal mechanism that connects the two variables?
2. Can the possibility of reverse causality be overcome?
3. Is there covariation between the two variables? and
4. Has the analysis controlled for all confounding variables that might make the association between the two variables spurious?

Each step in the framework will be examined through various case studies, including Khuzestan, the Iran–Iraq War, Libya, Tunisia, Norway, and Qatar. Applying Kellstedt and Whitten's framework to this paper's hypothesis will reveal that an abundance of hydrocarbon wealth has certainly been a contributary factor towards instability in the region, if other confounding variables are controlled. Ultimately, this paper will aim to address the hypothesis in a multivariate format, wherein it implies that the dependent variable of this hypothesis can ultimately be caused by more than one factor.

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[1] Paul M Kellstedt and Guy D Whitten, *The fundamentals of political science research,* 2nd ed. (Cambridge: Cambridge University Press, 2013), 54.

2 Evaluating the causality between non-renewable resource abundance and conflict

To analyse the association between oil and conflict, hydrocarbon wealth and the frequency of conflict are identified as the independent and dependent variables, respectively. Controlling these variables will yield whether they are indeed related.

2.1 Is there a credible causal mechanism that connects the two variables?

This section will explore how an allocative governance apparatus can encourage violence if the resource rents are not equitably distributed back to the population. The case studies of Khuzestan and the Iran–Iraq War will be used to examine whether the distribution of oil rents is a credible causal mechanism that connects the variables of hydrocarbon wealth and conflict.

According to rentier state theory, natural resource wealth is a key determinant in the type of governance apparatus a state seeks to implement. Resource-poor countries focus on extracting revenue from their constituencies through taxation, referred to as an extractive governance apparatus.[2] Contrarily, states dependent on resource rents focus on allocating them back to their constituencies, in exchange for quiescence and loyalty.[3] This is referred to as an allocative governance apparatus.

Inequitable distribution of rents from 'lootable' resources (resources that attract unscrupulous actors) such as oil incentivise non-state actors to engage in armed rebellion in order to seize a significant source of wealth.[4] As Lay and Basedau argue, 'oil production … is often associated with drastic negative externalities for the resident population',[5] through the immense environmental pollution and large-scale land expropriation it causes. According to Nicholson and Snyder, a negative externality is the negative 'effect of one party's economic activities on another party that is not taken into account by the price system'.[6] Additionally, extracting hydrocarbons does not reward the local population with employment, since it is not a labour-intensive industry, further contributing to the greed of rebellious non-state actors.[7] Therefore, if the local population is not equitably compensated through rents for the negative externalities they face, this will incentivise popular unrest and secessionist movements in that region, as will be illustrated through the case study below.[8]

The Khuzestan separatist movement in Iran is a real-life example of why disproportionate distribution of oil rents to oil-producing regions can lead to popular unrest.[9] Khuzestan houses approximately 6 per cent of Iran's total population (including most of the country's Arab minority) and almost all of its oil and natural gas reserves.[10] Khuzestan's vast oil reserves acted as a 'honeypot', attracting not only non-state actors but also their neighbour Iraq, precipitating the Iran–Iraq War.[11] Saddam Hussein's goal of establishing Iraq as a 'regional superpower' required him to take control of Khuzestan, to liberate the Arabs from Persian rule, and to administer one of Iran's most economically lucrative regions.[12]

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[2] Giacomo Luciani, 'Oil and political economy in the international relations of the Middle East', *International Relations of the Middle East*, ed. Louise Fawcett (Oxford: University of Oxford Press, 2005).

[3] Ibid.

[4] Matthias Basedau and Jann Lay, 'Resource curse or rentier peace? The ambiguous effects of oil wealth and oil dependence on violent conflict', *Journal of Peace Research*, no. 6 (2009): 757–76.

[5] Ibid., 368.

[6] Walter Nicholson and Christopher Snyder, *Intermediate microeconomics and its applications* (Boston: Cengage Learning, 2015), 325.

[7] Ibid.

[8] Ibid.

[9] Nigel Ashton and Bryan Gibson, *The Iran-Iraq War: New international perspectives*, Cold War History (New York: Routledge, 2012).

[10] Amir Ahmadi Arian, 'Iran's government cannot afford to ignore Khuzestan anymore', *Al Jazeera*, 9 December 2018, www.aljazeera.com/indepth/opinion/iran-government-afford-ignore-khuzestan-anymore-181207133849863.html.

[11] Will D Swearingen, 'Geopolitical origins of the Iran–Iraq War', *Geographical Review*, no. 4 (1988): 405–16.

[12] Ibid.

Consequently, this put Khuzestan at the forefront of a violent conflict between the Arabs and the Persians, damaging critical infrastructure in the region.[13]

Another negative externality imposed upon Khuzestan by its hydrocarbon wealth is pollution; it is currently 'Iran's most polluted state'.[14] This polluted, war-torn region has also been largely neglected by Tehran since the war, contributing to Khuzestan's poor economic performance. According to the Statistical Centre of Iran, Khuzestan's unemployment rate in 2016 was around 13 per cent, ranking fourth highest in the country at that time.[15] To further illustrate the asymmetric nature of provincial development in Iran, Pourfaraj et al. use the Theil index:[16] the Theil index is used to measure economic inequality, measuring the distance of the population from perfect equality.[17] In the case of Khuzestan, it is the furthest away from perfect equality relative to every other province, making it the most economically unequal province in the country. This demonstrates a failure of Tehran's allocative apparatus, wherein inequitable distribution of oil rents in Khuzestan has stimulated popular unrest among those that fail to be compensated for the negative externalities imposed on them.

Therefore, there exists a credible causal mechanism that connects hydrocarbon wealth and conflict, if 'oil is extracted in the settlement area of territorially concentrated ethnic groups'[18] that are not equitably compensated. Distribution of oil rents becomes the causal mechanism linking the prevalence of hydrocarbons with conflict. The first of the four hurdles to establishing causality has been surmounted. Now that a causal link has been established between the two variables, reverse causality will be explored in the next section, which is the next step towards examining the causal relationship between hydrocarbon wealth and violent conflict.

2.2 Can the possibility of reverse causality be overcome?

This section will explore whether the causal arrow associating hydrocarbon wealth with conflict can be reversed. Does conflict cause more (or less) oil production in the MENA region? Investors in general are very risk-averse to the prevalence of violence, hence 'the mere anticipation of conflict may deter prospective investors from financing oil exploration and extraction projects'.[19] This undermines the validity of the idea that hydrocarbon wealth leads to more violence because conflict-prone countries will consequently have less oil production. During the Iran–Iraq War, for example, oil production in both countries declined significantly.[20] A more recent example of this mechanism comes from events in Libya.

As a result of the conflict that ensued to oust Muammar al-Qaddafi, Libya's hydrocarbon production reduced drastically.[21] The 42-year reign of the al-Qaddafi regime hindered the development of Libya's public sector institutions. This is because Colonel al-Qaddafi espoused his ideology of 'Jamahiriya', a political philosophy wherein direct popular rule by the ruler is preferred over republicanism.[22] According to Boduszyński, this led to the creation of a country where the only encompassing governing 'institution' was Colonel al-Qaddafi himself and his clutch of advisers.[23] This ensured Libya's development as a 'weak' state, with constant conflict between warring tribes and factions in the

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[13] Ibid.

[14] Ibid.

[15] Statistical Centre of Iran, 'Khuzestan', (Tehran, 2019), www.amar.org.ir/english/Iran-at-a-glance/Khuzestan (accessed 21 September 2019).

[16] Alireza Pourfaraj, Nader Mehregan, Saeed Karimi Potanlar and Mohammad Reza Eskandariata, 'Regional inequality in Iran and the impact of economic factors: A spatial econometric approach', *Iran Economic Review*, no. 2 (2019): 1–23.

[17] United States Census Bureau, 'Theil index', *Census.gov*, 24 May 2016 (Washington DC, 2019), www.census.gov/topics/income-poverty/income-inequality/about/metrics/theil-index.html.

[18] Philipp Hunziker and Lars-Erik Cederman, 'No extraction without representation: The ethno-regional oil curse and secessionist conflict', *Journal of Peace Research*, no. 3 (2017): 367–69.

[19] Ibid., 366.

[20] Ashton and Gibson, *The Iran–Iraq War*, 76.

[21] Toni Johnson, 'Oil's trouble spots', *Council on Foreign Relations*, 20 January 2012, www.cfr.org/backgrounder/oils-trouble-spots.

[22] Mieczystaw P Boduszyński and Duncan Pickard, 'Tracking the "Arab Spring": Libya starts from scratch', *Journal of Democracy*, no. 4 (2013): 86–96.

[23] Ibid.

country.[24] Paradoxically, the power vacuum left by the demise of Colonel al-Qaddafi has since maintained conflict in the country, as new leaders compete for power.[25] According to Reuters, before al-Qaddafi's demise, Libya was pumping more than 1.6 million barrels of oil per day.[26] In February 2018, seven years after al-Qaddafi's death, the country was producing around 1.28 million barrels per day, representing a 20 per cent decline in oil production.[27] Therefore, the constant presence of conflict in the post-al-Qaddafi era in Libya has deterred oil production in the region.

Production generally reduces during conflict due to the 'honeypot effect'; rebels and other actors are incentivised to capture oil fields to attain the source of the state's wealth.[28] According to Reuters, non-state actors in Libya have exercised their desire to control oil fields. Through control, these groups are able to threaten production cuts as bargaining chips to press financial and political demands, which negatively affected Libya's overall supply of oil.[29] Therefore, the presence of this phenomenon prevents the omission of reverse causality. This is because the presence (or possibility) of conflict can consequently affect the level of oil production. While this weakens the relationship between hydrocarbon abundance and conflict, the relationship between the two variables still cannot be discounted. The third hurdle to establishing causality can still be examined, while maintaining the possibility that the 'causal arrow might be reversed'.[30]

2.3 Is there covariation between the two variables?

This section will examine the covariation between hydrocarbon abundance and conflict. Covariance examines the interdependent relationship between two random variables.[31] In simpler terms, this section will consider whether there is a simple association/correlation between hydrocarbon wealth and violent conflict.[32] To examine this relationship, the independent variable (hydrocarbon wealth) will be controlled. This will reveal any changes that occur in the dependent variable (conflict) as a result of controlling the independent variable. The aforementioned case study of Khuzestan already demonstrates a region where an increased incidence of hydrocarbons leads to more conflict. For this relationship to be reaffirmed, lowering the amount of the independent variable (hydrocarbons) should consequently yield a lower incidence of conflict in another case study as well. Therefore, the case study of Tunisia will be explored.

Citizens of countries with little or no oil, such as Tunisia, still face an increased incidence of conflict.[33] According to Hinds, 'Tunisia was the first Arab country in modern history to overthrow its government',[34] which subsequently instigated the Arab Spring. Many factors contributed to this popular unrest, but the most significant were socio-economic indicators: 'high rates of unemployment and a slowdown of the economy have led to economic suffering and contributed to the growing antagonism toward the government'.[35] According to the World Bank, the Tunisian gross domestic product (GDP) had stagnated around US$45 billion since the global financial crisis in 2008, reaffirming the aforementioned quote by Hinds.[36]

Furthermore, the period when Tunisia recorded its highest unemployment rate of 18 per cent also coincided with the Arab Spring in 2011, providing further reaffirmation to the socio-economic

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[24] Ibid.

[25] Ibid.

[26] Aidan Lewis, 'How unstable is Libya's oil production?' *Reuters*, 17 July 2018, www.reuters.com/article/us-libya-oil-explainer/how-unstable-is-libyas-oil-production-idUSKBN1K61Y6.

[27] Ibid.

[28] Silje Aslaksen, 'Oil and democracy: More than a cross-country correlation?' *Journal of Peace Research*, no. 4 (2010): 422.

[29] Lewis, 'How unstable is Libya's oil production?'

[30] Kellstedt and Whitten, *The fundamentals of political science research*, 55.

[31] Ibid., 56.

[32] Ibid.

[33] Michael L Ross, 'Will oil drown the Arab Spring? Democracy and the resource curse', *Foreign Affairs*, no. 5 (2011).

[34] Róisín Hinds, 'Conflict analysis of Tunisia', (Birmingham, UK: GSDRC, University of Birmingham, 2014), 5.

[35] Ibid.

[36] The World Bank, 'Tunisia', *The World Bank*, data.worldbank.org/country/tunisia (accessed 23 September 2019).

argument.[37] Therefore, despite Tunisia's relatively low resource wealth, it still suffers from the resource curse. This contradictory case study demonstrates that while there is an association between an abundance of hydrocarbons and conflict, there exists no significant covariation between the two variables. Since altering the level of hydrocarbon wealth yields different results for conflict, confounding variables will be explored in the next section.

2.4 Has the analysis controlled for all confounding variables that might make the association between the two variables spurious?

In identifying confounding variables, this section will ascribe to Waldner and Smith's heterodox school of thought on conditionality in the resource curse.[38] According to Herb, 'the heterodox view holds that rents have a mediated (or conditional) effect on outcomes'.[39] A confounding variable is defined by Kellstedt and Whitten to have an effect on both the independent and dependent variables.[40] As such, this section will explore any such third variables that might make the bivariate causal relationship between hydrocarbon wealth and violent conflict spurious.

On analysing these conditional effects on the outcomes of the resource curse under the heterodox school of thought, Herb asserts that:

> the usual assumption, when analysing the political and economic consequences of rent wealth, is to suppose that the consequences are monotonic: an increase in rentierism (however measured) results in an increase in authoritarianism or economic stagnation. Rents, however, might better be thought of as having a conjunctural causal impact. That is, rents in conjunction with one variable may cause one outcome, but in combination with another variable may cause an entirely different outcome.[41]

The confounding variable that will be examined in this section is the type of pre-existing institution in the country, before the discovery of immense hydrocarbon wealth.

To illustrate how pre-existing institutions affect the incidence of conflict in oil-rich regions, the case study of Norway will be explored. Norway is one of the largest exporters of oil in the world, yet it is relatively peaceful. This poses a challenge to the hypothesis of this paper. According to the Institute for Economics and Peace, Norway ranks 20th out of 163 countries in the Global Peace Index (GPI), compared to Iran's GPI rank of 139, Iraq's rank of 159, and Libya's rank of 156.[42] In fact, the MENA region, responsible for a majority of the world's oil production is 'the world's least peaceful area'.[43] Furthermore, despite Norway's immense hydrocarbon wealth, it has maintained extractive institutions (taxing the population) in the country. According to the Economist Intelligence Unit's (EIU) democracy index, Norway has maintained the most robust democracy in the world, scoring a 9.87 out of 10.[44] Contrarily, the MENA region on average scored 3.54 out of 10, which makes it the least democratic region in the world.[45] These indices demonstrate how Norway has remained relatively unscathed by the effects of the resource curse, unlike its oil-exporting peers in the MENA region.

To justify the absence of the resource curse in some countries, Herb asserts that the 'resource curse does not operate in countries which had well-developed political institutions before exporting oil'.[46] This implies that rents in conjunction with well-developed, democratic political institutions will yield a peaceful outcome. However, rents in conjunction with undemocratic institutions will not yield a

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[37] The National Institute of Statistics (Tunisia), 'Employment', www.ins.tn/en/themes/emploi#1909 (accessed 23 September 2019).

[38] David Waldner and Benjamin Smith, 'Rentier states and state transformations', in Stephan Leibfried et al. (eds), *The Oxford handbook of transformations of the state* (Oxford: Oxford University Press, 2015), 714.

[39] Michael Herb, *Ontology and methodology in the study of the resource curse* (London: London School of Economics Kuwait Programme, 2017), 7.

[40] Kellstedt and Whitten, *The fundamentals of political science research*, 63.

[41] Michael Herb, *The wages of oil: Parliaments and economic development in Kuwait and the UAE* (Ithaca: Cornell University Press, 2014).

[42] Institute for Economics and Peace, *Global Peace Index 2018: Measuring peace in a complex world* (Sydney, 2018).

[43] Ibid., 6.

[44] The Economist Intelligence Unit, *Democracy index 2018: Me too?* (The Economist Intelligence Unit, 2019).

[45] Ibid.

[46] Herb, *Ontology and methodology in the study of the resource curse*, 6.

peaceful outcome. Ergo, the level of institutional development, as well as the type of institutions, have a conjunctural causal impact on the incidence of conflict in oil-rich regions.

The case study of Qatar will be explored to counter the aforementioned notion that undemocratic institutions yield a violent outcome in oil-rich regions. EIU's democracy index ranks Qatar 133rd out of the 167 countries analysed, effectively making it authoritarian in nature.[47] Contrarily, it is ranked 31st out of 163 countries on the GPI, making Qatar the most peaceful country in the MENA region.[48] Even the onset of the Arab Spring, which caused violence across the MENA region, barely had an impact on peace in Qatar.[49] The orthodox explanation for this is rentier state theory, wherein the per capita distribution of rents is associated with acquiescence.[50] This is an appropriate assertion to make since Qatar's per capita GDP, adjusted by purchasing power parity as of 2018, is at US$126,597, a figure that balloons to well over US$700,000 per capita when the country's large expatriate population is excluded.[51] This is further reaffirmed through an extrapolation from Moritz's fieldwork, where interviews of Qatari citizens reveal their passive acceptance of the rentier bargain.[52]

> I think Qatar has been stable for many reasons. First of all, the indigenous population is very small. So there is not a critical mass … Number two: normally, if you look at all the countries where actually they had a problem, it was primarily an economic problem, that turned into revolution … they revolted because they had nothing to lose, I mean they could not have been worse than what it was then.
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> Then if you look at Qatar—I can't talk about other countries but in Qatar—you don't see this. So you had good income, you had good government support—you had free electricity for example, free education, free healthcare … So basically there were no good reasons to change the system. Plus people had witnessed what happened [in Egypt and Syria]. It's not a good example … nobody wants to replicate that.[53]

This demonstrates the success of Qatar's allocative governance apparatus in 'buying off' loyalty from citizens. Therefore, hydrocarbon wealth, in a 'weak' state where institutional development is limited and rents are not equitably distributed, will result in a violent outcome. Controlling for these confounding variables will allow for a vindication of the initial hypothesis that an abundance of hydrocarbon wealth leads to violent conflict and popular unrest in the MENA region.

3 Conclusion

In conclusion, oil and gas wealth does lead to violent conflict and popular unrest in the MENA region, if the confounding variables are controlled. To achieve this result, Kellstedt and Whitten's framework for examining causality was used. The causal mechanism that connects hydrocarbon wealth and conflict is the distribution of rents to the population from oil production. Furthermore, the possibility of reverse causality cannot be omitted, given that in countries such as Libya, the presence of conflict prevents the country from exploiting its hydrocarbon wealth. While the Libya case study weakens the causal link between hydrocarbon wealth and conflict, the presence of a weaker effect justifies moving forward with the causal analysis. In terms of the presence of covariation, mixed results emerge. While the case study of Khuzestan shows a region where the simple association between increased hydrocarbon wealth and an increased incidence of conflict holds, Tunisia presents a contradictory case study where reduced hydrocarbon wealth does not decrease the incidence of conflict. Mixed results in the covariation section reveals that an examination of confounding variables is necessary to see whether hydrocarbon wealth in conjunction with another variable leads to increased conflict. In the confounding variables section of

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[47] The Economist Intelligence Unit, *Democracy index 2018: Me too?*

[48] Institute for Economics and Peace, *Global Peace Index 2018: Measuring peace in a complex world.*

[49] Ibid.

[50] Jocelyn Sage Mitchell and Justin J Gengler, 'What money can't buy: Wealth, inequality, and economic satisfaction in the rentier state', *Political Research Quarterly*, no. 1 (2019): 75–89.

[51] The World Bank, 'GDP per capita, PPP (current international $)', *The World Bank*, data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?most_recent_value_desc=true (accessed 22 September 2019).

[52] Jessie A Moritz, 'Slick operators: Revising rentier state theory for the modern Arab states of the Gulf' (PhD thesis, The Australian National University, 2016), 107–12.

[53] Ibid., 108.

this paper, a 'weak' state with limited institutional development and an inequitable distribution of oil rents were identified as the confounding variables between hydrocarbon wealth and conflict. Therefore, the causal relationship between hydrocarbon wealth and conflict is only valid if those confounding variables are controlled for.

The analysis presented in this paper implies that in order to reduce conflict in resource-rich areas, having strong governing institutions and equitable distribution of resource rents is necessary. However, given the Libya and Tunisia case studies, the causal association between resource wealth and conflict is weak. As such, it will be important in future research to identify more confounding variables that help strengthen the causal association between resource wealth and conflict. Revealing a stronger causal association will help strengthen the argument for reform in resource-rich countries to prevent conflict in the future.

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