

# The political economy of Middle East and North Africa oil exporters in times of global decarbonisation

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## ABSTRACT

Endowed with half of the world's known oil and gas reserves, the Middle East and North Africa (MENA) region is a cornerstone of the global energy architecture. This architecture is currently undergoing a structural transformation, prompted by two different forces: decarbonisation policies and low-carbon technology advancements.

The energy literature offers no comprehensive analysis of the potential impact of the global energy transformation on the MENA region. This paper seeks to fill this gap by investigating the following research question: are MENA oil exporting countries equipped to prosper in times of global decarbonisation? Making use of the Rentier State Theory and of a business-as-usual projection of the exploitation of oil resources in MENA countries, we highlight on the lack of incentives for MENA oil exporters to pursue paths of economic diversification.

On the basis of a scenario-based analysis, we illustrate that, should the Paris Agreement on climate change be implemented, MENA oil exporters would see their oil rents decline over the next few decades. MENA oil-exporting countries are still not adequately equipped to prosper in a decarbonising world. Therefore, decarbonisation should represent an incentive for MENA oil exporters to pursue structural processes of transition from rentier to production states.



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## 1. Introduction

Endowed with half of the world's known oil and gas reserves, the Middle East and North Africa (MENA)<sup>1</sup> region became – particularly during the second half of the twentieth century – a cornerstone of the global energy architecture (Yergin, 1991, 2011; Maugeri, 2006).

This architecture is currently undergoing a structural transformation, prompted by two different forces: decarbonisation policies and technological developments.

The adoption and quick entry into force of the Paris Agreement (UNFCCC, 2015) marked a major step forward in global efforts to address global warming (IEA, 2016a). For the first time, developed and developing countries committed to act in order to limit global average temperature increase to well below 2°C, and to pursue efforts to further limit this to 1.5°C above pre-industrial levels. This should reinforce strong decarbonisation measures already being undertaken in different parts of the world, such as in Europe.

Meanwhile, technological advancements have significantly increased the cost-competitiveness of low-carbon technologies such as solar and wind power generation, power storage technologies and electric vehicles (IEA, 2016b; IRENA, 2017). This has already started to reshape the global energy system, notably by giving a greater role to solar and wind in the power generation mix. Global energy outlooks (BP, 2017; EIA, 2017; IEA, 2016a) generally see these trends as continuing in the future. Some outlooks even see these trends further accelerating, leading to a peak in global oil demand in the 2020s (BNEF, 2016; Carbon Tracker, 2017; WEC, 2016).

By transforming the global energy architecture, international decarbonisation policies and technological advancements could have an impact on the world's key oil and gas producing regions, such as the MENA.

Surprisingly, the energy literature presents no comprehensive analysis of the potential impact of the global energy transformation on this region. This paper seeks to fill this gap by investigating the following research question: are MENA oil-exporting countries equipped to prosper in times of global decarbonisation?

We begin with an analysis of the macroeconomic context of the MENA region, showing the persistent over-reliance of MENA oil exporters on the oil rent.

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<sup>1</sup> We define MENA as including the North African countries (Morocco, Algeria, Tunisia, Libya and Egypt), the Levant countries (Jordan, Israel, Lebanon, Syria and Palestine), the Gulf Cooperation Council countries (Bahrain, Kuwait, Oman, Saudi Arabia, Qatar and United Arab Emirates), Iraq and Iran.

The political economy factors standing behind the lack of economic diversification in these countries are then analysed, particularly through the analytical lens of the Rentier State Theory (RST).

By proposing a scenario-based analysis, we then illustrate the potential impact of global decarbonisation on MENA oil exporters. This allows us to illustrate the incompatibility of current MENA oil exporters' macroeconomic models with a global decarbonisation pathway consistent with the Paris Agreement.

Finally, we argue that MENA oil exporters should consider economic diversification as a structural pathway to be pursued in order to ensure their future economic and political stability, even in a decarbonising world.

## **2. The macroeconomic context of the MENA region**

### *2.1 Composition of GDP, fiscal revenues and exports*

The MENA region presents a heterogeneous macroeconomic context, which reflects the irregular distribution of oil resources throughout the region<sup>2</sup>.

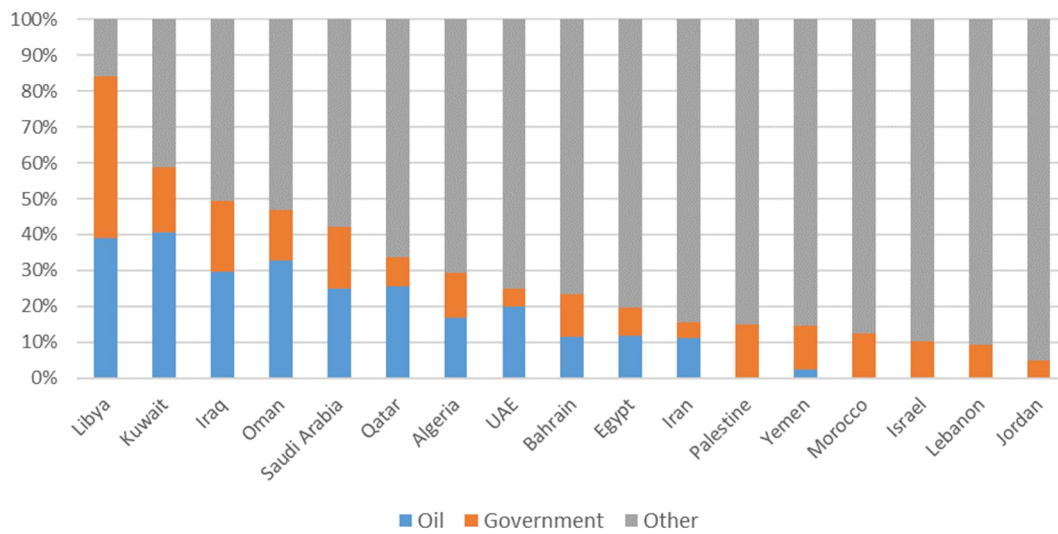
For five regional oil exporters (Libya, Kuwait, Iraq, Oman, Saudi Arabia), more than 40 percent of their GDP is based on oil and on government activities that are heavily funded from oil revenues. In four other oil exporters (Qatar, Algeria, UAE, Bahrain) this share varies between 40 percent and 20 percent (Figure 1).

In all these countries, activities in non-oil and non-government sectors are also often linked to oil and government activities. The main sources of manufacturing value-added tend to include refinery, chemical and other mining/extractive industries, while some non-oil sectors, such as construction, depend heavily on government contacts (IMF, 2016a).

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<sup>2</sup> For simplicity, the article uses the term 'oil' to mean hydrocarbons. In some countries (eg Algeria, Qatar), hydrocarbon production includes a significant share of gas.

**Figure 1: GDP composition of MENA countries, 2016**



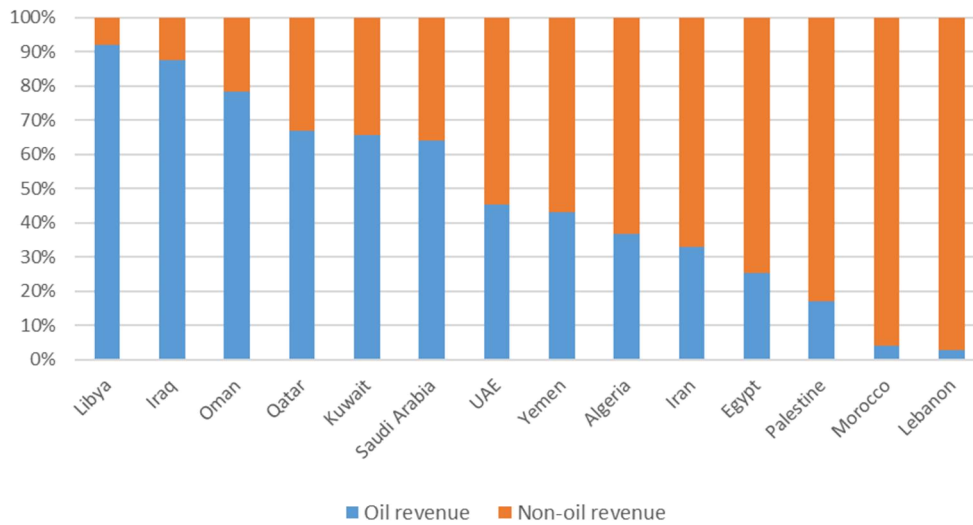
Source: Bruegel based on International Monetary Fund, World Economic Outlook database, accessed in February 2017.  
 Note: data on Libya refers to 2014.

In the same oil-exporting countries, oil is the primary source of fiscal revenues (Figure 2), and non-oil fiscal revenues are themselves mainly related to oil.

For instance, direct oil revenues in Qatar amount to about 67 percent of total fiscal revenue, but more than 90 percent of total fiscal revenue should be considered as oil revenue, because practically all investment income and the bulk of corporate income tax comes from Qatar Petroleum<sup>3</sup>. In Qatar, non-oil fiscal revenues only derive from corporate income tax of 10 percent levied on foreign companies, withholding tax of 5 percent to 7 percent levied on certain payments to non-residents, customs duties of 5 percent, and some fees (IMF, 2015).

<sup>3</sup> Qatar's largest public enterprise comprising upstream and downstream hydrocarbon companies.

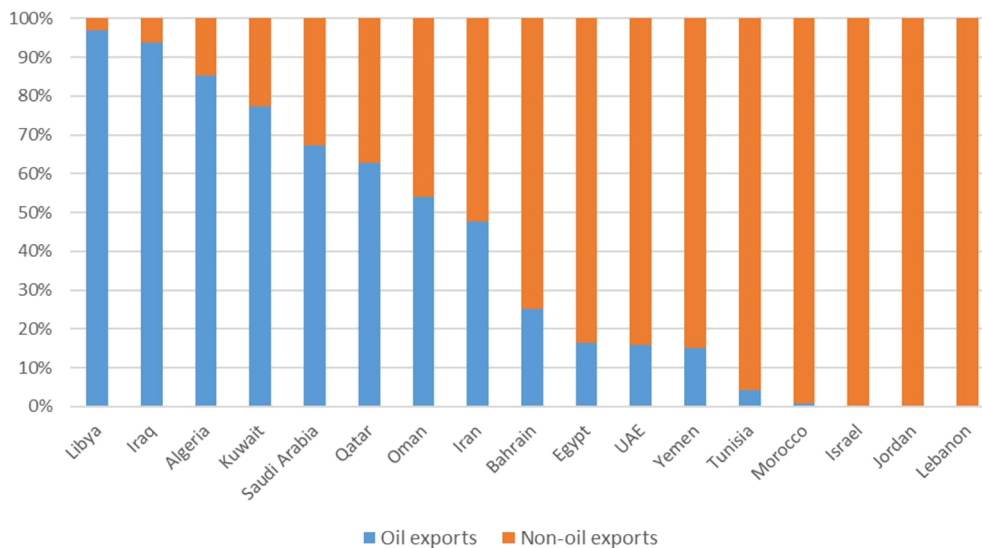
**Figure 2: Oil and non-oil fiscal revenue in selected MENA countries, 2016 (% of general government revenue)**



Source: Bruegel based on International Monetary Fund, World Economic Outlook database, accessed in February 2017.  
 Note: data on Libya refers to 2014.

Oil makes up more than 50 percent of total exports from MENA oil exporting countries (Figure 3). This further illustrates the predominance of the oil sector in these economies, and their consequently limited level of economic diversification<sup>4</sup>.

**Figure 3: Oil and non-oil exports in MENA countries, 2016**



Source: Bruegel based on International Monetary Fund, World Economic Outlook database, accessed in February 2017.  
 Note: data on Libya refers to 2014.

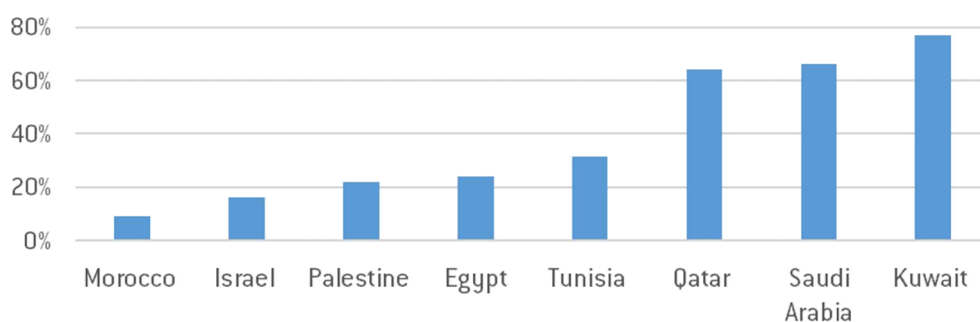
<sup>4</sup> It should be noted that the low shares of oil in exports from the UAE and Bahrain are because non-oil exports include a large share of re-exports (IMF, 2016a).

## 2.2 Employment and labour productivity

The compositions of GDP, fiscal revenues and exports illustrate how oil represents a fundamental difference in the MENA macroeconomic context between oil exporters and oil importers. But oil also impacts other macroeconomic variables, such as employment and labour productivity.

In oil-exporting countries such as Kuwait, Saudi Arabia and Qatar, more than 60 percent of nationals are employed in the public sector. This situation substantially differs from that in MENA oil-importing countries, where a far more limited share of working populations is employed in the public sector (Figure 4).

**Figure 4:** Public sector employment in selected MENA countries (% of total employment of nationals)

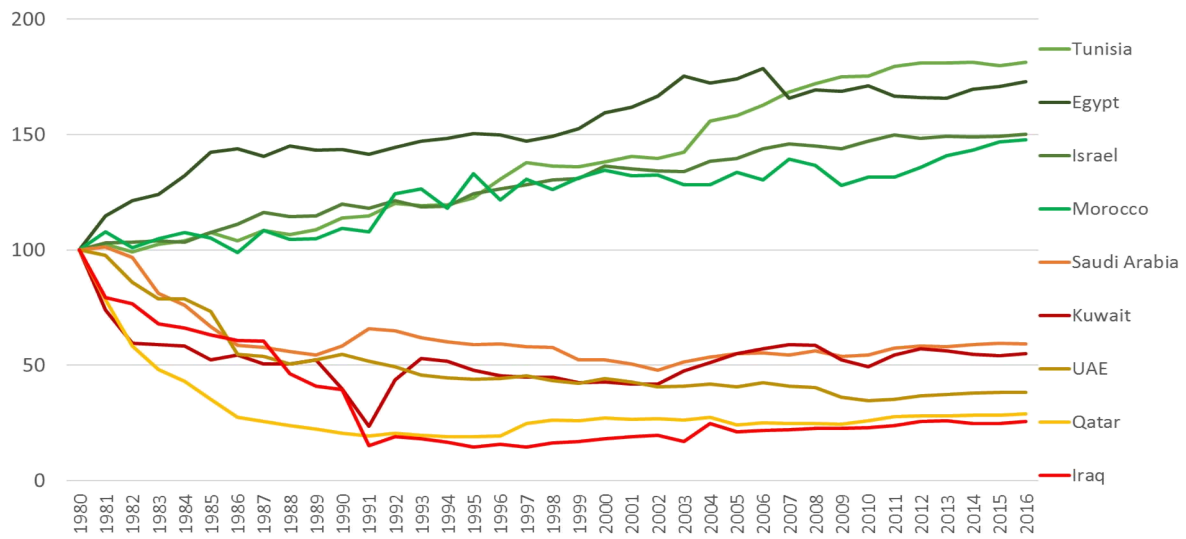


Source: Bruegel based on International Labour Organization, ILOSTAT database, accessed in February 2017.

High shares of public employment, generally characterised by protected jobs with high wages (WEF, 2014), have contributed to lower the labour productivity of MENA oil-exporting countries.

This trend has become more entrenched since the 1980s, as MENA oil exporters have increasingly imported cheap non-national labour, reducing labour productivity also in the private sector. As a result, the trajectories of labour productivity in MENA oil exporters and oil importers have profoundly diverged over the last few decades (Figure 5).

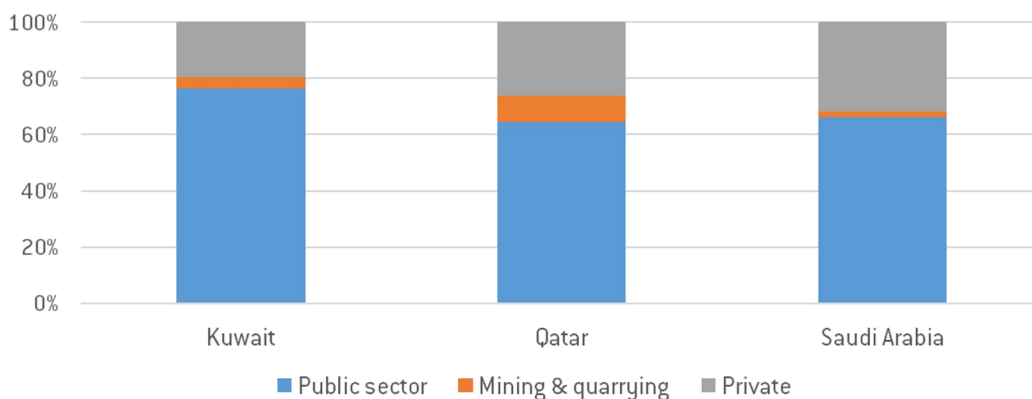
**Figure 5: Labour productivity in selected MENA countries (Index: 1980=100)**



Source: Bruegel based on The Conference Board, Total Economy database, accessed in February 2017.

This low level of labour productivity is one of the major barriers for economic diversification in MENA oil exporters (Hertog, 2013). It prevents the development of an internationally-competitive private sector. Furthermore, it should be outlined that high shares of nationals employed in the public sectors of oil-exporting countries go in tandem with small shares of nationals employed in the oil sector (Figure 6).

**Figure 6: Employment of nationals in the public sector, mining and quarrying, and the private sector, selected countries**



Source: Bruegel based on Gulf Cooperation Council, Statistical Centre, accessed in February 2017.

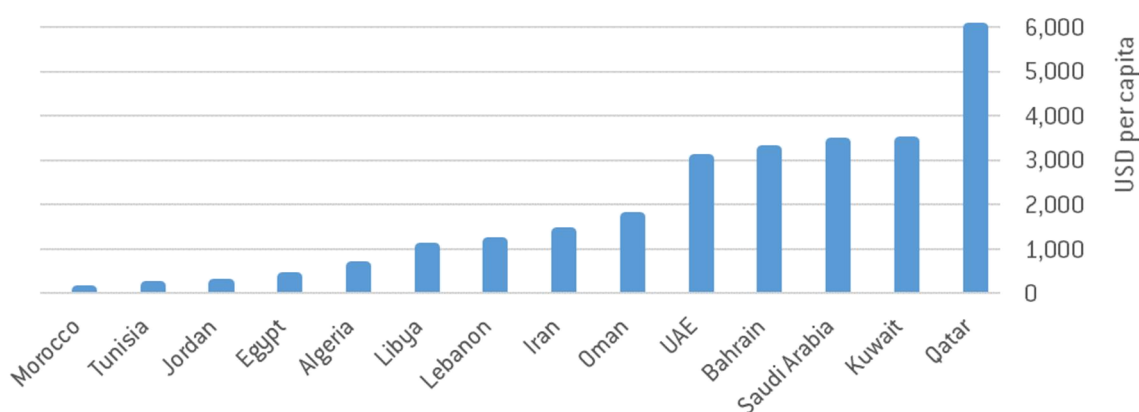
This is an important aspect of the social contract in MENA oil-exporting countries, because it shows that only a small fraction of each national population contributes to the generation of the rent that is

used to financially support the vast majority of each population. The support is mainly based on oversized public sectors, but also on expensive and economically inefficient subsidy schemes, such as those for energy.

### 2.3 Energy subsidies and consequent energy inefficiency

Oil exporters such as Qatar, Kuwait, Saudi Arabia, Bahrain and the UAE are the regional frontrunners in terms of deploying energy subsidies. By contrast, oil-importing countries such as Morocco, Tunisia, Jordan and Egypt have the lowest levels of energy subsidies per capita in the region (Figure 7).

**Figure 7: Post-tax energy subsidies in selected MENA countries, 2015**



Source: Bruegel based on International Monetary Fund, World Economic Outlook database, accessed in February 2017.

From an economic perspective, high energy subsidies generate significant economic losses, because oil resources are sold domestically at a fraction of their international market value.

From an energy perspective, energy subsidies distort the economics of energy and the price signals of energy resources, holding back the competitiveness of renewable energy sources. Furthermore, energy subsidies lead to the inefficient allocation of resources and to market distortions, by encouraging rent-seeking behaviour and thus excessive production or consumption.

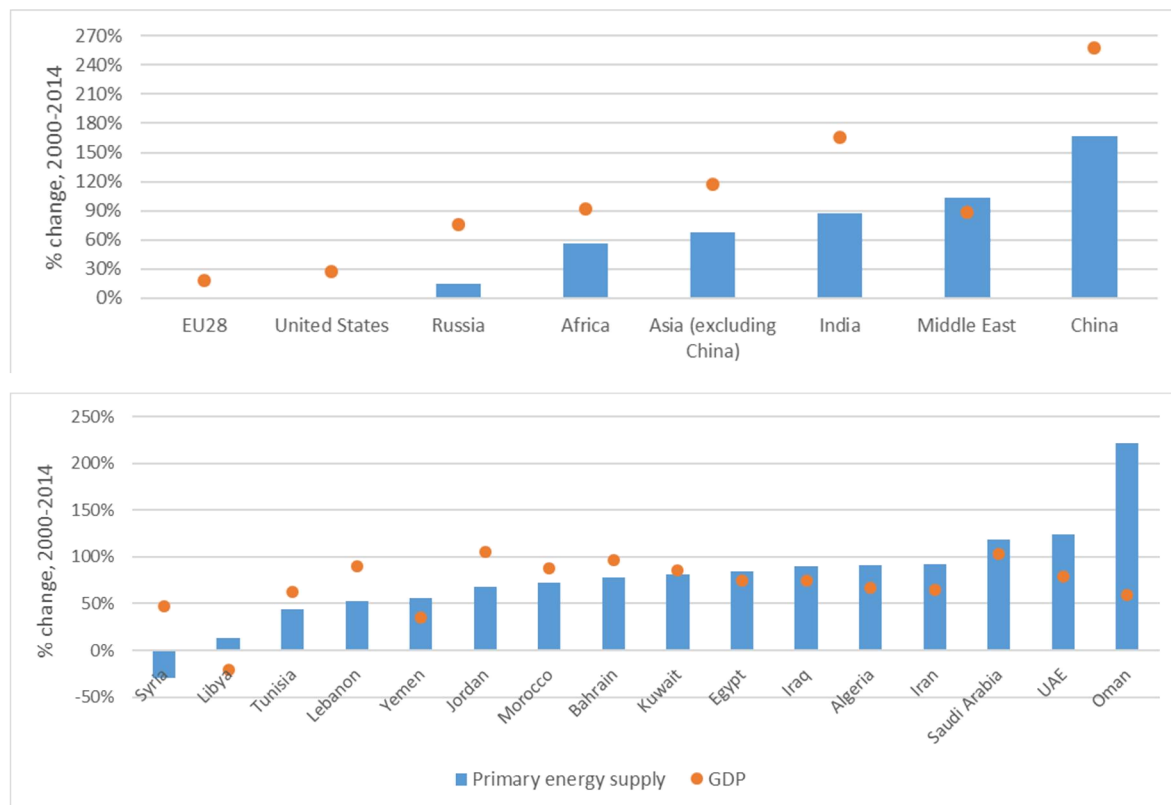
Not by coincidence, the region is as the least energy-efficient in the world (Figure 8, top panel)<sup>5</sup>. Figure 8 (bottom panel), shows the gap between MENA oil exporters and oil importers. Oil importers such as Morocco, Jordan, Lebanon, Tunisia and Syria managed to expand their economies between 2000 and

<sup>5</sup> For a comprehensive review of MENA energy markets and policies, see Griffiths *et al* (2017). For a study on the possibilities for sustainable modernisation of rentier states, see Reiche (2010). For an analysis of the incentives for energy efficiency in fuel-rich states, see Friedrichs and Inderwildi (2013).



2014 consuming proportionally less energy, while in oil-exporting countries – with only the feeble exceptions of Bahrain and Kuwait – energy consumption has generally outpaced economic growth.

**Figure 8: Percentage changes in primary energy supply and GDP, 2000-2014**



Source: Bruegel based on International Monetary Fund, World Economic Outlook database, accessed in February 2017 and International Energy Agency, World Energy Balances database, accessed in February 2017.

This *excursus* through the macroeconomic context of the MENA region illustrates the persistent over-reliance of oil-exporting countries on the oil rent. It also sheds light on the peculiar interplay between oil, economics and politics in MENA oil-exporting countries, which we now examine.

### 3. Understanding the interplay of oil, economics and politics in MENA oil exporters

#### 3.1 Political economy literature

Since the 1950s, the political economy literature has developed a lively debate on the interplay of natural resources – notably oil – with economic growth and socio-political development.

Raul Prebisch (1950) investigated through his Dependency Theory the reasons why economic growth in advanced industrialised countries does not necessarily lead to growth in poorer countries and can

even lead to serious economic problems in these countries. Prebisch explained the phenomenon by exports of primary commodities from poor to rich countries, which then manufacture products from those commodities, to be finally sold back to the same poorer countries. Because the value added from manufacturing a usable product is higher than the value of the commodities, poorer countries are never be earn enough from their exports to pay for their imports – therefore prolonging their situation of economic underdevelopment.

Richard M. Auty (1993) formulated the Resource Curse Theory to describe the reasons why natural resource-abundant countries often perform poorly in economic and political terms. He claimed this can happen for several reasons, such as the presence of weak institutions, commodity price volatility, conflicts and the so-called ‘Dutch disease’ – a perverse mechanism by which the increased revenues from natural resource discoveries lead to appreciation of the local currency, thus negatively affecting the exports of all other sectors in the economy<sup>6</sup>.

Jeffrey Sachs and Andrew Warner (1995) built on this analysis, further demonstrating a strong correlation between natural resource abundance and poor economic growth.

### *3.2 The Rentier State Theory*

Special attention should be paid to the RST, which has emerged as a unique analytical framework to understand the interplay of oil, economic and political structures in MENA oil exporters.

The RST was first postulated by Hussein Mahdavy in 1970, in the context of a discussion on the evolution of economic development in the Middle East in general, and in Iran in particular. Mahdavy (1970) defined as rentier states those countries that receive on a regular basis substantial amounts of external rents, which have little to do with the production processes in their domestic economies<sup>7</sup>.

Building on Mahdavy’s seminal study, Hussein Beblawi and Giacomo Luciani in 1987 systematised the RST, and developed it into a widely-accepted tool to interpret the MENA political economy and – more broadly– the political economies of all the world’s oil-producing countries (Abulof, 2015; Smith, 2004; Tsui, 2009; Shambayati, 1994; Ross, 2012; Okruhlik, 1999; Karl, 1997; Jenkins, 2011; Herb, 2005; Cooley, 2001; Gray, 2011; Apergis and Payne, 2014; Chatham House, 2016).

According to the theoretical framework proposed by Beblawi (1987), a rentier state:

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<sup>6</sup> See also: Ross (1999), Ross, Kaiser and Mazaheri (2011), Collier and Hoeffler (2005).

<sup>7</sup> “The inputs from the local economies – other than the raw materials – are insignificant. [...] The input requirements of the oil industry from the local economies – at least for the inputs that have an opportunity cost – is so insignificant that for all practical purposes one can consider oil revenues almost as a free gift of nature or as a grant from foreign sources,” Mahdavy (1970, pp. 428-429).

- i) Relies on substantial external rent to sustain the economy, reducing the pressure to develop a strong productive domestic sector;
- ii) Has a small proportion of the population engaged in the generation of the rent, while the majority of the population is only involved in the distribution or in the utilisation of it;
- iii) Its government is the principal recipient of the external rent.

On the basis of the macroeconomic features illustrated in section 2, MENA oil-exporting countries are clearly rentier states *par excellence*. But how does this situation impact the political structures of these countries?

The conventional role of the state in providing public goods through taxation blurs in rentier states, as the role of the state becomes providing private favours through the ruler's benevolence.

The fundamental principle of democracy, 'No taxation without representation', finds in rentier states its mirror image, 'No representation without taxation'. That is, untaxed citizens are less likely to demand political participation.

Beblawi (1987), recalling previous Mahdavy's reflections, also highlighted that a rentier state economy creates a specific mentality – a rentier mentality – on which income is not related to work and risk bearing, but to chance or situation. This is also a reason why, according to Beblawi, rentier states tend to give rise to second-order rents, such as real estate and financial speculation.

Luciani (1987) expanded Beblawi's analysis, focusing on the key function of the state in rentier countries to understand the more profound interlinks between oil, economics and politics.

Luciani outlined that rentier states might also be defined as allocation states because their key function is to allocate the income received from the rest of the world to their populations.

This allocation function of rentier states profoundly differs from that of production states, which have to subtract – via taxation – resources from those that originally possess them, and reallocate them to others in the society on the basis of an asserted common interest.

From the economic perspective, growth in the domestic economy is not a precondition for the existence and expansion of a rentier state. However, economic growth is an essential precondition for the existence and development of a production state.

From the political perspective, being financially independent from its society, a rentier (or allocation) state does not need to seek legitimacy through democratic representation. By contrast, because of its reliance on taxation, a production state needs the acceptance of its population.

The structure of rentier states is thus peculiar, and does not offer a clear long-term evolutionary pattern. However, Luciani proposed two main scenarios for the long-term evolution of these states:

- i) Rentier states might structurally pursue a process of diversification of their domestic economic bases and gradually turn into production states;
- ii) Rentier states might continue unchanged until the last drop of oil is exported, and then simply fold up, with most citizens having accumulated enough of a fortune to allow them to live elsewhere.

A fundamental point to be considered is that, because their main economic foundation – oil – is a finite resource, rentier states necessarily represent a passing phenomenon.

But how fast in passing? In 1987, Luciani answered this question by estimating that rentier states could count on another five or six decades of good life.

However, since 1987 a previously unforeseeable development has emerged, putting rentier states' oil resources at risk of being stranded well before they are depleted: international decarbonisation policies. It is thus important to assess the potential impact of these policies on MENA oil exporters to understand their future outlook.

#### **4. Assessing the potential impact of global decarbonisation on MENA oil exporters**

##### *4.1 As if there had been no Paris Agreement: a business-as-usual projection*

The macroeconomic indicators presented in section 2 illustrate the persistently high reliance of MENA oil-exporting countries on the oil rent. MENA oil exporters therefore seem to have opted, so far, for Luciani's second scenario (ie until the last drop), rather than for the first (ie structural diversification).

In a business-as-usual scenario – free of the need for global decarbonisation or the technological developments described in section 1 – this option might seem reasonable.

Since the 1980s, global oil demand has constantly risen, while between 2000 and 2014 oil prices boomed. In such a favourable context, MENA oil exporters have had little incentive to diversify their economies, and to evolve from rentier to production states.

With global markets demanding increasing volumes of oil, and even at increasing prices – at least up to 2014 – why would MENA oil exporters change course and put at risk their established social contracts?

After all, should oil production continue at current levels, MENA oil exporters still have a long way to go before depleting their reserves (Table 1).

**Table 1:** *Projected years of future oil and gas production at 2015 reserve level and average production of last 5 years*

	Oil	Gas
Algeria	21	55
Iran	111	196
Iraq	120	>200
Kuwait	90	118
Libya	170	137
Oman	16	21
Qatar	37	147
Saudi Arabia	63	83
United Arab Emirates	75	112

Source: Bruegel based on BP (2016).

This favourable context has led MENA oil exporters to perpetuate their rentier models (Tagliapietra *et al*, 2014), and to seek the creation of second order rents (ie real estate and financial speculation) already envisaged by Beblawi, as the rise and evolution of sovereign wealth funds in the region illustrates<sup>8</sup>.

#### *4.2 The new scenario, between decarbonisation policies and technological innovation*

Because of decarbonisation policies and technological innovation, these reserves might become stranded before they are depleted.

This is particularly the case for oil reserves. For gas the situation is different because gas is an important component of global decarbonisation because of its key role in displacing coal from the energy mix<sup>9</sup>.

With the Paris Agreement, global leaders have committed to strengthening the global response to the threat of global warming by keeping the global temperature rise this century well below 2°C above pre-industrial levels. Climate scientists have estimated that, to have at least a 50 percent chance of keeping the global temperature rise below 2°C throughout the century, the cumulative carbon

<sup>8</sup> See Tagliapietra (2012) and Bahgat (2011).

<sup>9</sup> See, for instance, IEA (2016a), McGlade and Ekins (2015) and Carraro *et al*(2014).

emissions between 2011 and 2050 need to be limited to around 1,100 gigatonnes of carbon dioxide (GtCO<sub>2</sub>) (Meinshausen *et al*, 2009).

Greenhouse gas (GHG) emissions contained in the present estimates of global fossil fuel reserves are estimated to be about three times greater than the global carbon budget (Meinshausen, 2009; Raupach, 2014).

On this basis, McGlade and Ekins (2015) explored the implications of this emissions limit for fossil fuel production in different world regions. According to their study, a third of global oil reserves, half of gas reserves and over 80 percent of current coal reserves should remain unused from 2010 to 2050 in order to stay within the 2°C target. In this context, they estimate the Middle East to be able to exploit only about 60 percent of its oil reserves – leaving more than 260 billion barrels underground – and about 40 percent of its gas reserves (McGlade and Ekins, 2015, p. 189).

To understand the potential impact of such a scenario on MENA oil exporters, it is useful to take into consideration two scenarios developed by the IEA (2016a):

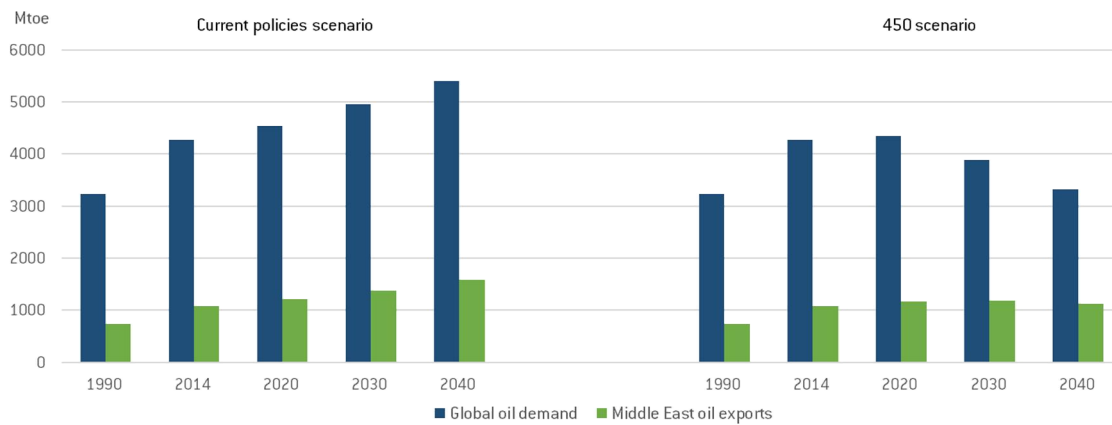
- i) The Current Policies Scenario, which assumes no changes in current energy policies;
- ii) The 450 Scenario, which sets out an energy pathway consistent with the goal of limiting the global increase in temperature to 2°C.

In the Current Policy Scenario, the IEA expects global oil demand to increase over the next three decades, and Middle Eastern oil exports to correspondingly increase.

In the 450 Scenario, the IEA expects global oil demand to sharply fall after 2020, but expects Middle Eastern oil exports to remain stable at their 2020 level well into 2040 (Figure 9).

This stable export level, in the context of declining global demand, derives from the competitiveness of Middle Eastern oil, for which production costs are expected to remain lower than for other global conventional and unconventional sources.

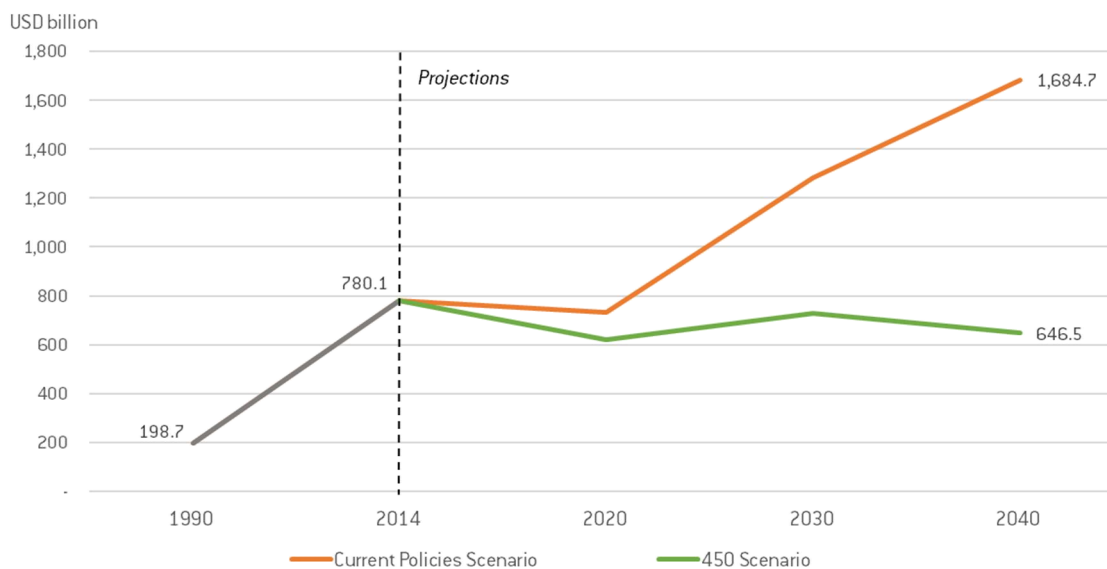
**Figure 9: Global oil demand and Middle East oil exports in IEA scenarios**



Source: Bruegel based on International Energy Agency (2016).

In terms of export volumes, MENA oil exporters could thus be seen as rather resilient to a decarbonisation scenario. However, as revenues are a function of both volumes and prices, it is necessary also to take into consideration the IEA's different projections for oil prices in the three scenarios. This shows that, even if Middle Eastern oil exports were to remain stable over the next three decades, oil revenues would decline by 2040 as a result of the lower oil prices expected in the 450 Scenario (Figure 10).

**Figure 10: Middle East forecasted oil revenues, IEA scenarios (real prices)**

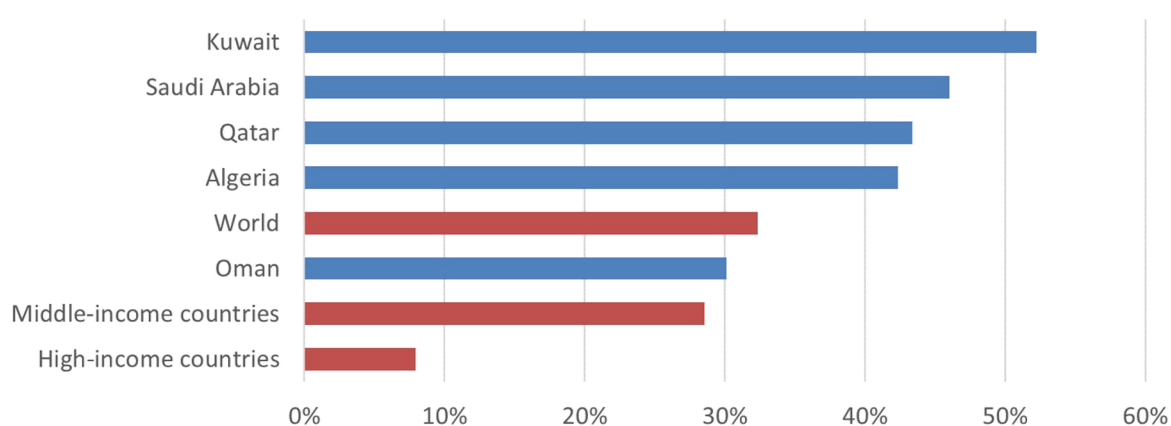


Source: Bruegel based on International Energy Agency (2016).

Such a development would represent an unprecedented challenge for MENA oil exporters. Their entire economic and socio-political models would need to structurally change in order to adapt to the new reality.

This change would also come at a time of strong demographic expansion in all these countries (Figure 11), a feature that would put additional pressure on governments and make the transition from rentier to production states even more complex.

**Figure 11:** *Probabilistic projections of population growth between 2015 and 2050 for selected MENA oil exporters and world's averages*



Source: Bruegel based on United Nations, World Population Prospects database, accessed in February 2017.

## 5. Conclusions

This study has illustrated the persistent over-reliance of MENA oil-exporting countries on the oil rent.

Making use of the analytical framework provided by the RST, it has shed light on the delicate equilibrium underpinning the interplay of oil, economics and politics in these countries.

This analysis, combined with a business-as-usual projection of the exploitation of oil resources in MENA countries, sheds light on the lack of incentives for MENA oil exporters to pursue paths of economic diversification.

Finally, by proposing a scenario-based analysis, the study has illustrated the potential impact of global decarbonisation policies on MENA oil exporters. This shows that, should the Paris Agreement be implemented, MENA oil exporters would see their oil rents decline over the next few decades. This would happen in a time of strong demographic expansion in these countries.



This analysis shows that MENA oil exporting countries are still not adequately equipped to prosper in a decarbonising world. Therefore, decarbonisation should represent an incentive for MENA oil exporters to pursue structural processes of diversification from rentier to production states (Luciani, 1987).

The drop in oil prices that started in 2014 has functioned as a catalyst for new thinking throughout the MENA oil exporters about the unsustainability of their high reliance on oil and about the consequent needs for economic diversification (El-Katiri, 2016).

All regional oil exporters have adopted economic diversification strategies<sup>10</sup> (Table 2), generally based on the targets of increasing the private sector's role in the economy, developing small and medium enterprises (SMEs), creating jobs, investing in education and innovation.

These strategies reflect the economic policy guidelines generally directed to MENA oil exporters by international organisations (International Monetary Fund, 2016a, 2016b; 2016c; Organisation for the Economic Cooperation and Development, 2016; World Bank, 2012, 2016) and academics (Luciani, 2012; Hvidt, 2013; al-Khatteeb, 2015; Ben Ali, 2016).

However, it should be outlined that these kinds of economic diversification plans have been part of MENA oil exporters' rhetoric for a long time. For instance, Kuwait's government was already discussing the need for economic diversification during the 1950s. After 60 years, oil continues to represent more than 60 percent of Kuwait's GDP, and more than 70 percent of its fiscal revenues.

MENA oil exporters have often set out similar strategies in times of low oil prices, and then rapidly dismissed them once prices recovered. As Hvidt (2013) outlines, MENA rentier states easily give up their well-argued and planned policies when under pressure and fall back on established ways of doing business, namely through patronage and the predominant role of the public sector. There is, therefore, a risk that current strategies could also be quickly forgotten if/once oil prices recover from the current low levels (IEA, 2017).

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<sup>10</sup> With the only exception of Libya, because of the ongoing civil war.

**Table 2: MENA rentier states' and Algeria's economic diversification strategies: key targets**

<b>Algeria – New Economic Growth Model (2016-2019) (Launched in 2016)</b>
<ul style="list-style-type: none"> <li>• Boost non-hydrocarbon exports to 9 percent of total exports by 2019, from less than 5 percent currently</li> </ul>
<b>Iraq – Private Sector Development Strategy (2014-2030) (Launched in 2014)</b>
<ul style="list-style-type: none"> <li>• Increase the private sector up to a share of 60 percent of GDP by 2030</li> <li>• Improve the country's business environment, particularly for SMEs</li> <li>• Reduce the unemployment rate to 4 percent or less by 2030</li> </ul>
<b>Kuwait – Kuwait Development Plan (2015-2020) (Launched in 2015)</b>
<ul style="list-style-type: none"> <li>• Increase the private sector up to a share of 40 percent of GDP by 2020</li> <li>• Creation of public-private partnerships to carry out infrastructure projects</li> <li>• Increase the number of Kuwaiti employees in the private sector from 92,000 to 137,000 by 2020</li> </ul>
<b>Oman – Ninth Five-Year Development Plan (2016-2020) (Launched in 2016)</b>
<ul style="list-style-type: none"> <li>• Reduce the contribution of oil in GDP at current prices from 44 percent in 8th five-year plan to 26 percent by 2020</li> <li>• Focus on the private sector and activate public-private partnerships</li> <li>• Create job opportunities</li> <li>• Focus on SMEs</li> </ul>
<b>Qatar – National Vision 2030 (Launched in 2008)</b>
<ul style="list-style-type: none"> <li>• Increase and diversify the participation of Qataris in the workforce</li> <li>• Create a business climate capable of stimulating national and foreign investments</li> <li>• Managing the optimum exploitation of hydrocarbon resources</li> <li>• Expanding industries and services with competitive advantages derived from hydrocarbon industries</li> <li>• Create a knowledge-based economy characterised by innovation, entrepreneurship and excellence</li> </ul>
<b>Saudi Arabia – Vision 2030 (Launched in 2016)</b>
<ul style="list-style-type: none"> <li>• Increase SME contribution to GDP from 20 percent to 35 percent by 2030</li> <li>• Increase foreign direct investment from 3.8 percent to the level of 5.7 percent of GDP by 2030</li> <li>• Increase the private sector's contribution from 40 percent to 65 percent of GDP by 2030</li> <li>• Raise the share of non-oil exports in non-oil GDP from 16 percent to 50 percent by 2030</li> <li>• Increase non-oil government revenue from SAR 163 billion to SAR 1 trillion by 2030</li> <li>• Generate 9.5 GW of new renewable energy by 2030</li> </ul>

Source: Bruegel based on Kingdom of Saudi Arabia (2016), People's Democratic Republic of Algeria's Prime Minister's Office (2016), Republic of Iraq (2014), State of Kuwait (2015), State of Qatar's General Secretariat For Development Planning (2008) and Sultanate of Oman (2016).

This problem is further exacerbated by the fact that when oil prices are high, non-oil exporting and import-substituting sectors of the economy become less competitive, because the exchange rate appreciates. Being aware of this problem, private investors tend not to invest in non-oil sectors, even

when oil prices are low. This creates a vicious cycle that helps to explain MENA oil exporters' small private sectors. However, there are remedies to this problem. For instance, sovereign wealth funds could be used to strategically invest in the creation of productive domestic private sectors, instead of being used as tools to perpetuate the rent via financial or real estate speculation. Of course, to be implemented, such strategies require strong governance and forward-looking visions on the part of governments.

This study has illustrated that MENA oil exporters are still not equipped to sustain themselves – let alone to grow and develop – in a rapidly decarbonising world, being still over-reliant on the oil rent. It is, therefore, possible to conclude that MENA oil exporters should look at international decarbonisation policies and at low-carbon technology advancements as an opportunity to develop forward-looking strategies to transform their economies.

This transformation should be considered by MENA oil exporters as a structural path, to be pursued without deviation in order to ensure both political stability and socio-economic prosperity – even in a decarbonising world. Should the world factually pursue the decarbonisation pathway agreed in Paris and should MENA oil exporters continue to be unprepared for that, the consequences could be dramatic, socio-economically and geopolitically, for the MENA region and the overall global order.

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