THE ELUSIVE QUEST
FOR ARAB ECONOMIC DEVELOPMENT

Ahmed Galal and Hoda Selim

Working Paper No. 722
THE ELUSIVE QUEST
FOR ARAB ECONOMIC DEVELOPMENT

Ahmed Galal and Hoda Selim

Working Paper 722

November 2012

This paper draws on a previous chapter prepared for the Handbook on Development Thought, which is forthcoming in 2013. We would also like to acknowledge the constructive comments we received from Bruce Currie-Adler, Rohinton Medhora and James Robinson and the excellent research assistance of Ramage Nada.

Send correspondence to:
Ahmed Galal
Economic Research Forum
agal@erf.org.eg
Abstract

This paper reviews the development experience of the Arab countries since World War II, arguing that the lack of inclusive economic and political institutions is the primary cause for the current state of underdevelopment in the region. While macroeconomic mismanagement and oil abundance are important determinants of performance, these factors are shaped primarily by the prevailing political institutions which predated the discovery of oil. In the oil-poor Arab countries, limited progress is attributed to an authoritarian bargain in which the rulers exchanged economic benefits to the poor and the middle class for political acquiescence. Finally, the paper concludes by speculating about whether the recent Arab revolts will spread to the rest of the region and whether these revolts will be remembered in the future as a critical juncture towards more inclusive institutions and shared progress or not. It does not offer a conclusive answer, but suggests that early indications are positive.

JEL Classifications: O11, O53, N15.

Keywords: Middle East, Arab spring, economic development, institutions, oil curse, authoritarian bargain, modernization.
1. Introduction

Today, Arab countries are not considered developed by international standards. Not only do they fall behind advanced economies in terms of per capita income and other welfare indicators, but also lag behind more successful emerging economies such as South Korea, Turkey or Brazil. Even though per capita income in some oil-rich countries is relatively high, this level of income is not sustainable. In the oil-poor Arab countries, the living conditions are less favorable. Moreover, the performance of the region since World War II does not indicate any tendency towards converging to the standards of living in advanced countries.

Several explanations have been advanced as to why economic development in the region proved elusive. One explanation is that the region did not adopt the “right” kind, mix and sequence of market friendly policies (as elaborated, for example, by Williamson 1990, or World Bank 2009). In natural resource-rich countries, it would be pointed out that macroeconomic policies left much to be desired, especially in terms of smoothing out consumption and savings over time, safeguarding against the volatility emanating from oil price movements, or efficiently managing the large revenues from natural resources. In natural resource-poor countries, supporters of this view would identify market distorting policies and excessive government intervention as the culprits for modest performance. If this explanation is the right one, all oil-rich and oil-poor countries need to do is to adopt the “right” set of policies and development will be within reach.

Other explanations beyond economics have been advanced, effectively placing the region under the heading of “Arab Exceptionalism” either because of distinct cultural features and/or because of the abundance of oil. Lewis (2002), for example, argues that the lack of separation of Mosque and State in Islamic countries is what caused things to go in the wrong direction. On the other hand, Ross (2001), for example, argues that the abundance of oil lead to the emergence of rentier states, made more resources available for repression and aborted the modernization effect of rising income, education and urbanization.

In this paper, while we do not dismiss the above explanations, we argue, along the lines of Acemoglu and Robinson (2012), that the primary cause for underdevelopment in the region is the extractive nature of political (and economic) institutions, which predate the discovery of oil or find their roots in colonial periods. After all, these countries have been ruled by a narrow elite which devised rules of the game in their favor and those of their supporters by creating barriers to entry, providing special concessions, limiting opportunities and discouraging entrepreneurship and innovation. As for culture, this is not destiny, as countries with a majority of Muslim population, such as Turkey, Malaysia and Indonesia, offer recent examples of positive development outcomes.

If the above argument holds, it is tempting to ask whether the Arab Spring will be seen in the future as a turning point towards more inclusive institutions and shared prosperity. The answer to this query is unfortunately not straightforward. The outcome will depend critically on whether the new political institutions are representative of the population at large, whether they involve checks and balances and whether they respect individual rights.

To elaborate this argument, the rest of the paper is structured as follows. Section II assesses development outcomes in the Arab region, including the extent to which member states are catching up with developed countries. Because of the central role of oil, we devote section III to a discussion of the oil-rich countries, especially in terms of how well they managed their resources, how oil may have impacted their institutions and how institutions may have shaped their utilization of resources. In section IV, we turn to oil-poor Arab countries,

---

1 The Arab region refers to members of the League of Arab states, which include Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, United Arab Emirates, Yemen.
exploring their economic reform efforts and how these reforms were influenced by political institutions. Section V discusses the potential implications and possible trajectories of the “Arab spring.” Throughout, we do not discuss individual countries in any depth despite their distinct history and features, leaving this line of thinking for further research.

2. The State of Development in the Arab World

There is no uniform way to measure development outcomes and the well being of citizens. However, available indicators unambiguously support the assertion that Arab countries are not among the most advanced countries in the world, nor are they likely to catch up in the near future.

2.1 Per capita income and income convergence

Growing at 1.7 percent per annum, it took the region from 1973 to 2010 to double GDP per capita. At US$3,022 (constant US$2000) in 2010, GDP per capita has not been converging to the levels of high income countries. On the contrary, the region’s GDP per capita relative to that of OECD has declined from 15 percent in 1980 to 9 percent in 2002 (Figure 1). In contrast, East Asian countries, which had similar GDP per capita to that of the Arab countries in the mid-1970s, made substantial progress. In 2010, average per capita income in East Asia was 18.5 percent of the OECD, up from 15 percent in 1980. Some countries, like South Korea, did even better, reaching 58 percent of the OECD per capita in 2010, up from 13 percent in 1960. The Arab countries also fell behind Latin America and were only ahead of Sub-Saharan Africa.

Within the region, the oil-rich economies exhibit low per capita growth-high volatility pattern (Figure 2). The oil-poor Arab countries did better, averaging 2.5 percent per capita GDP growth during the period 1961-2010 compared with only 1.4 percent during the same period for the oil-rich economies. Volatility of economic growth (measured by the ratio of standard deviation of growth over the mean) was also higher in the oil-rich countries compared with oil-poor countries. The modest economic growth of the oil-rich countries has been attributed in part to the adverse effects of volatile commodity terms-of-trade between 1970 and 2007, which offset the positive impact of commodity booms (Cavalcanti et al. 2012).

In terms of catching-up, oil-rich economies show alarming trends. In 1975, per capita income in the GCC was almost the same as that of OECD (Figure 3). In 2010, the average was slightly less than one third. Correspondingly, the trend is more favorable for the oil-poor economies, particularly since the early 2000s.

2.2 Poverty and inequality

High economic growth is supposed to induce lower levels of poverty (Dollar and Kraay 2002). However, the Arab world defies this prediction (Figure 4). Notwithstanding the modest per capita growth rates since 1961, poverty in the region is relatively low. Using the US$1.25 poverty line (in 2005 PPP), poverty in the region is only around 4 percent, which is less than one-fifth of the average poverty rate for developing countries and is similar to the much richer Latin American region. Based on the US$2 a day higher threshold, poverty is still less in the Arab countries than half of the average for developing countries. The main caveat here is that a significant proportion of the poor in the region are clustered between the US$ 1.25 and US$2 poverty lines, which means that a modest shock in monetary income can move the non-poor to the poor category and vice versa (Abu Ismail et al. 2011a).

Over time, poverty was reduced in the Arab countries, especially since the 1980s. Using the measure of US$1.25 per day, poverty declined by more than a third to 2.7 percent in 2008. Based on WDI database and including only developing countries in MENA, poverty was more than been halved using the US$2 a day to 14 percent also in 2008. This makes the region the second best performer in terms of poverty reduction after East Asia and Pacific.
Yet, as these measures do not capture country-specific household characteristics, Abu Ismail et al. (2011b) uses national poverty lines and shows that poverty is higher and its reduction is less impressive than noted earlier (19 percent in the 2000s down from 22 percent a decade earlier). One exception to this trend is Egypt where poverty increased from 19.6 in 2005 to 22 percent in 2009 (World Bank 2011).

Turning to inequality, Bibi and Nabli (2010) surveys the literature on the Arab world and concludes, on the basis of average Gini coefficients, that the region is a “medium inequality” region. As shown in Table 1, Arab countries fare better than Latin America (where inequality is the highest) and Sub-Saharan Africa, but are more unequal than the averages for East Asia, South Asia and by far Europe and Central Asia. Judging by the ratio of the richest to the poorest quintile, Arab countries are only worse than two regions, Europe and Central Asia and South Asia. However, more disaggregated work shows that inequality has increased over time in some countries like Yemen, Syria and Egypt but even then it remains low (Belhaj and Wissa 2011).

It is well known that distribution measures do not change significantly over time (Deininger and Squire 1996). For the Arab region, there is a modest drop in the Gini coefficient between the 1970s and 1990s. This modest improvement and the low levels of inequality in general have been attributed to several factors. Some suggest that the improvement is the result of a de facto improvement in the income of the poorest quintile which increased by more than 21 percent between 1970 and 1999 (Page 2007). Others suggest that the low levels of inequality are due to the “zaka” factor.² Consistent with the Islamic factor, Gradstein et al. (2001) reports an inequality reducing effect of Islam of between 10 and 14 Gini points leading the study to conclude that Islamic countries are the “most intrinsically equal” after controlling for per capita income and the political system. A third explanation is the significant use of consumer subsidies and other welfare policies, which may reflect a social contract between the rulers and their citizens as will be explained in the next two sections.

These explanations take the Gini coefficients at face value. However, their accuracy has been called into question. To begin with, household surveys are known for failing to capture the expenditure of the richest percentile of the population. In the Arab countries, most Gini coefficients are based on expenditure, not income, data, which tend to underestimate inequality. Perhaps more importantly, Gini coefficients do not account for differences in wealth, where inequality tends to be more pronounced. For these reasons, it is important to look at other measures of inequality such as inequality of opportunity, for example, in terms of access to education and health (Bourguignon et al. 2007). In this context, Belhaj (2012) provides evidence that inequality of opportunity has increased across age groups in Egypt even though its contribution to earnings inequality declined from 22 percent in 1988 to 15 percent in 2006. Assaad et al. (2011) shows that the Arab world faces unequal opportunities in child health due to circumstances, which lie beyond the control of families.

### 2.3 Human development and unemployment

Development outcomes cannot be measured only in terms of change in per capita income and its distribution. Measures of human development are equally important, including child mortality, educational attainment and life expectancy. By these measures, the Arab countries are far behind advanced countries as well as developing regions except Sub-Saharan Africa. As shown in Table 2, this observation holds whether we consider enrollment in primary or secondary schools, life expectancy, or infant mortality rates. Fertility rates in the region also remain much higher than elsewhere, averaging 3.3 per woman.

---

² Zaka is a mandatory wealth tax according to which Muslims are supposed to donate 2.5 percent of their wealth each (lunar) year to charitable causes.
Over time, human development indicators witnessed significant improvements in the Arab region. Between 1960s and 1990s, governments broadened access to free education and primary health care services (Table 3). The most notable improvements were seen in Egypt, Tunisia, Sudan and Algeria. By 2009, close to 100 percent of the children in the region were enrolled in primary schools and enrollment in secondary schools went up from 20 percent of the relevant age cohort to 74 percent. Life expectancy went up by some 25 years, fertility rates declined by 4 infants per woman and infant mortality rates went down by more than 100 per thousand lives at birth.

Notwithstanding this progress, the increased supply of presumably skilled labor was not put to productive use. Measured by the ratio of employment to total population (Figure 5), employment in the region stagnated at around 45 percent during the period 1991-2011. At this level of employment, the region falls below all other regions, including Sub-Saharan Africa.

Viewed from the unemployment perspective, Arab countries also accommodate one of the highest rates in the world (9.3 percent) (Figure 6A). Arab unemployment has very specific features. As shown in Figure 6B, it is essentially concentrated among the young and educated. Youth unemployment was close to 24 percent over the past 10 years. Arab unemployment is also gender biased, with unemployment rates for women of about 18 percent compared to 8 percent for men. These rates are almost double the corresponding rates in the regions of Latin America and Caribbean and Europe.

Demographic changes in the region (approximately half of the population is under the age of 25) are part of the problem, causing intense labor market pressures. The share of the working-age population (15-64) increased from 51 percent in 1970 to 62 percent by 2010 and is expected to peak at 66 percent in 2040 (UNDP 2011). Labor force growth is one of the highest in the world, exceeding 3 percent per annum (ILO 2009). This translated in 2009 into more than 4 million new entrants to the labor market with more than half belonging to Egypt, Sudan, Morocco, and Algeria (Abu Ismail et al. 2011b).

Within the region, the level of unemployment in the oil-rich Arab countries tends to be low at around 4 percent with the notable exceptions of Yemen and Algeria. The GCC labor markets rely on foreign labor to compensate for the scarcity of nationals to the point where the proportion of the domestic work force to total labor force is invariably under one half (Assaad and Ramadan 2008). Most employed nationals tend to work for the government. As for non-oil-rich economies, unemployment rates tend to be higher (approximately 11 percent), especially in countries like Tunisia and Jordan.

Over time, unemployment increased in the 1990s compared to earlier decades. In the 1970s, the oil boom led to a steady decline in unemployment in resource-rich countries. And despite the increase in demand for labor relative to capital, the rates have remained low since. For different reasons, a similar pattern emerged in the resource-poor economies. Under the influence of populist policies in the 1960s, all graduates were assured employment in government. In the 1990s, resource poor countries, including Egypt, lifted the policy of guaranteeing government jobs. However, the legacy of earlier policies lingered on. Economic growth was either modest or capital intensive to create enough jobs for a growing labor force, especially in oil-rich countries (Keller and Nabli 2007). Furthermore, Assaad and Ramadan (2008) argue that the policy of public sector hiring at higher than market wages made new entrants into the labor market prefer to queue for years for a public sector job than search for a job in the private sector. They further argue that the education systems adapted to meet the strong demand for credentials that allow entry into the public sector to the detriment of the skills required in a private sector economy.
2.4 Long-term sustainability

One of the main concerns for long term sustainability in the region is the way governments are engaged in the depletion of natural resources and the concern they show for the environment. On both accounts, the evidence is not favorable. Natural resources are being depleted at rates well above sustainable levels (Abou Ali 2012). Adjusted net savings (a proxy for sustainability) have on average declined from 6 percent of gross national income to about 3 percent in 2008. It is negative for some oil producing countries including Saudi Arabia, Sudan and Syria. At the same time, most oil producing countries have lower scores and ranking with respect to the Environmental Performance Index (EPI), with some of them having the highest levels of energy intensity of GDP in the World (Global Energy 2011).

In sum then, the state of development in the Arab world, oil-rich or not, is not satisfactory. On the positive side, poverty in the region is relatively low. Also, notable progress has been made on several human development indicators, including enrollment in education, life expectancy and fertility and infant mortality rates. However, economic growth in per capita terms remained modest and volatile, especially in oil-rich countries. Inequality of opportunity is high and employment opportunities are modest relative to a growing labor force. The situation is particularly acute with respect to youth and women. This conclusion calls for an explanation of where the region failed and how best to move forward. In an attempt to answer these questions, the next section looks at oil-rich countries, the following at oil-poor countries.

3. Economic Development and Politics in Oil-Rich Arab Countries

For a group of nine Arab countries, oil is the main source of income and economic growth. For this group, the share of oil rents to GDP, excluding other hydrocarbon sectors, fluctuated around 36 percent between 1974 and 2009 (Figure 7). The percentage is much higher for Iraq (60 percent), Kuwait (48.5 percent), Saudi Arabia (44 percent) and Oman (42 percent). Figure 7 also indicates that their economic growth mirrors oil revenues, which themselves depend primarily on movements in oil prices. On the face of it, this suggests that the economies of these countries are defined largely by oil booms and busts. And given that these economies have not been successful in joining the group of advanced countries, it is tempting to attribute their failure to an oil curse.

This interpretation may or may not hold. The early literature considered natural resource abundance as a source of economic development because of its ability to generate income, savings and investment that would sustain future output growth and enable governments to provide public goods (Nurkse 1953 and Rostow 1960). However, country experiences subsequently showed that resource abundance is associated with poor development outcomes (Gelb 1988) and slower economic growth than resource-poor countries. This curse has been attributed to several causes, the most important of which are: (i) the Dutch Disease and low savings, (ii) the “political resource curse”, and (iii) “extractive institutions”. This section explores these transmission mechanisms.

3.1 Dutch disease, export diversification and savings

One of the potential channels of the resource curse is the Dutch disease. Corden (1984) provides a theoretical framework in which the appreciation of the real exchange rate due to increased resource revenues spent on non-tradable goods leads to a decline in the competitiveness of the non-resource sector, or skews the composition of exports away from manufacturing exports (Sachs and Warner 1995). In some cases, this inefficient specialization

---

3 Adjusted net savings take into account investments in human capital, depletion of natural resources and damage caused by pollution.
4 EPI ranks 163 countries across ten policy categories covering both environmental public health and ecosystem vitality (Yale University 2011).
in resource goods and related non-tradable activities render the economies prone to output collapses after an oil boom (Hausmann and Rigobon 2003) and more generally unable to sustain economic growth due to low levels of diversification.

In the oil-rich Arab countries there is evidence of real exchange rate appreciation between 1975 and 2005 (World Bank 2012). Table 4 reports the estimated deviations from equilibrium real exchange rates. Column 1 gives the average deviation over sub-periods (ranging from 5 to 8 years, depending on the country) and column 2, the percentage of periods with overvaluation. Although overvalued real exchange rates are not universal across all countries during all periods, Oman, Saudi Arabia, Algeria and Libya suffered significant overvaluation in most years. This misalignment or Dutch Disease has undermined the competitiveness of non-oil exports, especially manufacturing. According to Nabli et al. (2007), the exchange rate overvaluation reduced manufacturing exports by 18 percent (as a percentage of GDP per year) between 1970 and 1999. Ianchovichina (2011) also found that non-oil exports of Algeria, Iraq, Libya and Yemen were only one fifth of their predicted levels.

Compared to other developing regions, the Arab region’s non-oil merchandise exports relative to total exports are much lower (Figure 8). Moreover, the contribution of industry to GDP trended downward over time, from 58 percent in 1975 to around 48 percent in 2009. This suggests that Arab oil-rich economies were unable to diversify their economies, which is problematic given that oil is not a renewable resource. This is a reminder of the fear expressed once by King Faisal of Saudi Arabia who said (quoted from an interview with his oil minister, Shaikh Yamani): “In one generation we went from riding camels to riding Cadillacs. The way we are wasting money, I fear the next generation will be riding camels again.”

Turning to savings, because oil revenues are subject to depletion, rational governments need to smooth out consumption well beyond the period of peak resource revenues and stock precautionary savings to ensure inter-generational equity (Collier et al. 2010). They also need to gradually transform their oil wealth into assets whose income stream would sustain a stable level of government spending. This literature advises resource-dependent governments to develop counter-cyclical fiscal policies, resisting the temptation to over spend during oil booms.

The empirical evidence shows the opposite: fiscal policy in commodity-exporting countries in general is pro-cyclical (Villafuerte and Lopez-Murphy 2010). Arab resource-rich countries are no exception (Abdih et al. 2010). Exacerbating the problem further is that these countries have had negative genuine saving rates, which suggests that they squander their natural resources at the expense of future generations (World Bank 2006).

Finally, there is evidence that oil revenues are highly volatile, which is costly in terms of economic growth. Hausmann and Rigobon (2003) estimates that a one standard deviation shock to the price of oil (of 30–35 percent) can generate an income shock as high as 6 percent of GDP in an economy where oil accounts for 20 percent of GDP. In the case of the oil-rich Arab countries, Cavalcanti et al. (2012) shows that oil price volatility has negatively impacted growth.

All this is to say that macroeconomic management in oil-rich Arab countries leaves much to be desired.

3.2 Political resource curse

Turning to the impact of oil on politics, modernization theory predicts that rising income is associated with democratization (Lipset 1959). However, Ross (2001) argues that this prediction may not hold in oil-rich countries. He identifies three mechanisms through which oil revenues enable governments to maintain their authoritarian rule. First, income from
natural wealth is said to breed a “rentier-state”, allowing governments to benefit their supporters and buy off political consensus. Second, it enables governments to “repress” the population by acquiring the means to do so. Finally, oil revenues are not always associated with bringing about the cultural and social values that promote democracy and “modernization”. A fourth mechanism, not mentioned by Ross, is that oil wealth could sustain autocratic regimes by insulating them from the pressure from the West to democratize.

There is a large body of literature that supports the claim that oil hurts democratization (Jensen and Wantchekon 2004), recently disputed by Haber and Menaldo (2011). Studies focusing on the Arab region reach a similar conclusion (Andersen 1987; Elbadawi and Makdisi 2011).

The logic behind the assertion that oil sustains authoritarianism rests on several grounds. The first is that oil revenues breed “rentier states”, a proposition made by El-Beblawi and Luciani (1987) to describe Arab oil-rich countries. If governments derive large sums of money from oil, they can afford to apply low tax rates and reduce the pressure for more accountability. The figures provided in Table 5 point out that most governments derive a large fraction of their revenues from oil, in fact in excess of two-thirds of total revenues. By virtue of these revenues, they are able to apply low tax rates to the point where tax revenues as a percent of total revenue are less than 6 percent in all countries except Algeria. Oil rents thus break the link between taxation and representation suggested by Tilly (1975).

Large oil rents also enable governments through public expenditure to engage in patronage and appeasing of citizens. Furthermore, they rise sharply at times of threats to the regime. In concrete terms, between 2003 and 2010, subsidies and transfers in the sample of countries listed in Table 9 have ranged between 14 and 35 percent of total expenditures. Citizens of Kuwait are entitled to receive annual transfers from oil rents. Beyond explicit subsidies and transfers, citizens in the GCC are provided free healthcare, education and social security. Utilities (electricity, water and fuel) are also subsidized. Perhaps more importantly, the most frequently used mechanism for patronage is the provision of well remunerated public jobs to nationals (Table 5 and Figure 9). Hodson (2011) describes these jobs as for life, paying high wages and entailing short working hours and generous fringe benefits. The average salary of Saudi civil servant is three times the average wage for Saudis in the private sector. Pension packages are also generous.

When political unrest mounted in 2011, oil rents were used by the GCC governments to calm down citizens. Kuwait and Bahrain responded by giving out cash, Bahrain and Oman provided public sector jobs, and Saudi Arabia and Oman raised workers’ wages and benefits. According to Hertog (2012), Saudi Arabia approved an increase in expenditure by US$130 billion to finance the creation of 120,000 new public sector jobs, building 500,000 houses, setting a minimum wage of US$800 in the public sector, a one-time bonus to incumbent civil servants and the creation of a general unemployment assistance scheme. Clearly, these transfers increase citizens’ welfare, but they are also politically motivated.

Turning to the “repression” channel, it is evident that political demonstrations are a rarity in the Gulf countries. Is this a reflection of satisfaction with the ruling elite or repression? Well, recent events in Oman and Bahrain may help with the answer. Encouraged by the success in neighboring countries in toppling-off their autocratic rulers, pro-democracy protests took place in these two countries in the early 2011. In response, governments resorted to the security apparatus, which is well funded by oil revenues. More broadly, some oil-rich economies (except Algeria and Qatar) spend between 20-30 percent on the military and police forces. Moreover, Bellin (2004) adds that these regimes often maintain strong personal linkages with the coercive apparatus by appointing family members in key branches of the
military and security forces. In Algeria, the military is very strong to the point that it was said that: “every state has an army but in Algeria the army has a state.” (Quote from Mohammad Harbi, cited in Le Soir de Bruxelles, Jan. 11, 2002).

With respect to the “modernization effect”, certain occupational specializations, urbanization and better education are supposed to accompany economic development and these changes should produce a population that is better able to organize and bargain for greater political demands (Inglehart 1997). The problem is that oil money could be used to prevent or at least slow down these social changes. In particular, the presence of rents may distract governments from the need to develop human resources. Citizens of resource-rich economies may also find themselves “locked in low-skilled natural resource-based industries” that weaken the incentives for good education and earning power (Gylfason 2001).

Many of these features seem to characterize oil-rich Arab countries, especially in terms of education, urbanization and class transformation. Farsoun (1988) argues that those who benefited from social changes were those related to the ruling family. Other intellectuals were absorbed in unproductive government bureaucracies. In Saudi Arabia, Hamzawy (2006) argues that modernization and urbanization changed the social map and created a stable middle class but this class remains too weak to make demands for reforms.

Finally is the “external” factor. Motivated by self-interest, the abundance of oil in the Arab countries made the region of geopolitical strategic importance to the West. This reality made these regimes less vulnerable to external pressure to adopt political openness (Diamond 2010). Not only this, Bellin (2004) goes further to suggest that the West has supported the regimes in Saudi Arabia and Algeria because of the belief (perhaps mistaken as he says) that stability of these regimes would assure them a regular supply of oil and containment of an Islamist threat.

### 3.3 Extractive institutions and oil

In the above section, the argument ran from oil to democracy. However, a more compelling case can be made in favor of the causality running the other way around, from political institutions to oil. So rather than speaking of a political resource curse, one should probably speak of an institutional resource curse. In the latter case, rulers do not face significant restraints on their power and enjoy ample access to rents which they use primarily for private rather than social good. Accordingly, oil wealth is not a curse in its own right, its management is. The political resource curse is a symptom; extractive institutions are the primary cause.

This argument is not new. However, it has recently been developed more fully by Acemoglu and Robinson (2012). In their book, they attribute the failure of nations to the concentration of power in small elite that makes the rules in their own favor at the expense of the majority. These rules tend to create barriers to entry, provide special concessions, limit opportunities, and discourage entrepreneurship and innovation.

Focusing on oil countries, Robinson et al. (2006) built a theoretical model explaining how institutions impact the rate of extraction of oil, how oil booms impact the extraction path, and how abundance of revenues affect the behavior of politicians. They conclude that:

“The overall impact of resource booms on the economy depends critically on institutions since these determine the extent to which political incentives map into policy outcomes. Countries with institutions that promote accountability and state competence will benefit from resource booms since these institutions ameliorate the perverse political incentives that such booms create. Countries without such institutions however may suffer from a resource curse.”
These predictions are supported by several studies, the key conclusion of which is that the oil curse is not destiny and development outcomes depend on governance (Mehlum et al. 2006). Disaggregating governance, Collier and Hoeffler (2009) shows that the presence of a system of checks and balances limits abuse of political power. Elbadawi and Soto (2012) shows that resource-rich economies with a high degree of inclusiveness (a measure of democracy) and strong political checks and balances turn the resource curse into a blessing.

It is of course possible that oil abundance can and does provide an opportunity to weaken institutions and increase corruption. And indeed there is some evidence to that effect (Leite and Weidman 1999). Focusing on the Arab countries, Salti (2008) also shows that resource booms make institutions weaker. However, this evidence does not negate the view that institutions are the primary driving force of how oil impacts development. These institutions often precede the discovery of oil and they tend to linger beyond the discovery of oil. Looking at institutions in the oil-rich Arab countries, they seem to carry the features of extractive institutions described above. In 2011, out of the 115 electoral democracies in the world, 87 were considered “free”, of which none is an Arab oil-rich economy (Freedom House 2012). Only one country is considered partly free, Kuwait. This pattern has become worse between 2000 and 2010, especially with respect to measures of voice and accountability, political stability and corruption (Figure 10). There have been some improvements with respect to measures of government effectiveness and regulatory quality. But, these are the areas where private sector’s interest is most affected, not the population at large.

The prevailing institutions in the region today are not the product of oil; they predate the discovery of oil. For a long time, rulers in the region have relied on a loyal base of supporters through selective favoritism and discretionary patronage. They have also derived strength from their alignment with external powers when the two interests coincided. This pattern has changed somewhat over time, but its underlying premise remains valid today.

In tracing the roots of extractive institutions in some oil rich countries in the region, Atallah (2011) provides very useful insights. He argues that the geo-strategic locations and the strength of certain religious or economic classes are behind today’s institutions. For Oman, Bahrain and Qatar, their geographic proximity to India, where Britain’s colonial interests lied in the early 20th century, shifted the balance of power in favor of the local rulers who were loyal to the British. To gain their loyalty, Britain provided them with military and fiscal support. Enjoying external rents, the rulers had little incentives to bargain with various groups and could ignore demands for political participation. In these countries, the discovery of oil merely substituted the subsidies from the British.

Countries that were geographically distant from Britain placed emphasis on coalition-building with internal players, either religious or economic groups. In Saudi Arabia, the ruling family “Al Saud” built an alliance with a religious group called “Al Mutawwa”. In return, the ruling family gave “Al Mutawwa” a platform through which they can promote their religious interpretation of Islam. The discovery of oil did not change this coalition and may have strengthened it.

In Kuwait, the set-up was different and more conducive to political representation. Crystal (1989) and Atallah (2011) tell the story as follows. Because there was no oil, the rulers depended on the merchants for revenues which pushed them to concede some political power in return for fiscal backing. An assembly was created as early as 1938, even though it was dissolved soon afterwards. The discovery of oil provided the ruling elite with enough

---

5 A country is free when there is open political competition, a climate of respect for civil liberties, significant and independent civic life and independent media.
financial leverage to weaken the link with the merchants. However, the strength of this class enabled them to negotiate giving up some political rights in return for a share in the rents.

Over time, all rulers in the region gradually expanded their patronage networks to friends and family. Saudi Arabia and Kuwait “institutionalized family members into government positions, partly to give them a stake in the system and partly to monitor them” (Atallah 2011). An elite of “rent-seeking pseudo-entrepreneurs” became intertwined in the state capture of resource rents (Dauderstädt and Schildberg 2006). And, according to Nabli (2007), governments in these countries failed to create a dynamic and competitive private sector. Rather than promoting competition, they tended to extend favors to a privileged group to ensure their support to remain in power under authoritarianism and weak accountability. Over time, this group became the guardian of preserving the status quo and the strongest opponent of competitions. Ghalioun (2004) points out that the stagnation of the elite led to a “kind of hereditary aristocracy” that contributes to the durability of autocracy.

In sum, the modest progress made by oil-rich Arab countries cannot be blamed simply on the way the economy was managed or on the abundance of oil. Extractive institutions, which predate the discovery of oil, seem to be the true culprit. Oil may have played a role in keeping these countries from going through an Arab spring, as some neighboring countries did.

4. Economic Development and Politics in Oil-Poor Arab Countries

The oil-poor Arab countries share many of the characteristics of other developing countries. Furthermore, most of them attempted to develop their economies after independence in the post WW II era. The development strategies they adopted mirrored the evolution of thinking about development. More than half a century later, none of the oil-poor Arab countries was able to join a group of such successful emerging countries as Brazil, Chile, Turkey, or South Korea. More broadly, very few countries in the developing world were in fact able to do so according to the Commission on Growth and Development Report (2008). Is this outcome the product of adopting the wrong recipes or is it the product of extractive institutions? We argue that it is the latter for the most part.

In the remainder of this section, we first characterize the development strategies adopted by the oil-poor Arab countries. We then analyze the nature of their institutions as well as their roots.

4.1 Development strategies

Most developing countries, including oil-poor Arab countries, started their development effort in the 40s, 50s, and 60s by employing an import substitution strategy (ISS). In this strategy, the state plays a leading role in the development process to compensate for widespread incidents of market and coordination failures. Countries like Egypt, Tunisia, Jordan, and Morocco encouraged industrialization through high tariffs and quantitative restrictions on imports, large public sector projects, and central planning to ensure balanced economic development. They also pursued a grand welfare agenda through such instruments as land reform, free access to social services (health and education) and employment guarantee schemes.

The import substitution policies produced remarkably positive results in its early phases, particularly in terms of economic diversification, inclusion of marginalized groups, and higher levels of employment. However, the limitations of central planning, inefficiency of state-owned enterprises, and the drying up of resources to finance social programs led to a movement towards greater reliance on market forces and private sector initiatives. In the 80s and 90s, economic growth became the fundamental objective of reform. The adoption of the “Washington Consensus” agenda was credited with bringing about macroeconomic stability, higher economic growth, and in some cases poverty reduction (Dollar and Kraay 2002). Thus,
countries like Tunisia, Egypt, Morocco and Jordan adopted such reforms as removing price controls, opening up their economies to trade and investment, privatization, deregulation and improving the business environment. The primary focus of these reforms was on economic growth through capital accumulation and improved productivity. The recent uprisings in some oil-poor Arab countries (in Tunisia, Egypt, Yemen and Syria) confirm that these policies fell short of achieving inclusive growth and equality of opportunity for citizens.

4.2 The underlying social contract

The above narrative suggests that oil-poor Arab countries essentially followed development strategies that reflected the evolution of thinking about development. So, what went wrong? The easy answer is to say that these countries did not adopt the right kind, mix or sequence of recommended policies (Dasgupta et al. 2002). But this argument is only valid to some degree, and a more compelling argument is that the ruling elite selectively adopted policies that supported their stay in power.

Supporting the view that governance was narrowly concentrated in a few hands and exercise of power was selective are the indicators presented in Figure 11. The most striking observation from Figure 11 is that all indicators are negative and have in fact deteriorated between 2000 and 2010. This observation applies in particular to the perception of voice and accountability, political stability, the rule of law and control of corruption. For sure, there has been some improvements in the quality of regulation and government effectiveness during this period, but these improvements, while desirable, are consistent with the view that the regimes were putting in place measures that foster their interest and those of their close supporters in the private sector.

The underlying social contract that prevailed in the post independence period in the Arab countries is referred to in the literature as the authoritarian bargain model (ABM). In this model, autocratic leaders provided their citizens with some economic benefits (welfare and public employment programs) in return for consent to relinquish political rights (as elaborated for example by Desai et al. 2009). This deal, and the measures associated with it, was defended by the leaders of nationalist movements as necessary to pursue the larger cause of rapid industrialization, social justice and greater equality.

In reality, Andersen (1987) argues that populist measures aimed at inhibiting the development of an independent bourgeoisie which might have threatened political stability. Along the same lines, King (2009) argues that the primary objective of this contract was to build new constituencies in support to the regime instead of the bourgeoisie that consisted of rich land-owners created during the Ottoman Empire who were seen as the main ally of colonial powers. Thus, Arab socialism favored workers, peasants and generally the lower middle classes including the administrative elite or bureaucrats in the public sector. These preferences were often expressed explicitly in constitutions, laws and public policies. The oil booms of the 1970s, which encouraged significant intra-regional migration from labor-abundant economies to oil-rich countries, may have served as a means to relieve employment pressures on governments.

In return for these generous benefits, governments expected unconditional political support from the masses (Yousef 2004 and King 2009). These governments also imposed control over organized labor and other political and intellectual movements. In Egypt, strikes were forbidden. When needed, the state became sharply coercive and repressive.

The ABM came under strain in the 80s and 90s, in part because of the decline in oil prices (and associated lower remittances to oil poor countries) and the structural reforms carried out in Egypt, Jordan, Morocco and Tunisia under the umbrella of the IMF and World Bank (Harrigan and El-Said 2010). These programs called for a smaller welfare state, lower public
expenditure, and privatization which was associated with lay-offs of redundant workers. The ABM survived but not without consequences. As governments were reluctant to curtail many of the interventionist–redistributive social policies inherited from the 1960s, they were compelled to proceed with some political liberalization. In countries like Egypt, Jordan, Morocco, and to a lesser extent Tunisia, the autocrats allowed greater political space to opposition political parties, expanded civil liberties and increased the participation of civil society (Yousef 2004 and King 2007). These experiments fell short of democratization, and merely provided a façade of multi-party politics.

Meanwhile, economic reforms, particularly privatization, generated new rents and contributed to the formation of a new distributional coalition, composed of a rent-seeking bourgeoisie and landed elites (King 2007 and 2009). This new coalition replaced the alliance with workers, peasants and the middle class, who were the core constituencies of political support during the 1960s. This new group contributed to the transformation of populist authoritarian regimes into “elitist crony capitalist forms of authoritarian rule.”

The role of the West in this process was very similar to their role in oil-rich countries. In the 1960s, the West supported autocratic leaders in oil-poor countries to limit the influence of communism. Later, they turned a blind eye on autocratic regimes to maintain regional stability, contain a perceived threat of Islamists and to protect leaders with a moderate position in the Arab-Israeli conflict.

4.3 The roots of institutional imperfections

Notwithstanding major shifts in the political life of many countries in the region in the last century or so, the roots of extractive institutions can be traced to earlier periods. During the Ottoman occupation, some two hundred years ago, the Sultan himself was “accountable to few and sharing power with none” according to Acemoglu and Robinson (2012). He created a system in occupied territories where the land was the property of the state, commerce was under its control and the economy was strictly regulated by monopolies. The Ottomans resisted serious institutional reforms in their provinces as their interests were narrowly confined to control and taxation. They opportunistically relied on a small group of allies who had enough power and authority, like the Mamluks in Egypt or local governors in Syria, to collect land taxes in return for a regular salary or for a portion of land for their own use. In turn, these agents allied themselves with small local but loyal networks through a combination of “threats, patronage and largesse”. In time, both the agents and their allies accumulated significant personal wealth for themselves and retained large parts of revenues to maintain force to deter potential rivals (Owen 1981).

However, during the nineteenth century, threatened by the growing European economic and military power, they undertook “defensive modernization” reforms (mainly administrative reforms) in countries like Morocco and Tunisia (Andersen 1987). Egypt, which enjoyed relatively more independent, ambitious and more powerful rulers (like Mohamed Ali and his sons) was able to embark on modernization programs (infrastructure, education and to an extent judiciary systems) (El-Beblawi 2008).

Later on, European colonialists coexisted with these extractive institutions. In countries that had more autonomous leaders than others (like Egypt and Tunisia), they maintained and even accelerated earlier trends of strengthened state administration in the late nineteenth century (Andersen 1987). Yousef (2004) points out that, they even tolerated some political and civic representation, allowing a vibrant civil society to emerge including political parties, trade unions and professional associations. However, power continued to be concentrated in a few hands, mainly feudalists and emerging industrialists who were the main allies of the colonial powers (Owen 1981; Yousef 2004; Andersen 1987). These institutional changes along with the rise of anti-colonial movements paved the way for a new social contract. Yet, in other
parts of the region, European rule did not allow stable and orderly administrative institutions which discontinued state formation. In both cases, however, European colonialists were able to count on the loyalty of some influential families or other social groups who remained dependent on state patronage for their wealth and power (Andersen 1987).

In short, oil-poor Arab countries did follow different development strategies since their independence. While some progress was made, their political (and economic) institutions were not conducive to achieving sustainable development for most of their population. The form of extractive institutions changed over time, but the outcome remained essentially the same. The Arab Spring movements appear to be a potential discontinuity to this trend.

5. The Arab Spring

If there is one thing that the recent uprisings have made clear, it is that governments in the Arab spring countries failed to provide a satisfactory life for the majority of their citizens. The social contract, which had survived economic hardships and waves of democratization the world over, finally broke. Surprisingly, it first broke in Tunisia and Egypt, the two countries in the region which were hailed right before the uprisings for achieving high levels of economic growth. The youth that took the lead in these uprisings were educated, middle class and well versed with social media. In both countries, they demanded freedom, dignity and social justice. These are precisely the values that previous governments failed to achieve. Intuitively, the revolutionaries came to the conclusion that it is bad politics that produced undesirable outcomes, not bad economics per se.

In attempting to explain what happened in a rational framework, Diwan (2012) expands the ABM to include three players: the rich (the autocratic coalition who benefited from the 1990s liberalization policies), the middle class and the poor. In a game theoretic setting, he shows that the middle class, which was traditionally allied with the autocrats and supported the ruling regime, chose to tip its support away from the autocrats and towards democratic transition. The rationale for their behavior is that they were no longer the main beneficiaries of the social contract. They were also increasingly facing increased repression and abuse of human rights. At the same time, they saw that crony capitalism was flourishing and driving up inequality.

Two important questions are now on the minds of many in the region: Will these revolutions spread beyond the current set of countries, and will these changes constitute a step toward building inclusive institutions in Arab spring countries? On contagion, it is remarkable how fast the fire caught across countries in the region. Within a year, the revolutions moved from Tunisia and Egypt to Yemen, Libya and Syria. The prospects for these uprisings to spread to oil-rich countries at a significant scale in the short run may not be high, in part because of oil rents and in part because many of the rulers derive their legitimacy from religious or tribal associations. Nevertheless, it is interesting to note that the Kings, both of Morocco and Jordan, are trying to be ahead of the curve by adopting some institutional reforms to bring about more checks and balances in their relationships with their citizens.

Will these uprisings constitute “critical junctures” toward more inclusive institutions? This is a difficult question to answer. For a clue, Acemoglu and Robinson (2012) seems to be advancing two pre-conditions for that to happen: (1) the existence of a centralized state, and (2) signs that the institutional changes are allowing political competition, participation and restraints on the ruling elite. Clearly it is not easy for a country like Somalia to have inclusive political institutions under the current fragmentation of power and low order. And it is equally difficult to see how North Korea could make its institutions more inclusive in the short run, given the tight grip of the communist party on political life. For countries in between, alternative scenarios are possible, fully recognizing that the process is likely to be non-linear and may last for many years to bear fruits.
Applying the above framework to the Arab spring countries, Tunisia and Egypt seem to have the potential of turning their uprisings into a move toward inclusive institutions. Both countries have well established centralized states, with well recognized boundaries, homogenous populations and no history of significant internal conflicts. And in a relatively short period of time, slightly over one year, they took steps toward drafting a modern constitution with checks and balances, and have been able to hold free parliamentary elections. In Egypt, multiple presidential candidates are now competing for the job, for the first time ever. The candidates are competing on platforms that are discussed widely. Emerging political powers are accepting court rules as a mechanism for resolving conflicts.

The above outcome is uncertain however. Institutions persist over time and are path dependent (North 1991). Pre-revolutions elites enjoy some power and are likely to exercise this power to foster institutions that would sustain their interests. The rise of the Islamists adds a new twist, which is yet to play itself out. Whatever the outcome may be, the strong showing of a large segment of the population demanding freedom, justice and dignity only means that future institutions can only be more inclusive rather than less.
References


International Monetary Fund. Various years for several countries. *Article IV Consultation - Staff Report; Public Information Notice*. Washington DC. http://www.imf.org/external/country/index.htm


Figure 1: Convergence of GDP Per Capita in Developing Regions Relative to OECD, 1974-2010 (Constant US$2000)

Source: Authors’ calculations based on World Development Indicators (WDI) data.

Figure 2: Per Capita Growth and Volatility in the Arab World, 1961-2010 (Percent)

Source: Authors’ calculations based on WDI data.

Figure 3: Convergence of Per Capita Income in Oil and Non-Oil Rich Arab Countries Relative to OECD, 1971-2010 (Percent, Constant US$2000)

Source: Authors’ calculations based on WDI data.
Figure 4: Proportion of People Living on Less Than US$1.25 and US$2 A Day in the Arab Countries Compared to Other Developing Regions, 2000-2009, (Percent)

Source: Abu Ismail et al. (2011a).

Figure 5: Ratios of Employment to the Populations, 1991-2009 (Average)

Source: World Bank Development Indicators
Figure 6A: Unemployment by Region and Gender, 1990-2011 (Average)

Figure 6B: Youth Unemployment by Region and Gender, 1990-2011 (Average)

Source: Abu Ismail et al. (2011b)

Figure 7: Oil rent and GDP Per Capita in Oil-Rich Arab Countries, 1974-2009

Source: World Bank Development Indicators
Figure 8: Composition of Merchandise Exports, Average 2003-2010

Source: World Bank Development Indicators

Figure 9: Employment of Nationals in Selected Oil-Rich Countries by Employer

Source: Hodson (2011)

Figure 10: Governance Indicators in Oil-Rich Arab Countries, in 2000 and 2010

Note: Values vary from -2.5 (bad governance) to 2.5 (good governance).

Figure 11: Governance Indicators in Oil-Poor Arab Countries, in 2000 and 2010

Note: Values vary from -2.5 (bad governance) to 2.5 (good governance).
### Table 1: Inequality across Regions, 1970s-1990s

<table>
<thead>
<tr>
<th>Regions</th>
<th>Average Gini Coefficients</th>
<th>Ratio of richest/poorest quintile</th>
<th>GDP per capita (PPP, $ 1999)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>East Asia</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970s</td>
<td>39.3</td>
<td>7.75</td>
<td>-</td>
</tr>
<tr>
<td>1980s</td>
<td>39.2</td>
<td>7.26</td>
<td>2,328</td>
</tr>
<tr>
<td>1990s</td>
<td>38.9</td>
<td>6.48</td>
<td>3,439</td>
</tr>
<tr>
<td><strong>Europe &amp; Central Asia</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970s</td>
<td>33.6</td>
<td>3.54</td>
<td>6,209</td>
</tr>
<tr>
<td>1980s</td>
<td>30.3</td>
<td>3.53</td>
<td>2,328</td>
</tr>
<tr>
<td>1990s</td>
<td>34.5</td>
<td>4.28</td>
<td>5,300</td>
</tr>
<tr>
<td><strong>Latin America &amp; Caribbean</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970s</td>
<td>49.7</td>
<td>14.68</td>
<td>-</td>
</tr>
<tr>
<td>1980s</td>
<td>49.7</td>
<td>14.95</td>
<td>3,209</td>
</tr>
<tr>
<td>1990s</td>
<td>48.9</td>
<td>11.71</td>
<td>4,335</td>
</tr>
<tr>
<td><strong>Arab Countries</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970s</td>
<td>40.5</td>
<td>7.9</td>
<td>3,680</td>
</tr>
<tr>
<td>1980s</td>
<td>37.6</td>
<td>6.71</td>
<td>3,241</td>
</tr>
<tr>
<td>1990s</td>
<td>38.5</td>
<td>-</td>
<td>3,695</td>
</tr>
<tr>
<td><strong>South Asia</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970s</td>
<td>34.1</td>
<td>5.38</td>
<td>-</td>
</tr>
<tr>
<td>1980s</td>
<td>33.7</td>
<td>5.38</td>
<td>966</td>
</tr>
<tr>
<td>1990s</td>
<td>32.7</td>
<td>4.56</td>
<td>1,578</td>
</tr>
<tr>
<td><strong>Sub-Saharan Africa</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970s</td>
<td>46.1</td>
<td>10.95</td>
<td>975</td>
</tr>
<tr>
<td>1980s</td>
<td>41.1</td>
<td>8.57</td>
<td>1,083</td>
</tr>
<tr>
<td>1990s</td>
<td>45.9</td>
<td>10.17</td>
<td>3,695</td>
</tr>
</tbody>
</table>

Source: Bibi and Nabli (2010).

### Table 2: Human and Social Development Indicators, 2009

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Arab countries</th>
<th>East Asia</th>
<th>Europe and Central Asia</th>
<th>Latin America</th>
<th>Sub-Saharan Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>School enrollment, primary (% gross)</td>
<td>97.7</td>
<td>110.5</td>
<td>101.6</td>
<td>116.7</td>
<td>99.9</td>
</tr>
<tr>
<td>School enrollment, secondary (% gross)</td>
<td>73.6</td>
<td>77.8</td>
<td>96.6</td>
<td>89.6</td>
<td>36.0</td>
</tr>
<tr>
<td>Life expectancy at birth, total (years)</td>
<td>69.9</td>
<td>73.0</td>
<td>75.5</td>
<td>73.9</td>
<td>53.8</td>
</tr>
<tr>
<td>Fertility rate, total (births per woman)</td>
<td>3.3</td>
<td>1.8</td>
<td>1.7</td>
<td>2.3</td>
<td>5.0</td>
</tr>
<tr>
<td>Mortality rate, infant (per 1,000 live births)</td>
<td>37.2</td>
<td>18.8</td>
<td>11.8</td>
<td>18.1</td>
<td>76.4</td>
</tr>
</tbody>
</table>

Source: World Bank Development Indicators.

### Table 3: Human and Social Development Indicators, 1960-2009

<table>
<thead>
<tr>
<th>Indicators</th>
<th>1960</th>
<th>1980</th>
<th>2000</th>
<th>2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>School enrollment, primary (% gross)</td>
<td>64.3</td>
<td>77.3</td>
<td>88.3</td>
<td>97.7</td>
</tr>
<tr>
<td>School enrollment, secondary (% gross)</td>
<td>20.5</td>
<td>36.5</td>
<td>54.3</td>
<td>73.6</td>
</tr>
<tr>
<td>Life expectancy at birth, total (years)</td>
<td>45.9</td>
<td>56.8</td>
<td>67.4</td>
<td>69.9</td>
</tr>
<tr>
<td>Fertility rate, total (births per woman)</td>
<td>6.9</td>
<td>6.3</td>
<td>3.8</td>
<td>3.3</td>
</tr>
<tr>
<td>Mortality rate, infant (per 1,000 live births)</td>
<td>141.3</td>
<td>88.0</td>
<td>46.5</td>
<td>37.2</td>
</tr>
</tbody>
</table>

Notes: 1. Data begins in 1971; 2. Data starts in 1965 and ends in 2010
Source: World Bank Development Indicators

### Table 4: Deviations from Equilibrium Real Exchange Rate, 1975-2005, (Percent)

<table>
<thead>
<tr>
<th>Countries</th>
<th>Mean deviation of the RER</th>
<th>Periods with overvaluation (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahrain (8)</td>
<td>4.7</td>
<td>50</td>
</tr>
<tr>
<td>Kuwait (5)</td>
<td>0.6</td>
<td>80</td>
</tr>
<tr>
<td>Oman (8)</td>
<td>-18.1</td>
<td>63</td>
</tr>
<tr>
<td>Qatar (5)</td>
<td>10.4</td>
<td>20</td>
</tr>
<tr>
<td>Saudi Arabia (5)</td>
<td>-9.0</td>
<td>80</td>
</tr>
<tr>
<td>United Arab Emirates (5)</td>
<td>6.4</td>
<td>20</td>
</tr>
<tr>
<td>Algeria (8)</td>
<td>-9.0</td>
<td>75</td>
</tr>
<tr>
<td>Iraq (8)</td>
<td>2.7</td>
<td>63</td>
</tr>
<tr>
<td>Libya (5)</td>
<td>-1.9</td>
<td>60</td>
</tr>
<tr>
<td>Yemen (5)</td>
<td>6.1</td>
<td>40</td>
</tr>
</tbody>
</table>

Note: A negative value in column 1 means an overvalued RER on average during the whole period (up to 8 five year periods 1970-2005).
Table 5: Government Revenues and Expenditures in Selected Arab Countries, Averages 2003-2010, Percent

<table>
<thead>
<tr>
<th></th>
<th>Algeria</th>
<th>Kuwait</th>
<th>Oman</th>
<th>Qatar</th>
<th>Saudi Arabia</th>
<th>UAE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydrocarbon revenue</td>
<td>72.5</td>
<td>76.3</td>
<td>77.4</td>
<td>62.0</td>
<td>86.8</td>
<td>76.2</td>
</tr>
<tr>
<td>(% of total revenue)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-hydrocarbon revenue</td>
<td>27.5</td>
<td>23.7</td>
<td>22.6</td>
<td>38.0</td>
<td>13.2</td>
<td>23.8</td>
</tr>
<tr>
<td>(% of total revenue)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax revenue</td>
<td>24.2</td>
<td>1.7</td>
<td>6.9</td>
<td>5.4</td>
<td>Na</td>
<td>2.6</td>
</tr>
<tr>
<td>(% of total expenditure)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current expenditure</td>
<td>59.0</td>
<td>87.6</td>
<td>66.5</td>
<td>71.5</td>
<td>78.3</td>
<td>75.3</td>
</tr>
<tr>
<td>(% of total expenditure)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wages and salaries</td>
<td>22.5</td>
<td>29.2</td>
<td>21.6</td>
<td>18.9</td>
<td>30.2</td>
<td>13.2</td>
</tr>
<tr>
<td>(% of total expenditure)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subsidies and social benefits</td>
<td>26.8</td>
<td>35.4</td>
<td>9.0</td>
<td>13.9</td>
<td>4.2</td>
<td>16.7</td>
</tr>
<tr>
<td>(% of total expenditure)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Defense and security</td>
<td>9.5</td>
<td>21.4</td>
<td>29.5</td>
<td>9.8</td>
<td>27.3</td>
<td>22.5</td>
</tr>
<tr>
<td>(% of total expenditure)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: Due to some unavailability for some variables, data are included until 2009 only.
Source: Authors’ calculations based on several data sources. Algeria Kuwait, Qatar and UAE: IMF statistical appendices of article IV country reports; Oman, Ministry of National Economy’s statistical year book and Central Bank of Oman’s annual report; Saudi Arabia: Saudi Arabian Monetary Agency’s annual report; defense and security data for Algeria and UAE are from WDI.