

Economic Diversification, Oil Revenue Management, and Industrial Policy in the Middle East and North Africa

Amir Lebdioui

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MANAGEMENT, AND INDUSTRIAL POLICY IN THE
MIDDLE EAST AND NORTH AFRICA**

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Abstract

This paper investigates the political economy of resource revenue management in the context of an extremely high need for economic diversification across several countries in the Middle East and North Africa. This paper find that across the board, resource-rich MENA countries have tended to spend their resource revenues generated by the last commodity boom by fueling domestic consumption, both at the public sector and private level, rather than for investment to increase the productivity of non-resource tradable sectors.

This paper further argues that that the standard policy advice on managing resource revenues, which has been dominated by a short-term emphasis on consumption, fiscal stabilization and market equilibrium at the expense of long term structural change, is unsuitable in the context of an urgent need for diversification in MENA oil exporters.

This paper also highlights important differences in the political economy of resource rents management according to the level of resource rent per capita: ‘Medium resource rich countries’, such as Algeria, Iran or Iraq, cannot afford to achieve growth and employment by pursuing the resource revenue management model currently followed by countries such as Kuwait, Qatar, Saudi Arabia and the UAE, which is more based on financial diversification, rents distribution through public sector employment and consumption subsidies, rather than the transformation of the domestic productive structure. Although all MENA exports need to diversify their economies, the opportunity costs of investments in financial assets overseas rather than real assets domestically varies across countries.

This study concludes by outlining a resource revenue management model that is more adapted to the context of the various oil-dependent economies of the MENA region.

Keywords: Economic Diversification, MENA, oil wealth, industrial policy.

JEL Classifications: O13, O14, O35, O53, Q32, Q35.

*“Give a man a fish and you feed him for a day;
Teach a man to fish and you feed him for a lifetime”
(Maimonides, 12th Century)*

1. Introduction

Since the 20th century, the political economy of development in the Middle East and North Africa has been marked by the discovery of large petroleum endowments. While such resource endowments have enabled to increase living standards and consumption in several MENA countries, high degrees of commodity dependence and an acute exposure to commodity price fluctuations remain serious challenges to address. In other words, the populations of resource-rich MENA countries have generally been fed a lot of fish, but have been offered very little opportunities to learn how to fish to sustain themselves in the long-term.

The collapse in oil prices since 2014 has put diversification back as a policy priority in many petroleum exporting countries of the region. However, few of them have successfully managed to diversify their economies in the past. Given the high levels of resource rents in the region, one of the main development challenge in the region consists in using natural resource revenues as a lever to economic development. The management of revenues from exhaustible natural resources involves a number of interrelated challenges, such as inter-generational equity, commodity price volatility, diversification away from resource dependence, environmental sustainability and shared prosperity. Nevertheless, how and where should resource revenues be invested in remains the source of a contentious debate.

This paper has three objectives and analytical contributions. It aims to explain why the mainstream models of resource revenue management may not be suitable in the context of the MENA region. The Nowegian model of resource revenue management has been praised by a plethora of economists and political economists which have called for it to be applied in MENA countries (Beutel, 2019; Nore, 2019). However, Chang and Lebdioui (2020) argue that the standard policy advice on managing resource revenues, based on the permanent income hypothesis, is dominated by a short-term emphasis on consumption, fiscal stabilization and market equilibrium at the expense of long term structural change. As a result, such approaches have only addressed the symptoms of the resource curse (vulnerability to commodity price volatility) but not its root cause (productive dependence on commodities). Such approach is therefore unsuitable to the context of resource-dependent countries of the MENA region.

This paper find that across the board, resource-rich countries in the MENA region have tended to spend their resource revenues generated by the last commodity boom by fueling domestic consumption, both at the public sector and private level, rather than for investment to increase the productivity of non-resource tradable sectors. This paper also investigates the different factors that influence resource revenue management strategies *within* MENA

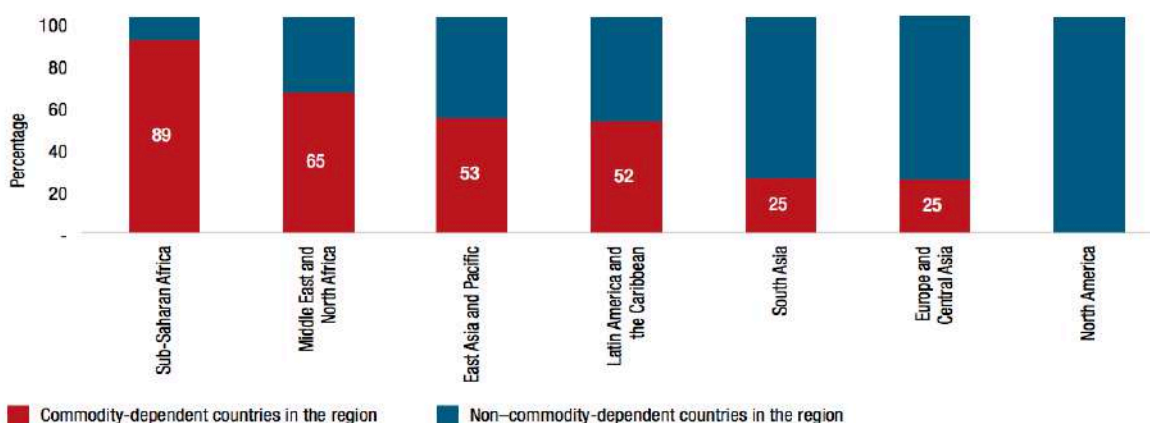
countries. Building on some of the existing work on the topic, this paper argues that there are key differences in the political economy of diversification within the MENA region, and explains why countries such as Algeria or Iran do not have the same needs in terms of resource revenue management models as countries such as Qatar, the UAE or Kuwait.

In section 2, I provide an overview of resource wealth, dependence, and industrialisation outcomes across the MENA region. In section 3, I discuss several options for managing resource revenues and their implications for economic diversification. In section 4, I investigate resource revenue management strategies and outcomes in the MENA region, while section 5 highlights a resource revenue approach developed in Chang and Lebdioui (2020) that is more suitable to the context of MENA countries than the standard policy advice, which has tended to focus on short term fiscal stabilisation at the expense of long term structural transformation.

2. Overview of extractive dependence in MENA countries

This section provides a landscape of resource abundance, resource dependence, and industrialization in the MENA region. A staggering 34% of all energy dependent countries in the world are located in the MENA region (UNCTAD, 2019).¹ In addition, almost two thirds of the countries in the Middle East and North Africa are commodity dependent, which ranks it the second most resource-dependent region after Sub-Saharan Africa (see figure 1).

Figure 1. Distribution of commodity dependent countries within each region (2013-2017)

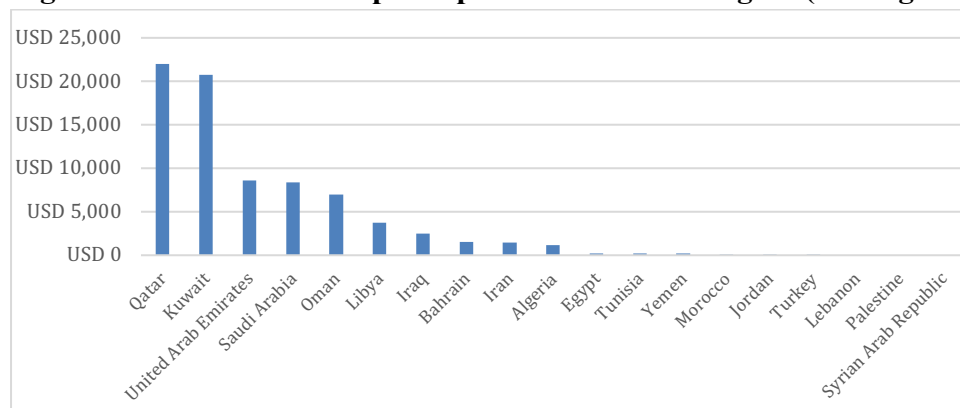


Source: UNCTAD 2019

We can identify three levels of resource abundance in the MENA region (see figure 2). As argued later in this paper, the variations in the degree of resource wealth per capita have considerable implications on the political economy of diversification in the region.

¹ UNCTAD (2019) considers a country to be export-commodity-dependent when more than 60% of its total merchandise exports are composed of commodities. Globally, 32 countries are energy dependent and 11 of those are in the MENA region.

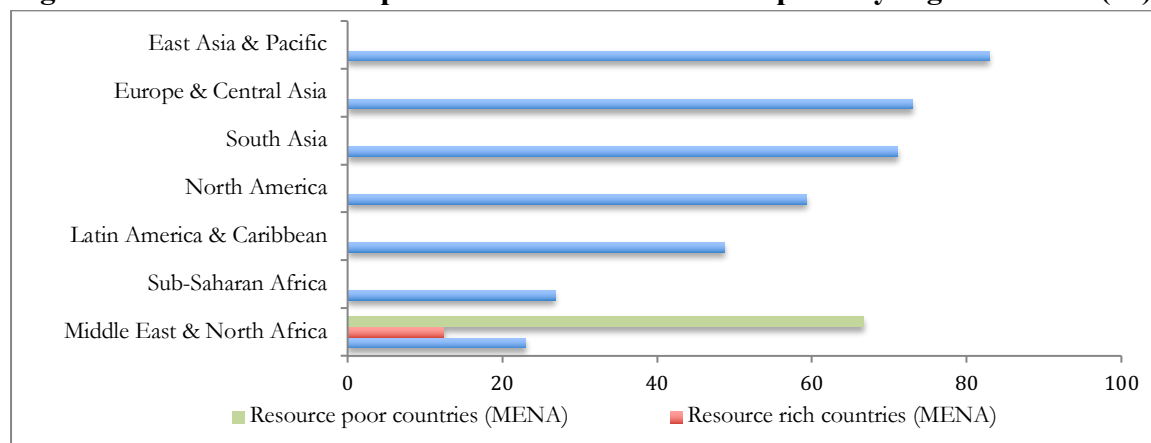
Figure 2: Extractive rents per capita in the MENA region (Average 2010-2017)



Source: Author’s elaboration based on data provided in the World Development Indicators (2019).

The high degrees of export concentration in the MENA region are mirrored by small degrees of industrial development. MENA’s shares of manufactured exports in total merchandise exports are lower than any other region in the world (see figure 3). This can be explained by the fact the regional average is heavily influenced by the extremely low figures displayed by the resource rich MENA countries (around 10.4%, compared to 66,7% for resource poor countries such as Egypt, Morocco, Lebanon, Jordan, Turkey, etc). There is thus a clear contrast between the resource rich and resource poor countries of the MENA region in terms of share of manufacturing in total exports. However, to what extent does it matter? Why should policy makers in the MENA region be concerned regard low export diversification rates? The next section examines the different options for managing resource revenues and their implications for export diversification, before explain why resource rich in the MENA region face a differentiated sense of urgency to diversify their economies.

Figure 3: Manufactured exports in total merchandise exports by region in 2017 (%)²



Source: World Development Indicators.

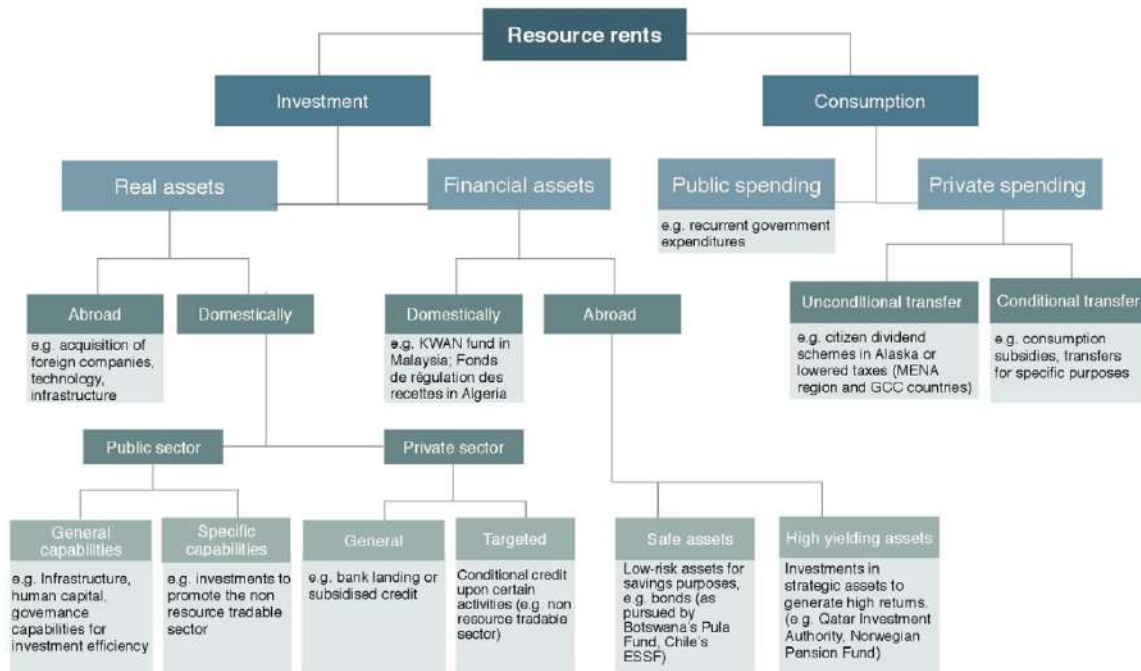
Note: For Qatar, Iraq and Bahrain, the data is for the year 2016 rather than 2017 due to data availability issues.

² This graph includes 2016 figures for Qatar, Iraq and Bahrain due to the lack of data for 2017 for these countries. By omitting these countries, the share of manufactured exports for resource rich MENA countries goes up to 12%, which remains low compared to the rest of the world and resource poor MENA countries.

3. Different options for managing resource revenues and their implications

Those different ways to manage resource revenues have important developmental implications. Chang and Lebdioui (2020) map out several layers of decisions for the government to allocate resource revenues (see figure 4).

Figure 4: The main options for managing resource revenues



Source: Chang and Lebdioui (2020)

Resource revenues represent an opportunity to relax financing and fiscal constraint for economic diversification. Nevertheless, to date, even developing countries with natural resource rents have not had domestic investment rates commensurate with their increase of resources revenues (Collier et al., 2010). Such pattern of under-investment often leads to a stagnation of the domestic economy’s productive structure, which further discourages private investments. However, the public spending of resource revenues for both consumption and investment in real assets has often been criticized due to government failures that can be classified into two broad categories. The first one relates to risks of public investment inefficiency due to *political* factors (elite capture, through corruption, cronyism and political motivations; reduced efforts to collect taxes, which may hinder accountability). The second category relates to risks of public investment inefficiency due to economic factors (lack of government capacity to invest, absorptive capacity and crowding out issues; fiscal instability due to commodity price volatility and Dutch disease) (See Arezki, 2011; Gelb et al., 1988; World Bank, 2013).

As a result, several scholars have emphasized that, in contrast to public expenditure, parking financial assets overseas is not constrained by the absorptive capacity of the economy, which is why financial investments should be prioritized until investments can be used *efficiently* in

the domestic economy (Hentsridge and Roe, 2018; van der Ploeg and Venables, 2018). The more radical conventional policy advice on managing revenues from non-renewable resources, based on the permanent income hypothesis (PIH), is that such revenues should be systematically saved overseas in order to avoid fiscal instability from overspending resource revenues, and that domestic spending of resource revenues on the long run would be financed by the returns on savings and investments overseas (e.g. Davis et al., 2003; Barnett and Ossowski, 2003; Bems and de Carvalho Filho, 2011).³ A study conducted by Truman (2011) has shown that overseas holdings constitute 84% of total investments in a sample of 60 SWFs.⁴

Nevertheless, investing resource revenues in financial assets can lead to very high opportunity costs for capital scarce developing countries that need to diversify their economies. While there is a need to cushion to impact of resource revenue volatility, this should not be at the expense of allowing the domestic economy to benefit from commodity booms (Collier et al. 2010; Chang and Lebdioui, 2020). The conventional PIH advice may be attractive when resource revenues are expected to be exhausted within 10 to 20 years, the PIH but bears very high opportunity costs on the long run, which is why it has been increasingly criticized in recent years (e.g. Araujo et al., 2012; Berg et al. 2012; Collier et al, 2010; International Monetary Fund, 2012; Sachs, 2007; Takizawa et al., 2004; UNCTAD 2006a; van der Ploeg and Venables, 2008, 2011; van der Ploeg, 2010; Venables, 2010).

Other economists have argued that resource revenues should be distributed directly to citizens (e.g. Devarajan, 2019). The direct distribution to citizens through cash transfers, subsidies or tax breaks) would improve accountability (by encouraging citizens to monitor oil income and forcing government to rely on normal taxation for revenues) as well as widen the opportunity for citizens to invest in human capital to complement resource wealth, rather than concentrating access to capital within a small elite (Gelb and Grasmann, 2009; Devarajan, 2019). Devarajan (2019) further justifies the direct distribution to citizens by arguing that the mismanagement of oil revenues relates to the public expenditure on consumption through inefficient subsidies and public-sector wages, over capital. In the most direct cases of redistribution to citizens (excluding indirect transfer through social housing) the government retains neither macroeconomic nor microeconomic control over spending. Few states, such as Alaska, have implemented citizen dividend schemes, but few other developing exporters followed this path. Instead, many oil exporters for instance distribute rents to citizens indirectly through lower taxes and consumption subsidies, in particular fuel subsidies, or mechanisms of social housing distribution (as in Algeria), or even grants to newlyweds (as in several Middle Eastern countries).⁵ Crivelli and Gupta (2014) evidenced a substitution

³ The PIH was developed by Friedman (1957) and describes how agents spread consumption by supposing that consumption is determined not the current income but also by the expected income in the future.

⁴ More recently, several resource-rich developing countries have started to establish SWFs that are mandated to invest domestically (Monk 2013; Gelb, Tordo and Halland, 2014a).

⁵ Gelb and Grasmann (2009) rightly argue that the fiscal costs of holding down domestic prices of petroleum derivatives and natural gas to well-below world market levels can be considerable, and stems from policies that inefficient and difficult to reverse. According to IMF staff estimates, gasoline subsidies in Algeria represented 14 % of GDP in 2015, which is almost as large as the fiscal deficit itself and twice the combined budgets of the health and education ministries (Jewell, 2016). Such subsidies the rich more than the poor, given that the richest

between natural resources and domestic (non-resource) tax revenue, with around 30 cents in non-resource tax revenue being lost with each additional dollar in resource revenue.

Nevertheless, even in the case of direct redistribution to citizens, several issues should be raised. Firstly, there is no guarantee that the choices of individuals will lead to an optimal macroeconomic profile of consumption versus investment rates. As Arezki (2011) best explained, direct redistribution may fuel increased consumption as opposed to investment, because individuals may underinvest the proceeds of resource revenues in, say, education and health, as they may not internalize the social benefits of those investments. In addition, using resource revenues to finance an immediate increase in consumption can be problematic due to the volatility of resource revenue, which imply that the increase in consumption is unsustainable and should be reversed as soon as possible before it becomes entrenched into habits, especially since volatility in consumption is challenging to deal with (Collier et al, 2010). Cutting back on consumption is indeed politically undesirable, as individuals get used to higher consumptions patterns, which makes it more challenging to cut back spending (ibid.).

Secondly, redistribution to private citizens may also not lead to an optimal macroeconomic effect of investment. Dividing resource revenues through citizens would lead to investments that are too small in scale to have transformative effects at the macroeconomic level, and consequently would not contribute to export diversification. The process of diversification with the emergence of new industries involves a process of learning by doing, R&D, and risk that private individuals may not be able to afford alone with sole dividends from resource revenues (Lebdoui, 2019b).

A third issue has to do with the intergenerational distribution of the benefits, especially if the generation of private individuals that benefit from a resource boom use their dividends to boost consumption instead of investing. Such spending behavior would benefit current generation at the expense of future generations. In contrast, domestic investments can put consumption paths on a gradual increase and that benefit all generations. Indeed, non-neoclassical approaches (such as the Hartwick rule and the Feldman-Mahalonobis model) shed light on the trade-off between immediate and future consumption, and suggest that revenues generated by exhaustible resources should reinvested into the production of capital goods in order to reach a high standard in consumption but also to accumulate productive capabilities (that are capable of generating income after natural resources are depleted). Hartwick (1978) argued that an optimal constant level of consumption can be sustained if the value of (net) investment equals the value of rents from extracted resources at each point in time. According to the World Bank (2011b), few resource-rich countries (such as Malaysia) have followed the Hartwick Rule over the last 35 years, because resource rents tend to be used to finance consumption rather than investment.

A fourth counterargument is that taxation has positive outcomes on state accountability and should not be eliminated. While Collier et al. (2010) noted that an advantage of redistribution

20% consume six times as much fuel as the poorest 20 % (ibid.)

to citizens is that, in countries with bad governance, it is important to get funds out of the reach of government as rapidly as possible, it is worth noting that the lack of taxation is likely to erode the basis of the social contract between people and the state.⁶ Indeed, a negative system of taxation will likely preempt greater societal demands for accountability and scrutiny over government spending, further allowing for bad governance (Cammett et. al, 2015; Eubank, 2012; Moore and Rakner, 2002).

The public investment of resource revenues should therefore not be dismissed so quickly. The diversification of a country's productive structure is the most sustainable way to reduce a country's vulnerability to commodity prices fluctuations (and thus the best way to achieve macroeconomic stability) (Chang and Lebdioui, 2020; Di John, 2009).⁷ Although financial investments can help achieving fiscal stabilization purposes, they are unlikely to enhance the productive capabilities of the national economy, especially if they are not linked towards the acquisition of strategic assets that are related to domestic capabilities (Chang, 2007). An increasing number of studies also support the argument that domestic investment of resource revenues holds the potential to promote economic growth and diversification (Berg et al. 2012; Chang and Lebdioui, 2020; Cherif and Hasanov, 2014; Collier et al. 2009; Gelb and Grassman, 2009; Isaksson, 2009; van der Ploeg and Venables 2010).

4. Resource revenue management in the MENA region: Consumption and financialisation at the expense of structural transformation

4.1 Resource revenue management in MENA countries in the last commodity boom (2000-2014)

Generally speaking, across the board, resource-rich MENA countries have tended to spend their resource revenues generated by the last commodity boom by fueling domestic consumption, both at the public sector and private level, rather than for investment to increase the productivity of non-resource tradable sectors. Collier et al. (2010) find that in countries such as Saudi Arabia, Algeria, Libya, the rise in hydrocarbon revenues did not translate into an increase in the share of domestic investments. Instead, hydrocarbon revenues in the GCC have been used to support citizens "from cradle to grave", by providing including free education and healthcare, highly subsidized utility prices, low taxes as well as employment in the public sector for nationals (Malik and Nagesh, 2019).⁸ In fact, resource rich countries of MENA tend to have larger energy subsidies (Fattouh and El Katiri, 2013) as well as military spending (Ali and Abdellatif, 2013) than the rest of the world.⁹ While energy subsidies that keep domestic energy prices below market prices serve as a strategic tool to promote industrialization and increase the income of citizens, Fattouh and El Katiri (2013) argued that they do so in a costly and highly inefficient way in the Middle East and North Africa.

⁶ Collier et al (2010) also point out that this argument is of doubtful relevance because the countries with the worst governance are unlikely to implement such a scheme.

⁷ This is well reflected by the Malaysian experience. For instance, Malaysia's public investments led to a large short-term fiscal deficit but had long-run transformative effects on the domestic economy (Di John, 2009).

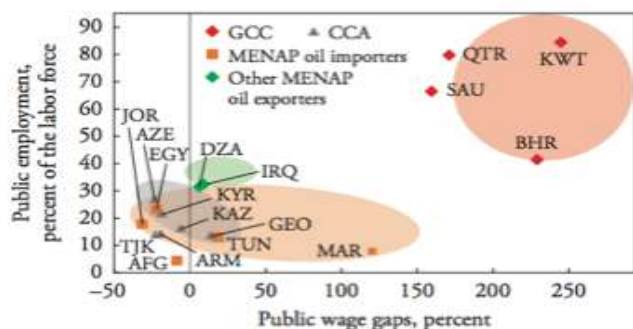
⁸ However, it is worth noting that this support varies across the region and has undergone changes as oil prices fall and domestic populations increase (Malik and Nagesh, 2019).

⁹ Ali and Abdellatif (2013) found that an increase in natural resource revenues lead to increases in military spending in the Middle East and North Africa (MENA) countries from 1987 to 2012.

Shehabi (2019:7) described such practices as the essence of being a rentier state: “the redistribution takes place very unequally, but almost all earners directly or indirectly benefit from it and do not contribute to government revenue”.

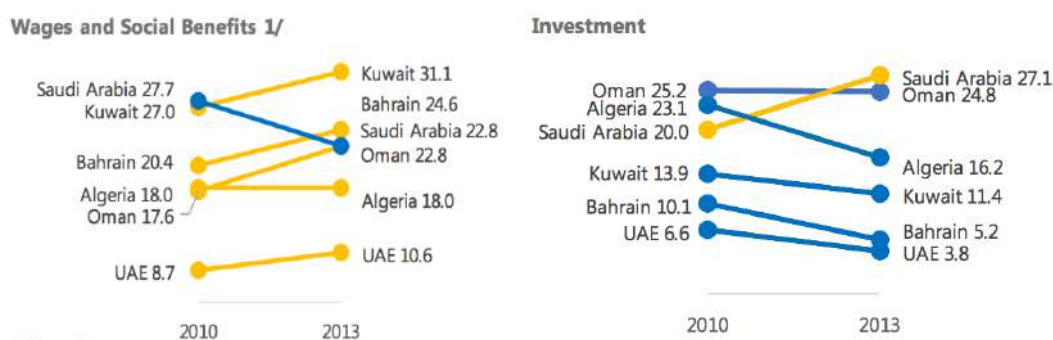
Redistribution of resource rents has also taken place through an expansion of public sector employment for nationals. In the GCC countries and Algeria, the real wage bill growth rose from an annual average of 2% during 1992–2000, to 8% during 2001–07, and further increased to 10% during 2008–16, despite the global financial crisis and a prolonged decline in oil prices (Tamirisa and Duenwald, 2018). GCC labour markets have been deeply distorted by expansive government employment, which accounts for about 70% all jobs held by GCC citizens (Hertog, 2014). This approach to redistributing resource wealth can reflect the notion of patronage, whereby the patron holds public office and distributes state resources on a nonmeritocratic basis for political gain (Mainwaring, 1999; Stokes, 2011).

Figure 5: Public wages and employment in MENA and Central Asia, 2005-16



Source: Tamirisa and Duenwald (2018)

Figure 6: Spending patterns in Arab Oil Exporters, (% of non-oil GDP)



Source: IMF 2016

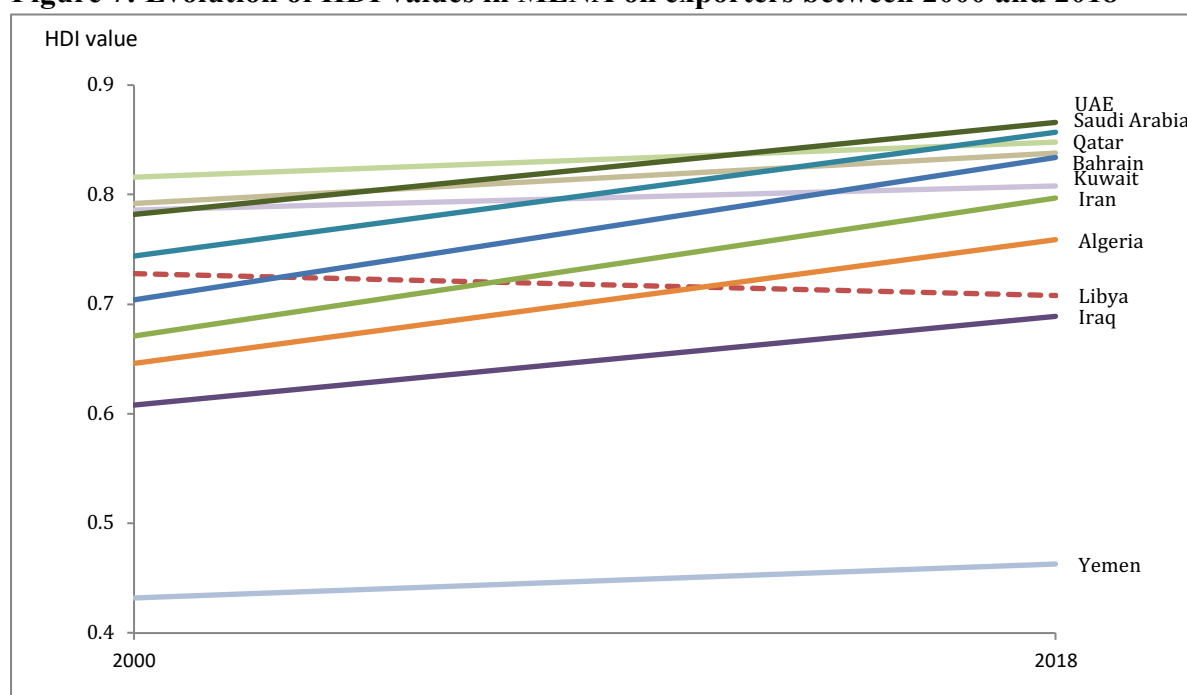
Another key feature of the resource revenue management in the highly resource-rich per capita countries of the MENA region has been the high levels of accumulation of financial assets overseas. The UAE, Kuwait, Saudi Arabia and Qatar in particular have accumulated very large assets overseas, notably through their SWFs. It has been argued that such

concentration of investment in overseas assets has constrained the ability of GCC governments to reduce overdependence on hydrocarbons revenues (Shehabi, 2019).¹⁰

4.2 Developmental outcomes

It is undeniable that resource revenue investments in the MENA region have led to socio-economic improvements. With the notable exception of Libya and Yemen (that have recently undergone conflicts), the HDI value has increased for all the other resource-rich countries in the region since 2000 (figure 7). In addition, as a result of resource revenue investments over the past two decades, Cherif and Hasanov (2019) note considerable improvements in the position of several MENA countries in indices of business climate, quality of infrastructure, and quality of bureaucracy. Hertog (2020) also highlights that GCC countries rank higher in terms of bureaucracy efficiency, infrastructure quality and public goods provisions than most other hydrocarbons producers outside of the OECD. Nevertheless, as noted in both papers, such improvements in the business climate has not sufficed to promote economic diversification. Cherif and Hasanov (2016) further show that to develop the tradable sector, countries do not need institutions and business indicators at the level of advanced countries. For instance, Malaysia’s bureaucratic quality index (from the International Country Risk Guide) did not change much in the 1980s-1990s as it was developing its more sophisticated tradable sector, and this indicator was similar to that of Saudi Arabia (ibid.).

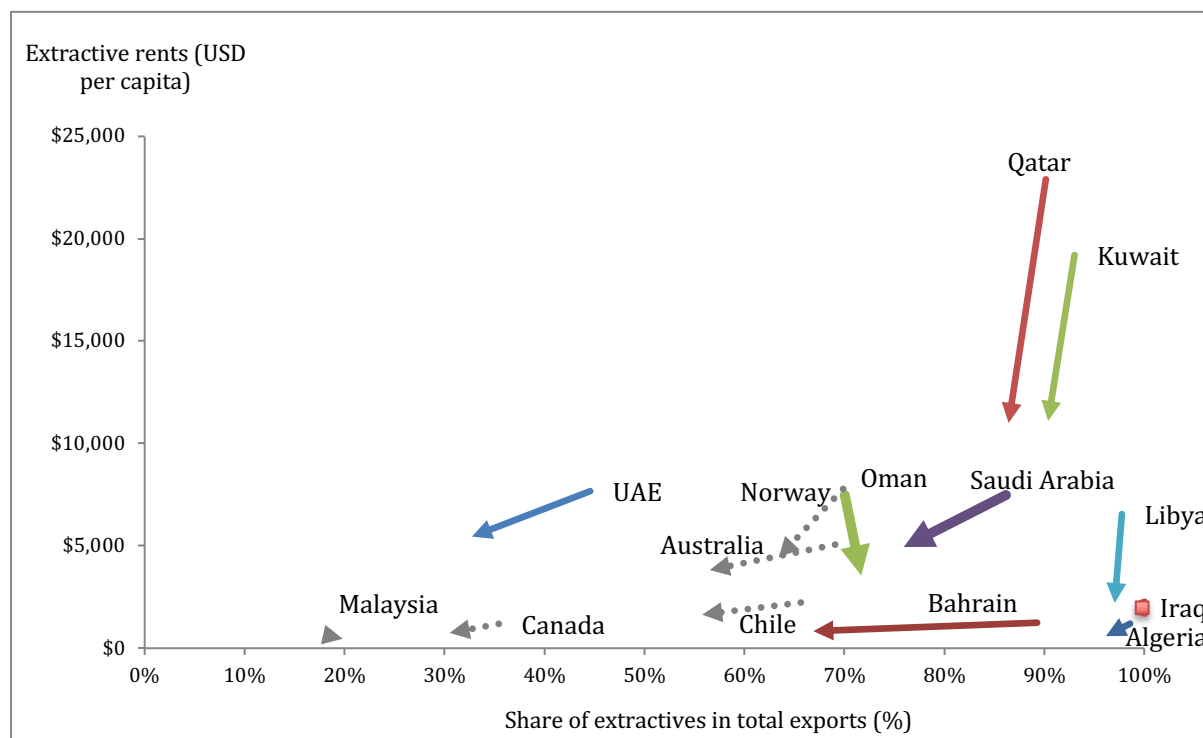
Figure 7: Evolution of HDI values in MENA oil exporters between 2000 and 2018



Source: Author’s elaboration based on data provided by UNDP (2020)

¹⁰ Kuwait has two SWFs managed by the Kuwait Investment Authority (KIA), which aims to ensure macro-stabilization and fiscal rebalancing. Such investments in the KIA are deliberate policy choices to offer a diversified alternative revenue source to sectoral diversification in the economy (Shehabi, 2019).

Figure 8: Mapping out the movements in terms of extractive dependence between 2000 and 2017



Source: Author's elaboration based on data provided by the WDI and UN Comtrade.

As shown in figure 8, Bahrain and UAE are the best performers in terms of diversification over the past decade, while Algeria, Iraq, Libya and Saudi Arabia remain in particularly vulnerable positions. They are not diversifying fast enough. Similarly, very resource rich countries per capita (Qatar, Kuwait) are also rapidly heading in the red zone (ultra resource dependence with only 'medium' resource revenues per capita) – soon joining Algeria, Iraq and Libya - due to a disproportionate loss of resource revenues relatively to their diversification rate.

In light of the discussion in section 3, rather than changes in the business environment, it appears that the poor diversification outcomes of the MENA region can be explained by the non-developmental use of resource revenues, which has been used to fuel current consumption at the expense of productivity-enhancing capabilities in tradable sectors. In particular, the generous state employment and relatively high wages have created fairly high costs for local producers, which do not reflect the efficiency of production have hindered competitiveness of the non-oil tradable sector (Hertog, 2020). Resource-rich MENA countries generally find themselves caught between low-wage manufacturers and high-wage innovators, because their wage rates are too high to compete with firms in countries with cheaper labour, but the level of their technological capability is too low to enable them to compete with advanced economies. Economic diversification towards labour-intensive, low value-added sectors is therefore not suitable to the context of most MENA oil exporters. Instead, the promotion of higher value-added activities in non-oil tradable sectors remains the

most promising avenue towards diversification, which is why industrial policy tools and a strategic reinvestment of resource revenues is needed more than ever for the oil-dependent economies of the MENA region. Indeed, as elaborated by Lebdioui et al. (2020), industrial policy measures that enable the accumulation of productive and innovative capabilities are critical for countries seeking to achieve but also *sustain* a high-income status.

4.3 Different shades of resource wealth and their implications for resource rent management strategies.

An important question remains: Why shouldn't resource-rich countries of the MENA regions simply follow the often-praised example of Norway who has successfully invested its revenues in financial assets overseas? Would this strategy suffice to smoothening growth and consumption? Why is it achievable in some resource rich countries in the region but not others?

The argument provided in Lebdioui (2019a) revolves around the degree of per capita resource wealth: while very resource rich per capita countries (defined as the 10th decile in terms of extractives rents per capita, or countries with extractive rents that are superior to USD3000 per capita – henceforth VRR) seem to be able to develop despite natural resource dependence, there seems to be a strong correlation between economic growth and export diversification for medium resource rich per capita countries (which rank in the 8th and 9th deciles in terms of extractives rents per capita – henceforth MRR). This hypothesis implies that VRR countries (which includes Norway) can more easily sustain growth without necessarily undergoing a transformation of their economy while export diversification is a key factor of economic development for MRR countries, which should consequently follow a pattern of resource rents management that focuses more on domestic investment for diversification than VRR countries. This theory has been confirmed with statistical evidence showing the heterogeneous effect of export diversification on growth rates and employment rates according to their level of resource rents per capita in times of low commodity prices (see Lebdioui 2019a).

This phenomena also holds for the MENA region in isolation. Table 1 shows that eventhough the average diversification rate has been similar for VRR and MRR countries in the 1990-2010 period, there are considerable divergences in terms of unemployment and growth rates. Despite being commodity dependent, VRR countries (Qatar, Kuwait, UAE, Oman and Saudi Arabia) have retained low unemployment rates (3.27% on average) and relatively high growth rates (5.5% on average). Meanwhile, the average unemployment rates for MRR countries (Algeria, Iran, Iraq, Libya, Yemen) has reached 13%, while average GDP growth has remained below 3%.

Figures 9 further explores the correlation between GDP growth and export diversification in MENA countries between 1990 and 2000 (a period of low commodity prices). It reveals that while export diversification and growth does not appear to be correlated for VRR countries (all VRR countries achieved growth rates above 2% regardless of their diversification rate),

there is a clearly negative correlation between export diversification and growth in MRR countries.

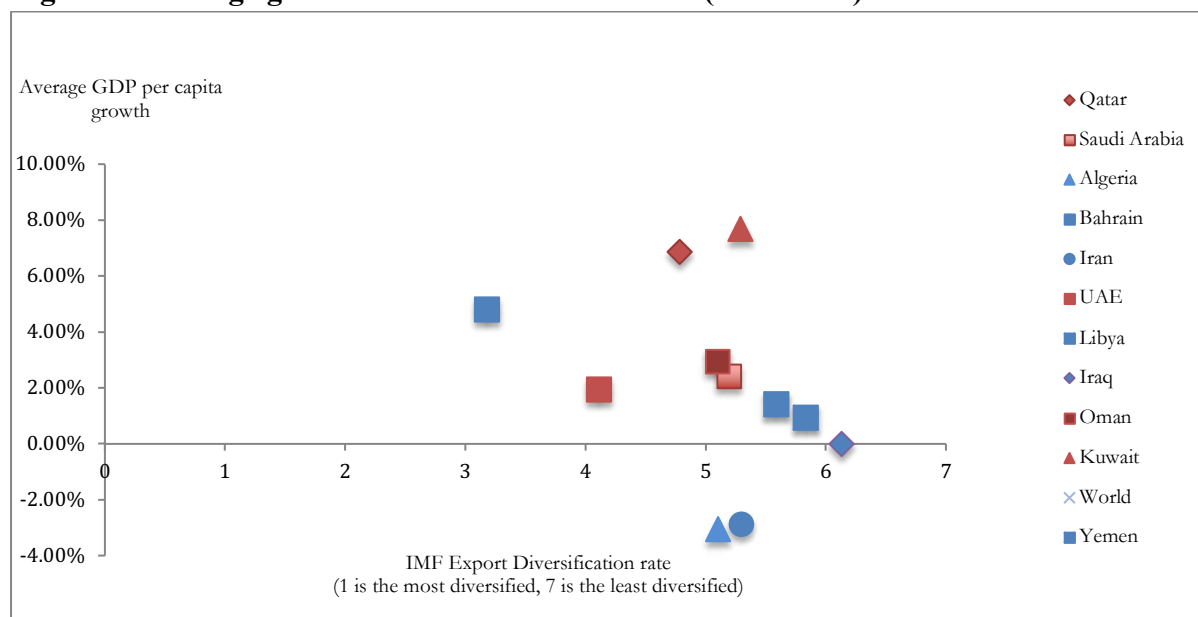
Figure 10 examines the correlation between export diversification and unemployment in MENA countries. While VRR countries display low unemployment rates regardless of their diversification rates, low unemployment appear to be correlated with higher diversification rates in MRR countries.

Table 1: Selected Statistics for the MENA region, average for the 1990-2010 period

Country	Classification	Resource rents per capita (USD)	IMF export diversification rate (1 is the most diversified)	Unemployment rate	GDP per capita growth
Qatar	VRR	11146.4	4.8	2.7%	7.87%
Kuwait	VRR	10029.7	5.3	1.2%	7.67%
UAE	VRR	6227.3	4.1	2.6%	1.26%
Saudi Arabia	VRR	3956.6	5.2	5.5%	5.04%
Oman	VRR	3531.3	5.1	4.1%	5.63%
Average			4.9	3.27%	5.49%
Libya	MRR	2909.8	5.8	19.5%	3.15%
Iraq	MRR	1221.2	6.1	8.9%	-4.05%
Bahrain	MRR	708.4	3.2	1.3%	4.54%
Iran	MRR	638.8	5.3	11.3%	5.54%
Algeria	MRR	411.5	5.1	22.5%	3.16%
Yemen	MRR	178.8	5.6	12.5%	5.27%
Average			5.2	12.7%	2.94%
<i>World</i>		<i>125.1</i>		<i>5.9%</i>	<i>4.09%</i>
Egypt.	RP	112.3	2.8	9.7%	6.41%
Tunisia	RP	104.9	3.1	15.0%	5.23%
Sudan	RP	78.9	4.7	13.4%	5.79%
Morocco	RP	21.8	3.1	14.0%	4.38%
Jordan	RP	19.1	2.6	15.0%	5.90%
Turkey	RP	10.2	2.0	8.7%	6.93%
Lebanon	RP	0.0	2.3	8.3%	11.25%
Average			2.9	12.0%	6.56%

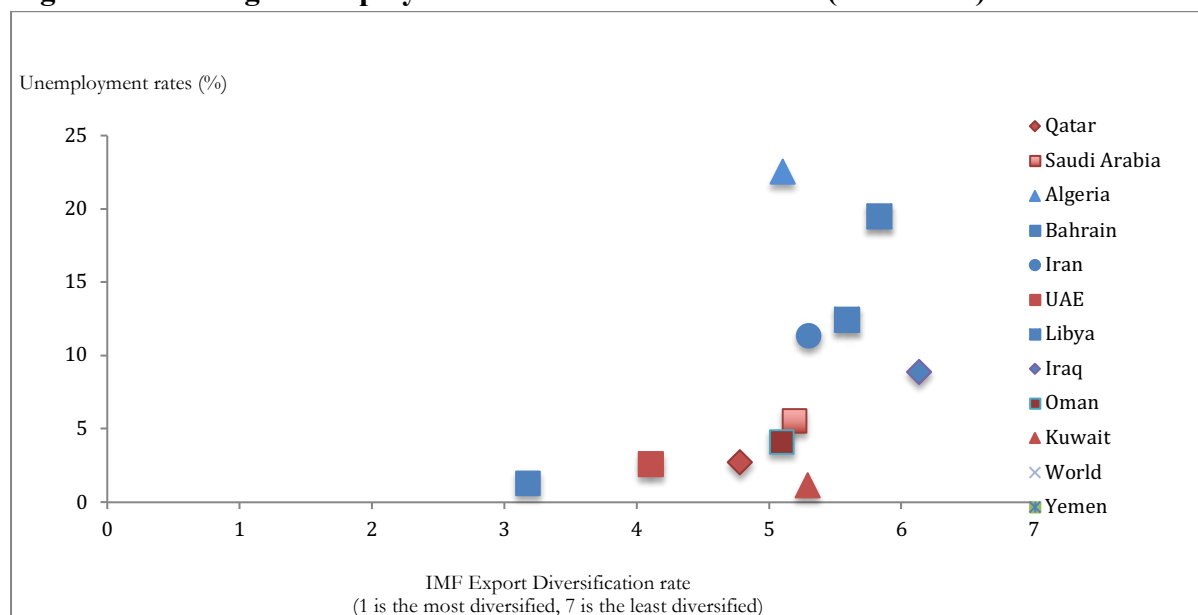
Source: WDI (2019) and IMF (2018)

Figure 9: Average growth and Diversification rate (1990-2000)



Source: Author’s elaboration based on data provided in WDI (2019) and IMF (2018) ¹¹

Figure 10: Average unemployment and Diversification rate (1990-2010)



Source: Author’s elaboration based on data provided in WDI (2019) and IMF (2018)

These results are explained by the fact that the degree of resource wealth per capita influences both political factors (such as pressure for rents distribution, consent and governance) and economic factors (such as employment generation in the context of the low labour intensity of extractive industries).¹²

¹¹ VRR countries are represented with red dots while MRR countries are represented with blue dots.

¹² The political implications of the variations in per capita wealth in the MENA region was notably examined in Cammett et al. (2015), which found that countries displaying very high oil abundance per capita tend to have higher political governance records than those with medium resource rich per capita countries. They explain this divergence in terms of the sets of incentives facing rulers in high and low population oil-rich countries and the

Indeed, one of the main political economy differences between VRR and MRR countries concerns the compromise between social redistribution and long-term growth. Unsurprisingly, higher levels of resource rents per capita provide the state with enough financial resources for a broad social redistribution among citizens (notably through increasing public sector employment) without compromising or cutting back the investments needed to promote economic growth. In contrast, in resource rich countries with a lower per capita resource wealth, there is a clear threat of economic stagnation caused by excessively redistributive policies, as well as a threat of economic disparity amongst the population if growth is encouraged at the expense of social spending. Hertog (2020) also highlights some of the differences between oil exporters of the MENA region based on their population size. He notes that leapfrogging towards advanced kinds of production has been possible in the UAE but is unlikely to be replicable for GCC countries with larger national populations.

The issue of employment creation is of central importance in explaining the differences in the political economy of resource rent management in VRR and MRR countries. VRR countries can afford to either transfer rents to their populations without a great need to generate employment (through the private sector in particular), or can afford to rely on the public sector to generate excess employment. For instance, the Saudi labour market has been characterized by a dependence on the public sector where average wages for Saudi nationals is far larger than in private employment in other sectors (McKinsey, 2016). MRR countries usually cannot afford similar strategies and are more likely to require an economic diversification in order to generate employment, especially given the low labour intensity of extractive activities. This influence of per capita resource wealth in determining the ability of the public sector to absorb large segments of the local labour force is well reflected in figure 5, which shows that the share of public employment is above 65% for VRR countries such as Saudi Arabia, Qatar and Kuwait, but remains below 45% for MRR countries such as Algeria and Iraq and Bahrain.

Those dynamics of rents distribution and employment generation have obvious economic implications.¹³ It can be argued that VRR countries face less pressure than MRR countries to industrialize through labour-intensive manufacturing activities, and instead are more likely to

ways in which resources shape or consolidate political settlements. They further explain that regimes featuring high oil earnings per capita (such as the Gulf states) tend to prefer relying more on the distribution of rents to buy consent and social peace in order to secure their power and prevent greater societal demands for accountability, which is less risky than repression.¹² Meanwhile, MRR countries face a more challenging situation because even though they have large resource endowments, resource rents may not suffice to buy their populations' support. Cammett et al (2015) argue that such resource rich countries tend to employ more repression. This logic relates to what North et al. (2009) call a "limited order arrangement": when resources are plentiful, ruling coalitions can afford to be broader and thus more stable. In contrast, when resources are more constrained, ruling coalitions tend to be narrower because it is fiscally impossible to buy the consent of a large portion of the population. Resource rich countries with large populations consequently tend to display a selective allocation of rents and thus of economic opportunities, less developed private sectors and big coercive apparatuses repression, which is why they are thought to suffer from the resource curse (Cammett et al., 2015).

¹³ Economic diversification contributes to expand job opportunities for the segments of labour force that are not employed in extractive sectors and consequently may also bears societal effects in terms of inequality. Statistical analyses could not be conducted in the context of the MENA region because of the lack of data available.

invest in financial assets and services. This argument is reflected by the fact that the highest per capita oil income countries feature very low shares of manufacturing exports, and echoes the finding in Sachs and Warner (1995:19) that “for the most highly resource endowed economies [...] the natural resource base is so vast that there is no strong pressure to develop an extensive industrial sector”.¹⁴

As a result, borrowing Gelb’s words, “although there is evidence that diversifying economies can expect to do better over the long run, the urgency of the issue will vary across countries” (2010:19). By explaining that resource abundance per capita is an additional factor that influences the suitability of diversification strategies pursued by resource-rich countries, this paper shows that MENA economies face a differentiated sense of urgency and risk-taking for structural transformation at the expense of financial diversification. In addition, the UAE, Kuwait, and Qatar have accumulated sufficiently large sovereign funds that they generate revenues large enough that might substitute for hydrocarbon rents if and when the latter drop (Luciani, 2019). However, such circumstances are “particular” and cannot be replicated by most other countries. MRR countries such as Algeria, Iran and Iraq can reap more benefits from diversifying their productive structures as swiftly as possible. Such differences influence the opportunity costs associated with investments of resource revenues in financial assets.

A central issue for policy-makers in medium resource rich countries of the MENA region is therefore dealing with high social expectations in a context where excessive social redistribution is likely to lead to economic collapse. Governments MRR countries thus need to manage resource rents more efficiently than in VRR countries. Over the past five decades, there have been several attempts to stimulate economic diversification in such countries, particularly in Algeria and Iran, where leaders attempted to construct developmental states before their ambitious development plans failed (Cammett et al. 2015). Nevertheless, industrial policy measures have been either poorly designed or discontinued as a result of political discontinuity. In addition, across both categories of countries, the political pressure to provide more state employment remains strong, and policy-makers with a short time horizon have little incentive to implement reforms that are likely to be unpopular in the short-term. Political pressure to maintain social welfare and consumption explains why little reforms have been implemented to channel resource revenues towards non-oil tradable sectors in the past 20 years in countries such as Algeria.

Even though Hertog (2020) remains sceptical regarding the usefulness or replicability of the Malaysia case for the resource-dependent countries of the MENA region, it can be argued that the Malaysia case offers interesting (and heterodox) lessons on the political economy of export diversification. Despite facing social stability threats and initially attempting a populist

¹⁴ This includes countries like Qatar, Norway, Kuwait, the UAE and Australia, which are usually considered high-income economies. However, it can be argued that the economies of Qatar, Kuwait and UAE are not necessarily advanced because they have lower levels of industrial and agricultural development than other high-income countries (Khan, 2007).

redistribution toward less privileged groups, Malaysia shows that “even mineral rich countries with a history of instability and fractious politics can experience windows of opportunity for good management that leads towards diversification” (Gelb, 2010:18). Interestingly, in Malaysia, a MRR country where successful diversification has taken place since the 1970s, diversification policy did not take place in a vacuum but was anchored in a long-term vision (guided by meticulous five year plans – there are now 11 of them). Even though the focus of government plans has evolved over time, it can be argued that economic policy continuity has been facilitated by a political system grounded on coalition-building and “consociationalism” (at least up until the general elections that took place in May 2018).

It should also be stressed that the findings of this paper do not imply that VRR countries do not need to diversify their export baskets. Cherif and Hasanov (2019) show that even VRR countries such as Kuwait and Saudi Arabia have lost their relative income ranking over time, suggesting that they might fall back into middle income status in the future. Malik and Nagesh (2019) also argue that while high foreign exchange reserves in GCC countries also provide an additional source of government revenue that can be used during times of lower oil prices, this does not mean that these economies should not look to diversify.

Another key consideration comes from the context of energy transition and expected reduced demand for oil, which increase the need for diversification in all petroleum-dependent countries. As highlighted in Fattouh and Sen (2019:25): “If the transition in Arab countries does not go smoothly and they fail in their diversification efforts, this could result in lower investment in the oil sector, output disruptions, and more volatile oil prices. Also, in the absence of diversification, oil exporters will continue to push for higher oil prices. These have the effect of speeding up the global energy transition”. Petroleum exporters should consequently aim to diversify their economies in anticipation of the reduced demands for fossil fuels, regardless of their resource abundance per capita and levels of accumulation of foreign reserves and financial assets overseas

5. Policy implications: Towards a different model of resource revenues management

In light of the analysis in the previous sections of this paper, it becomes clear that resource rich countries (both VRR and MRR) of the MENA region have particularly failed to utilize their resource revenues as a tool for export diversification. In Chang and Lebdioui (2020), we offer a resource revenue management model that is more suited to achieve such diversification objectives. Such approach is geared towards using resource revenues to overcome domestic structural constraints (such as low technological sophistication, limited areas of comparative advantage, low absorptive capacity) as well as mitigating economic risks associated with resource revenues (such as public investment inefficiency, absorptive capacity constraints, and Dutch disease, which are often credited as the primary reason for the lack of diversification in the MENA region (Shehabi, 2019).

This approach is dynamic across time because it emphasizes the gradual shift between short-term fiscal stabilization and long-term progressive accumulation of productive capabilities in

tradable sectors. This approach is also dynamic across institutional conditions because it takes into account the state policy actions to improve the institutional capacity to invest over time. Indeed, this approach acknowledges the endogenous relationship between state capacity and growth by taking into account how certain patterns of resource revenue investment can contribute to building state capacity over time.

The main features of this approach are:

- (i) *Gradual scaling up domestic investments in real assets.*
- (ii) *Allowing for learning-by-doing in the build up of institutional capacity to invest efficiently.*
- (iii) *Expanding absorptive capacity by focusing on tradable sectors.*
- (iv) *Targetting specific industrial capabilities in order to reduce commodity dependence and macroeconomic instability on the long run.*

5.1 A gradual scaling up of domestic investments in real assets

Public investment efficiency has been identified as a key issue preventing economic upgrading in developing countries (see Pritchett, 2000). As a result, Collier et al. (2010) and Collier and Laroche (2015) argue that countries should invest in their capacity to invest *before* domestically investing their resource revenues to ensure that public investment leads to high returns in terms of growth. Such arguments (often used against domestic resource revenue spending) rely on the assumption that it takes a long time for countries to develop good institutions and absorptive capacity (building up government administrative capacity, addressing bottlenecks in the economy, investment in education and skills), which means that public investment is likely to be inefficient in the meanwhile and cause economic distortions. However, one element of great importance that might be shadowed in such approach is the presence of opportunities for learning by doing.

In contrast to the two approaches explained above, Gelb and Grasmann (2009) argue that the allocation for domestic investments, rather being fixed at a certain portfolio share, should be determined on the basis of competition by being weighted against the potential returns on overseas investments. Hence, when domestic returns are low, investment would be channeled abroad. This would safeguard the efficiency and high returns of investments, while investment with a ‘developmental’ purpose can still be benchmarked against the financial return on foreign assets.

Departing from existing suggestions, Chang and Lebdioui (2020) suggest a policy alternative consisting in the gradual scale up in the domestic allocation of investments from resource revenues. This can allow for investment efficiency to improve through learning-by-doing as well as progressively expand the absorptive capacity of the national economy. Indeed, it can be argued that public investment efficiency involves some degree of learning by doing in developing the technical expertise and institutions required for project appraisal, implementation, monitoring and evaluation, and so on. By capping the allowance for

domestic spending in the first few years of a commodity boom, potentially wasted revenues or the “damage” cause by inefficient investment is restrained. Indeed, scaling up public investment too much and too fast could subject the economy to more instability, lower investment efficiency, and higher depreciation rates, without the guarantee that such strategy would outperform a more conservative scaling-up path (Berg et al., 2012; Gelb and Grasmann, 2009). In contrast, gradually localizing the investments of resource revenues considers the diminishing marginal utility of public spending and the issue of absorptive capacity. The progressive increase in the allocation of investment domestically can also allow for the domestic economy to gradually adjust its supply side capabilities in order to absorb larger volumes of capital, thereby reducing risks of crowding out, both in terms of capital and skilled labour.

This gradual approach also reduces the cost of misjudging the duration of a commodity boom. Indeed, policy-makers have also often misjudged the nature of the boom, which can lead to high costs and inefficiency (Gelb and Grasmann, 2009). Policy makers may overspend revenues in the first years of what is perceived as a long commodity boom, but such commodity boom may turn out to be short. By gradually investing resource revenues domestically, policy makers avoid overspending in the case of a short boom but also ensure that investment have also accrued domestically in the case of a long boom. This approach consequently enables to safeguard short-term macroeconomic stability in the context of oil price volatility.¹⁵ The trade-off between financial investments and real investments is thus dynamic overtime and the policy priority should shift from fiscal stabilization towards capital accumulation in productive sectors to stimulate diversification on the long run. Given that it is difficult to estimate the duration of commodity booms, the option of gradually allocating more resources to domestic investments reduces the risks of overspending resource revenues accumulated in a short commodity boom but would not delaying the reconfiguration of the domestic economy.

5.2 Emphasis on specific capabilities needed for targeting tradable sectors

Although increased government spending can generate demand pressures on non-traded goods, leading to a real appreciation and a decline in traded-good production (van Wijnbergen, 1984), efficient public investment can also raise productivity in non-resource tradable sectors, counteracting Dutch disease symptoms (Berg et al., 2010; Cherif and Hasanov, 2012, 2014). Over time, resource revenues can be used to relax capital and technological constraints, especially in non- resource sectors, to promote the diversification of productive structures. By studying of the optimal consumption, saving and investment

¹⁵ Gelb and Grasmann (2009) have attempted to identify the size of fund that might be required not to fully smooth domestic spending, but to maximize a benefit function in which there are diminishing returns to spending. They find that, in the case of the short boom (which usually last less than five years), the optimum is to spend 20% of incremental oil revenues during the boom years and save the remaining 80%. For the long boom, it is optimal to spend 80% of incremental oil revenues and save the remaining 20% (ibid.), because over-saving resource revenues in low risk financial assets overseas bears a high opportunity cost in the long run. As a result, the savings rate should gradually decrease to around 20% over time, as the commodity boom prolongs, making way for other types of investments.

policies of oil exporters, Cherif and Hasanov (2012) concluded that the tradable sector plays a paramount role in investment-saving dynamics and that developing countries may need to pursue a purpose-specific set of policies to develop tradable sophisticated sectors rather than rely solely on providing an “enabling environment” in which a sophisticated export sector would spontaneously emerge by itself. Export diversification would contribute to long-term macro economic stability, even more so than the prescribed short-term fiscal stabilization through the saving of resource revenues overseas. This argument is in line with the idea that macroeconomic policies are not enough to solve macroeconomic problems.

A sole focus on the ‘capacity to absorb investment’ offers no guarantees that the economy will be able to diversify and productively "develop" rather than merely "grow" while remaining resource-dependent. Indeed, relying on already existing market structures and simply enhancing private sector activities might be unlikely to lead to diversification.

5.3 Reducing the risks of political capture through evaluation, monitoring, and strong investment benchmarks

It is evident that the sole adoption of resource revenue management strategies or the creation of resource funds alone do not suffice to sustain good macroeconomic management, since funds can be subverted and captured when the institutional environment is weak (Davis, et al., 2003; Gelb and Grasmann, 2009). A government’s ability to spend revenues and allocate resources effectively is affected not only by the level of institutional development prior to extractives production, but also by political factors that come into play once (1) public expectations of a new flow of extractives revenue are raised and (2) a state–business elite has developed on the basis of rent capture (Lahn and Stevens, 2018). In that context, attention needs to be given to the accountability mechanisms and benchmarks that can help ensure that resource revenues are managed productively. While the political risks associated with public resource revenue investment are extremely important and sometimes cannot be eliminated, it should be stressed that they are not unavoidable and that several institutional measures exist to mitigate them and ensure the integrity of investment decisions (see Gelb et al., 2014a; Gelb et al., 2014b). Excellent examples of institutional measures to reduce the risks of elite capture are provided in Collier et al. (2010) and Gelb et al (2014a, 2014b). Here, I will briefly discuss the relevance of some of these institutional measures at the nation-level and firm-level (corporate governance) in the context of the MENA region.

At the state level, evaluation and monitoring mechanisms are important to avoid white elephant projects. As put forward by Collier et al. (2010), avoiding elite capture requires both honesty and efficiency, which can be enforced in multiple ways, either *ex ante* (about how decisions get authorized) or *ex post* (evaluation). In addition, monitoring and evaluation mechanisms can derive from top-down authority, bottom-up pressure from citizens and their representatives, civil society groups, as well as norms internalized by the public sector workforce (*ibid.*). Efficient evaluation and monitoring also require transparent reporting. SWFs permitted or mandated to invest domestically should thus issue publicly available reports covering their activities, assets, and returns, as well as allow to be audited both

internally and externally (Gelb et al, 2014a). While all funds embody “vertical accountability” (reporting to the government), some also mandate “horizontal accountability” to a wider audience, by making information on balances, earnings, deposits and withdrawals publicly available or by sharing decision-making power among a range of interest groups independent of the government (Gelb and Grasmann (2009). In Norway, although the fund is administered by the Central Bank, decisions on transfers must be approved by parliament. In contrast, in Algeria, the lack of horizontal transparency enabled the depletion, within two years, of the *Fond de Regulations des Recettes*, which accumulated USD 32,5 billion, to finance the government budget (Le Matin d’Algerie, 2017). Increased transparency reduces the risks of elite capture, increase accountability and may be implemented by government who may be concerned that they will be followed by governments that are prepared to loot accumulated funds (Collier et al., 2010). The Extractive Industries Transparency Initiative (EITI) is an example of global standard for the good governance of oil, gas and mineral resources. The EITI Standard requires information along the extractive industry value chain. However, while 52 countries have signed and implemented the EITI standard, only one country in the MENA region (Iraq) has implemented this standard to date. Much more efforts are thus needed in the MENA region in order to improve transparent reporting of investment decisions.

Corporate governance mechanisms are also required for the efficient management of resource revenues. Corporate governance is the system of rules and practices by which a firm is managed. It involves balancing the interests of a company's stakeholders, management, government and the community (Shailer, 2004). There is a large body of knowledge on corporate governance but in the context of this research, the independence of the board from political interference is particularly relevant. To improve the efficient management of resource revenues, several scholars have emphasized the separation of the state (as well as national development banks and SOEs) from resource revenue management (e.g. Gelb et al, 2014b). On the one hand, while government officials often serve as board members for state-owned entities, combining ownership and supervisory roles presents conflicts of interest that could undermine the integrity investments and lead to political capture (ibid.). Nominations committees as well as board members should comprise individuals that meet specific skills and experience requirements and that are deemed to be objective, which can contribute to ensure a politically independent selection process, although perfect independence can hardly be achieved when the owner is the state (ibid.). For instance, civil society representatives sit on the Petroleum Oversight Committee in Sao Tome, while spending decisions in Kazakhstan and Azerbaijan are essentially those of the President (Gelb and Grasmann, 2009). In Alaska and Norway, the management of the resource funds has been delegated to bodies that to a large degree are independent from politicians (Torvik, 2011).

On the other hand, it could be argued that the protection of resource revenue management from government inference is not necessarily always desirable. First, separating resource revenue management from the state seems unrealistic because countries with weaker institutions are likely to be the ones that do not set up reforms to limit the prerogatives and

control of political leaders over resource revenues. Second, one could argue that markets alone fail to deliver diversification objectives and that resource revenue management should be linked to broader industrial policy objectives, as determined by the state, in order to foster complementarity, rather than being managed in isolation to policy objectives. In addition, domestic public investments are not only commercially minded but also carry a social mandate, with an allowance for lower returns as a trade-off for public utility (Ross, 1999; Cammet et Diwan; 2016; Gelb, et al. 2014). Nevertheless, because social returns are often difficult to measure, the allowance for lower returns has allowed for corruption, cronyism, lobbying from special interests and political agendas to distort public investments. For instance, governments in oil rich countries have often used oil rents to buy popular support before elections through consumption subsidies, white elephant projects and other wasteful spending, rather than socially efficient projects (Robinson and Torvik, 2005). Strong benchmarks and guidelines should be put in place in order to define the allowance for investments of resource revenues that carry a social mandate beyond sole profits. In that sense, the example of successful SWFs such as the Khanazah National Berhad in Malaysia could offer the basis of relevant corporate governance lessons for similarly purposed funds in the MENA region. Further research is therefore required in this area.

6. Concluding remarks

The discourse on resource-based development has in recent years emphasized the “Norwegian model” while neglecting the role of export diversification and production. Departing from this view, this paper contributed to recent efforts to move resource revenue management debates beyond one-size-fits-all solutions by highlighting the need to adapt diversification strategies and resource revenue management to various contextual determinants (including the level of resource abundance per capita).

This study bears important implications for resource-rich economies of the MENA region that aim to diversify their economies. MRR countries such as Algeria and Iran face a higher urgency to pursue a resource revenue management model that differs from the one currently followed by VRR countries such as the UAE, Qatar and Saudi Arabia, which has been characterised by financial diversification and rents distribution to fuel present consumption rather than the transformation of the domestic productive structures.

It is evident that a different approach to resource revenue management is needed to stimulate the accumulation of productive capabilities in MENA countries. The approach developed in Chang and Lebdioui (2020) and applied in this paper could represent a suitable way forward for resource-dependent countries of the MENA countries. As any type of industrial policy, this approach is not without risks, but it needs to be weighed against the alternative and the status quo, which is far riskier and more costly for oil-producers, especially in the perspective of a low-carbon future.

A suitable analogy between resource-dependent countries and athletes was put forward in Al-Saffar, Elgouacem and Lebdioui (2020), who show that the diversification challenges faced

by several MENA countries is akin to the challenges that athletes face, and that even in the world of sports, financial diversification is rarely sufficient. While some superstar athletes might generate enough revenue throughout their careers that can sustain their lifestyles without additional effort, the greater share of athletes still have to find productive ways to make ends meet and accumulate wealth after their retirement. In the same way, most resource-rich countries need to seek alternative ways to generate income through expanding their productive capacities outside the extractive sector. Perhaps policymakers in MENA could find inspiration from George Weah, Kobe Bryant or Serena Williams, who exemplify how new ‘comparative advantages’ can be built and exploited despite careers that were initially dedicated to athletics!

References

- Al-Saffar, A.; Elgouacem, A. and Lebdioui, A. (2020). 'What resource-dependent countries may learn from athletes in order to diversify their economies', LSE blog. 27 May. <https://blogs.lse.ac.uk/internationaldevelopment/2020/05/27/what-resource-dependent-countries-may-learn-from-athletes-in-order-to-diversify-their-economies/>
- Araujo, J., B. Grace Li, M. Poplawski-Ribeiro, and Luis-Felipe Zanna, 2012, "Current Account Norms in Natural Resource Rich and Capital Scarce Economies." Manuscript, International Monetary Fund.
- Arezki, R. and F. van der Ploeg (2008). Can the natural resource curse be turned into a blessing? Role of trade policies and institutions, IMF Working Paper 07/55, International Monetary Fund, Washington, D.C.
- Arezki (2011) "Fiscal Policy in Commodity- Exporting Countries: Stability and Growth" in Arezki, R; T. Gylfason, and A. Sy (eds.) (2011) *Beyond the Curse: Policies to harness the power of natural resources*, Washington D.C.: IMF.
- Arezki, R; T. Gylfason, and A. Sy (eds.) (2011) *Beyond the Curse: Policies to harness the power of natural resources*, Washington D.C.: IMF.
- Auty, R.M. and Gelb, A.H. (2000) '*Political Economy of Resource Abundant States*', Paris: Annual Bank Conference on Development Economics.
- Barnett, S., and R. Ossowski, "Operational Aspects of Fiscal Policy in Oil-Producing Countries," 2003, in J. Davis, J. Ossowski, and A. Fedelino, eds., *Fiscal Policy Formulation and Implementation in Oil-Producing Countries*, (Washington, D.C.: International Monetary Fund).
- Bems, Rudolfs, and Irineu de Carvalho Filho, (2011), "The Current Account and Precautionary Savings for Exporters of Exhaustible Resources," *Journal of International Economics*, Vol. 84, No. 1, pp. 48-64.
- Berg A., Portillo, R., Yang, S.S.S and Zanna, L.F. (2012) "Public Investment in Resource-Abundant Developing Countries", *IMF Working Paper*, WP/12/274. Washington DC: International Monetary Fund.
- Brautigam, D., O.-H. Fjeldstad, and M. Moore, 2008, *Taxation and State-Building in Developing Countries: Capacity and Consent* (Cambridge: Cambridge University Press).
- Cammett M., I. Diwan, A. Richards and J. Waterbury (2016) *A Political Economy of the Middle East*, 4th Eds. Westview Press.
- Chang H.-J. (2007) "State-Owned Enterprise Reform", *United Nations DESA National Development Strategies Policy Notes*, New York: United Nations DESA.
- Chang, H-J. & Lebdioui, A. (2020) "From fiscal stabilization to economic diversification: the developmental management of resource revenues", *UNU WIDER working paper series*
- Cherif, R. and Hasanov, F. 2012 "Oil Exporters' Dilemma: How Much to Save and How Much to Invest", *IMF Working Paper*, WP/12/4 Washington DC: IMF.
- Cherif, R. and Hasanov, F. (2014). "Soaring of the Gulf Falcons: Diversification in the GCC

- Oil Exporters in Seven Propositions”, *IMF Working Paper* WP/14/177. Washington DC: IMF.
- Cherif, R., Hasanov, F., and Wang, L. (2018). “Sharp Instrument: A Stab at Identifying the Causes of Economic Growth” *IMF Working Paper* WP/18/117. Washington DC: International Monetary Fund.
- Collier, P., van der Ploeg, R., Spence, M. and Venables, A.J. (2010), “Managing Resource Revenues in Developing Economies,” *IMF Staff Papers*, Vol. 51, No. 7, pp. 841-118.
- Collier, P. and Laroche, C. (2015) “Harnessing Natural Resources for Inclusive Growth”, *Growth Brief*, International Growth Center, (March). Accessible at www.theigc.org/wp-content/.../IGCGrowthBriefNRMCollier2015.pdf
- Crivelli, E. and S. Gupta (2014) “Resource Blessing, Revenue Curse? Domestic Revenue Effort in Resource-Rich Countries”, *IMF Working Paper*, No. 14/5, Washington DC: IMF
- Davis, J., R. Ossowski, J. Daniel, and S. Barnett. 2003. “Stabilization and Savings Funds for Nonrenewable Resources.” In *Fiscal Policy Formulation and Implementation in Oil-Producing Countries*, J. Davis, R. Ossowski, and O. Fedelino, eds. Washington, DC: International Monetary Fund
- Devarajan, S. (2019). “How to use oil revenues efficiently” in Mohaddes, K., Nugent, J. B., & Selim, H. (Eds.). *Institutions and Macroeconomic Policies in Resource-Rich Arab Economies*. Oxford University Press.
- Di John, J. (2009) *From Windfall to Curse? Oil and Industrialization in Venezuela, 1920 to the Present*. University Park, PA: Penn State University Press.
- Eubank, N., (2012), “Taxation, Political Accountability and Foreign Aid: Lessons from Somaliland”, *Journal of Development Studies*, 48(4), pp. 465-480.
- Friedman, Milton (1957). *"The Permanent Income Hypothesis": A Theory of the Consumption Function*. Princeton University Press.
- Gelb, A. et al. (1988). *Oil windfalls - Blessing or curse?*. Washington, DC: World Bank. <http://documents.worldbank.org/curated/en/1988/10/2827247/oil-windfalls-blessing-or-curse>.
- Gelb, A. & Grasmann, S. (2009). “Déjouer la malédiction pétrolière”. *Afrique contemporaine*, no 229,(1), 87-135.
- Gelb, A. (2010) “Economic Diversification in Resource Rich Countries”, *Proceedings from the high-level seminar on Natural resources, finance, and development: Confronting Old and New Challenges, organized by the Central Bank of Algeria and the IMF Institute in Algiers, on 4-5 November*.
- Gelb, A., Tordo, S. and Halland, H. (2014). "Sovereign Wealth Funds and Domestic Investment in Resource-Rich Countries: Love Me, or Love Me Not?," *The World Bank*, issue 133, pages 1-5.
- Gylfason, T. (2011) “Natural resources: a mixed blessing?” in R. Arezki, T. Gylfason, and A. Sy *Policies to harness the power of natural resources*, Washington D.C.: IMF.
- Hertog, S. (2010). “Defying the resource curse: explaining successful state owned enterprises in rentier states.” *World Politics* 62(2) 261-301.

- Hertog, S. (2014). ‘Arab Gulf States : an assessment of nationalisation policies’. Technical Report, GLMM, Research Paper, 2014/1, Migration Policy Centre
- Hertog, S. (2020). ‘Why the GCC economic diversification challenges are unique’. LSE blog. 7th August. Accessible at <https://blogs.lse.ac.uk/mec/2020/08/07/why-the-gccs-economic-diversification-challenges-are-unique/>
- International Monetary Fund (2012) *Macroeconomic Policy Frameworks for Resource-Rich Developing Countries*. Washington, D.C.: International Monetary Fund
- Isaksson, A. (2009) “Public Capital, Infrastructure and Industrial Development”, *UNIDO Research And Statistics Branch*, Working Paper 15/2009.
- Jewell, A. (2016) “The Need for Subsidy Reform in Algeria”, *IMF Blog*, accessible at <https://www.imf.org/external/np/blog/nafta/083116.pdf> [last accessed September 15 2018]
- Karl, T.L. (1997) *The Paradox of Plenty: Oil Booms and Petro States*. Berkeley: University of California Press.
- Khan, M. (2007) “Governance, Economic Growth and Development since the 1960s”, *DESA Working Paper* No. 54 ST/ESA/2007/DWP/54
- Lebdioui, A. (2019a) *Economic Diversification and Development in resource-dependent economies: Lessons from Chile and Malaysia*. PhD thesis. University of Cambridge.
- Lebdioui, A. (2019b). “Chile’s Export diversification since 1960: a Free market miracle or a free market mirage?” *Development and Change*. 50(6): 1624-1663.
- Le Matin d’Algérie (2017). “Le Fonds de régulation des recettes épuisé depuis février”, September 8th, *Le Matin d’Algérie*, accessible at <http://www.lematindz.net/news/25295-les-fonds-de-regulation-des-recettes-epuise-depuis-fevrier.html> [last accessed August 18]
- Malik, M. and Nagesh T. (2019) “Fiscal Sustainability and Hydrocarbon Endowment per Capita in the GCC. *Oxford Energy Forum*. (118). Oxford: Oxford Institute for Energy Studies.
- McKinsey (2016) “Moving Saudi Arabia’s economy beyond oil”, accessible at <http://www.mckinsey.com/global-themes/employment-and-growth/moving-saudi-arabias-economy-beyond-oil> [last accessed 23 July 2018]
- Mehlum, H., K. Moene and R. Torvik (2006). Institutions and the resource curse, *Economic Journal*, 116, 1-20.
- Meller, P. and Zenteno, I (2013) “Diversificación De Exportaciones En América Latina: Experiencias Y Lecciones Para Políticas Públicas” in Patricio Meller (eds) *Recursos Naturales y Diversificación Exportadora. Una mirada de futuro para América Latina*, Cieplan, pp. 123-166
- Moore M. and Rakner, L. (2002): “Introduction: The New Politics of Taxation and Accountability”. *IDS Bulletin* 33 (3).
- North, D.C, J.J. Wallis, and B.R Weingast. (2009) *Violence and social orders: a conceptual framework for interpreting recorded human history*. Cambridge University Press.
- Ploeg, F. van der and S. Poelhekke (2008). Volatility, financial development and the natural

- resource curse, Oxcarre Research Paper 2008-03, University of Oxford.
- Pritchett, L. (2000) “The Tyranny of Concepts: CUDIE (Cumulated, Depreciated, Investment Effort) Is Not Capital”, *Journal of Economic Growth*, 5: 361–384
- Robinson, J.A. and Torvik, R. (2005) “White elephants”, *Journal of Public Economics* 89, 197- 210.
- Ross, M. (1999) “The Political Economy of Resource Curse”, *World Politics*, 51 (January), 297-322.
- Sachs, J.D. and A.M. Warner (1995) *Natural Resource Abundance and Economic Growth*, i National Bureau of Economic Research (1995) (Working Paper No. 5398, December)
- Sachs, Jeffrey D. (2007) “Chapter 7: How to Handle the Macroeconomics of Oil Wealth?,” in Macartan Humphreys, Jeffrey D. Sachs, and Joseph E. Stiglitz, eds., *Escaping the Resource Curse*, (New York: Columbia University Press).
- Shailer, G. (2004) *An Introduction to Corporate Governance in Australia*, Sydney: Pearson Education Australia
- Tamirisa, N. T. & Duenwald, C. (2018). *Public Wage Bills in the Middle East and Central Asia*. Washington D.C.: International Monetary Fund.
- Takizawa, Hajime, Edward H. Gardner, and Kenichi Ueda, 2004, “Are Developing Countries Better Off Spending Their Oil Wealth Upfront?” IMF Working Paper WP/04/141.
- Torvik, R. (2011) “The Political Economy of Reform in Resource-Rich Countries” in Arezki, R; T. *Gylfason*, and A. Sy (eds.) (2011) *Beyond the Curse: Policies to harness the power of natural resources*, Washington D.C.: IMF.
- UNCTAD Secretariat, 2006, “Boosting Africa’s Growth through Re-Injecting “Surplus” Oil Revenue: an Alternative to the Traditional Advice to Save and Stabilize,” Technical Report, The United Nations Conference on Trade and Development,). July 28.
- UNCTAD (2019) State of Commodity Dependence. Geneva: United Nations.
- United Nations Development Program (2016), “Human Development Report 2016: Human development for everyone”, *Country Explanatory Notes (Chile)*, New York: UNDP.
- Van der Ploeg, F. (2010). “Why Do Many Resource-Rich Countries Have Negative Genuine Savings? Anticipation of Better Times or Rapacious Rent Seeking,” *Resource and Energy Economies*, Vol. 32, pp. 28-44.
- Van der Ploeg, F., and A.J. Venables. (2010). “Absorbing a Windfall of Foreign Exchange: Dutch Disease Dynamics.” *OxCarre Research Paper*, n.52, Oxford.
- Van der Ploeg, F. and Anthony J. Venables, (2011). “Harnessing Windfall Revenues: Optimal Policies for Resource-Rich Developing Economies,” *The Economic Journal*, Vol. 121, No. 551, pp. 1-30.
- Venables, A.J., (2010). “Resource Rents; When to Spend and How to Save,” *International Tax and Public Finance*, Vol. 17, pp. 340-356.
- World Bank. (2007). *Middle East and North Africa Region: 2007 Economic Developments and Prospect, Job Creation in an Era of High Growth*. Washington DC: World Bank.
- World Bank. (2011). *The Changing Wealth of Nations: Measuring Sustainable Development*

in the New Millennium. Washington, D.C.: World Bank.

World Bank (2013), “Malaysia Economic Monitor: Harnessing Natural Resources” *World Bank*, Accessible at http://www.worldbank.org/content/dam/Worldbank/document/EAP/malaysia/Malaysia_Economic_Monitor_June2013.pdf