



# The Arab Uprisings and the International Oil Markets

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## Summary points

- Although there have been no serious threats to global supplies since the Arab uprisings started, oil prices will remain volatile as political developments combine with global economic gloom, and surviving regimes spend to pacify populations.
- Physical oil markets managed the loss of Libyan crude exports well. However, in the paper markets, concerns over major Gulf Cooperation Council countries caused prices to strengthen.
- Under two long-term scenarios – ‘Business as Usual’ and ‘Democracy Develops’ – governments will seek higher production to provide more revenue. This could open the upstream to foreign investment, although democracy could create a nationalist backlash. There are also questions over whether democracies choose faster rates of depletion.
- With democracy, there will be a greater role for the private sector, with important implications for the reform of the upstream and the role of national oil companies.
- A growing Sunni–Shi’a split within OPEC may threaten the management of the oil market in the event of downward pressure on prices if the global economy reverts to recession.
- Ultimately the Arab uprisings could lead to an increase in oil supplies if depletion policies change and there is a greater role for the international oil companies.

## Introduction

The wave of uprisings that began in Tunisia in January 2011 and then spread to all parts of the Arab world was a defining period for the region and the world.

The sweeping pro-democracy rebellions in the region highlighted the kleptocratic nature of many Arab regimes whose behaviour effectively undermined economic progress in countries where private-sector activity struggled to survive. Unemployment and inflation were both sky-rocketing along with international food prices, while standards of living declined. With over 38% of the Arab populations of 280 million in 2000 below the age of 15, the aspirations of an increasing number of young people were being thwarted (UNDP, 2002).

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As unrest in the Arab world continues, this paper focuses on the potential implications for the international oil market and specifically for the future price of oil.<sup>1</sup> The region’s oil depletion policies, the behaviour of oil markets more generally and relations between members of the Organization of the Petroleum Exporting Countries (OPEC) are all crucial to the prospects for oil prices.

## The wet barrel and paper barrel markets for oil

The Arab uprisings had different effects on the two different markets for crude oil. The wet barrel market is where producers sell and refiners buy physical oil, and the paper barrel market is where promises written on paper are made

to exchange oil in the future (Stevens, 2009). The paper market began with the unregulated forward markets in the 1980s, but now most attention is given to formalized regulated futures markets such as NYMEX, trading West Texas Intermediate (WTI) in New York, and the Intercontinental Exchange (ICE), trading a Brent blend in London.

The players in the paper market are conventionally divided into commercial and non-commercial players. The commercials are traders who operate in the wet barrel market and are interested ultimately in real wet barrels. The non-commercials are often referred to as ‘speculators’. However, these distinctions are unhelpful and misleading. For example, many of the major oil companies that would be classified as commercial operators also behave as non-commercials would behave. The term ‘speculators’ is also unhelpful. Speculators move in and out of the market on a short-term basis and thrive on price volatility. They push the price up and down. However, much of the money going into paper barrel markets recently has been investments by the ‘money managers’. These are individuals who are responsible for managing large portfolios of financial assets, often associated with pension funds. Their function is to optimize their portfolios, managing low-risk (e.g. treasury bonds) and high-risk (e.g. commodities) investments. They may invest in commodities, including oil, in part because there are limited alternative investments when government bonds are unattractive and equity markets are in free fall. In such circumstances, oil and other commodities have become an asset class in their own right.

The links between wet and paper barrel markets are complex. However, it is possible to characterize the linkage in the following way. The paper market provides the signals that create the context in which prices in the wet barrel market are negotiated. It does not set the price *per se* but indicates a starting point for discussion of the numbers in the contract. Perceptions in the paper market about surpluses or shortages in the wet barrel market inform behaviour that determines the paper barrel price: perceptions of shortage, current or impending, will push the price up, and vice versa, as the money managers move cash into and out of the paper markets in anticipation of price changes.

<sup>1</sup> The Arab uprisings also carry important potential implications for gas markets. However, gas issues deserve a separate paper.

Since 2002 the paper market has misread the signals in the wet barrel market on a number of occasions, leading to a disconnection between the two. The money managers, believing there to be a shortage in the wet barrel market, pour money into paper barrels, pushing up the price. When they realize there are no shortages, they pull out and the price collapses. Each time the disconnection between markets has been realized there has been a sharp price adjustment. On each occasion between 2000 and 2005, the price fell rapidly by around \$10 per barrel from a peak of around \$30–40. At the end of 2006 prices quickly fell by \$20 from a peak of \$70. The most spectacular example to date was in 2008 when the price reached a peak of \$147 in early July, based on the paper barrel markets' belief that there was an imminent shortage. When it was clear this was not the case, the market fell by \$40 per barrel within a couple of weeks.<sup>2</sup>

This disconnect between wet and paper barrel markets is partly the result of the money managers' lack of any real understanding of the oil industry. For example, an

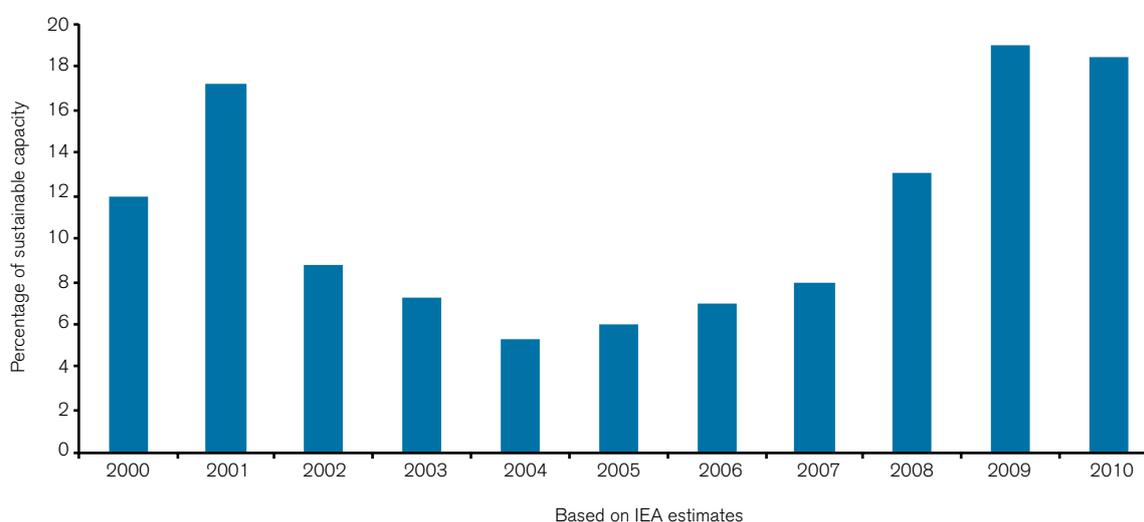
argument heard by this author, when asking the money managers in the City of London in 2002 why they were pushing up oil prices, was that 'there is a shortage'. When asked why they thought there was a shortage they replied 'because the price is rising!'<sup>3</sup>

### The state of the oil market before the Arab uprisings

After the global recession reduced oil demand growth in 2008 and 2009, 2010 appears to have been an extremely strong year for such growth, dominated by the increased demand from the Middle East and Asia. Since 2004, however, non-OPEC production growth has been either negative or very low.

This pattern of demand growth and non-OPEC production is translated into the level of spare capacity to produce crude oil, which is shown in Figure 1. This is an estimate of capacity that can be brought into production within a matter of days. As can be seen, in 2010 spare capacity was at relatively high levels.

Figure 1: Estimates of spare capacity to produce oil in OPEC-11

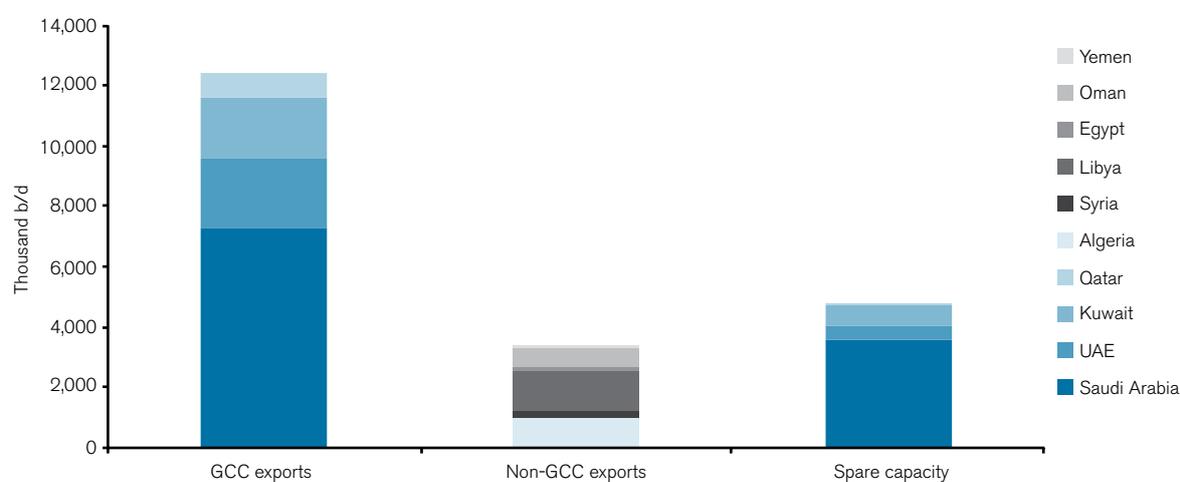


Source: Author's estimates based upon IEA data.

<sup>2</sup> In September 2008, prices fell even further in the wake of the collapse of Lehman Brothers as the paper barrel markets feared the impact of a global economic recession on oil demand.

<sup>3</sup> There is a similar phenomenon in foreign exchange markets called the 'scapegoat theory'. The idea is that if conventional economic analysis is applied to the level of exchange rates, then it has no explanatory power. Thus exchange rates appear to be disconnected from conventional macro-economic variables such as inflation or employment. The explanation is that the traders in foreign exchange who determine the level are looking at other indicators to act as a proxy for what they really wish to see – the so-called scapegoat (Bacchetta and Van Wincoop, 2004).

Figure 2: Arab countries' oil exports and spare capacity, 2009



Sources: BP, 2011 and OAEPC.

The pattern of oil exports in 2009 from the Arab countries excluding Iraq can be seen in Figure 2.<sup>4</sup> The main Gulf Cooperation Council (GCC) exporters – Saudi Arabia, the United Arab Emirates (UAE) and Kuwait – had sufficient excess capacity to cover the loss of exports from all the other Arab exporters.<sup>5</sup>

So far the wet barrel market before the Arab uprisings appears to have been comfortably supplied. By the end of 2010, according to IEA data from the Oil Market Report, crude and product inventories were at record highs compared with the preceding five years. Indeed for the previous couple of years, OPEC had been working hard to restrain production in an attempt to ‘mop up’ this very high level of stocks. While the forward curve remained in contango,<sup>6</sup> high stocks were not a problem and reflected a desire by the wet barrel market to hold physical supplies. The fear was that if the forward curve flipped into backwardation,<sup>7</sup> then this stock overhang would be seen as surplus to requirements. As a result stock holders might try to liquidate their barrels, prompting a price collapse of the sort seen in 1998.

Despite the apparently comfortable supply picture in the wet barrel markets, the paper barrel markets were nervous. In 2010 they began to take a view of the market that suggested higher rather than lower prices, as can be seen from Figure 3. Several factors explain this. There were concerns about international tensions over the Iranian nuclear programme, and speculation over an imminent Israeli attack on the Iranian facilities and the potential for retaliation from Iran that would upset the global oil market.<sup>8</sup> There was also continuing concern over the political situation in Nigeria following the death of President Umaru Yar’Adua, and the possibility of civil war.

A further concern was the weakening of the US dollar, which the paper markets have come to see as a harbinger of higher oil prices. The transmission mechanism for this relationship is very questionable, however. Oil is priced in dollars and the assumption is that a weaker dollar makes oil cheaper for non-dollar buyers, which increases demand and therefore prices. However, given that the main non-dollar-based currency is the euro and that in

<sup>4</sup> Iraq is excluded simply because its situation is very different from that of the other Arab countries.

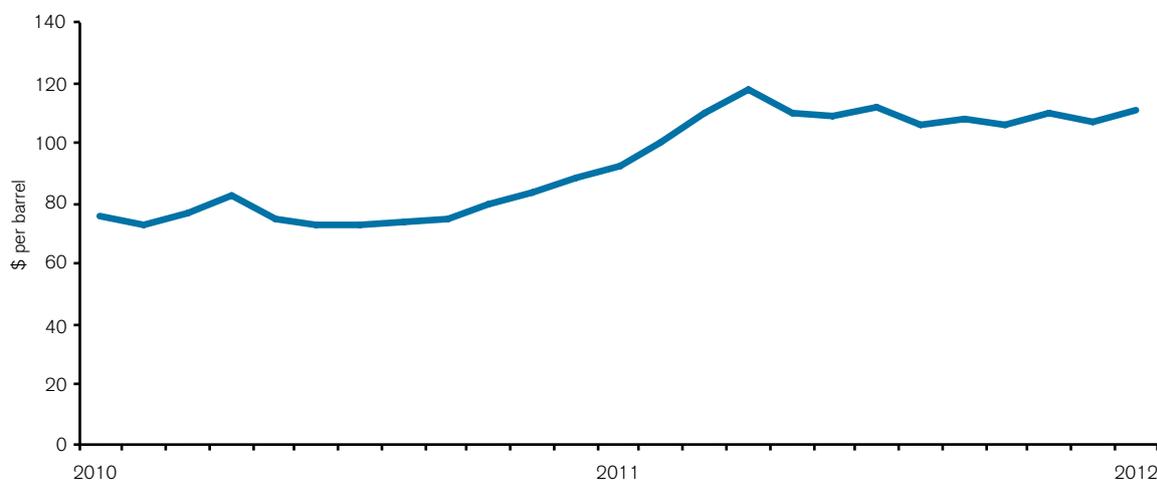
<sup>5</sup> As will be clarified below, this statement is a bit simplistic since it takes no account of the differing qualities of crude or their geographic location.

<sup>6</sup> Contango is where the forward price is above the current price (the prompt price), providing an incentive to hold physical stocks.

<sup>7</sup> Backwardation is where the forward price is lower than the prompt price, acting as an incentive not to hold physical inventory.

<sup>8</sup> These ranged from destabilizing Iraq to attempts to interfere with the flow of oil through the Strait of Hormuz.

Figure 3: Monthly oil price, OPEC basket



Source: OPEC.

the eurozone almost 80% of the final prices of gasoline and diesel consists of sales taxes imposed by the consuming governments, changes in the dollar exchange rate are unlikely to have any immediate effect.

For all these reasons, as can be seen from Figure 3, the oil price began to show consistent strength as 2010 progressed. This was the situation at the start of 2011 when the Arab uprisings began.

### The immediate impact

The first and most obvious impact in January 2011 as the unrest spread from Tunisia to other countries was upon perceptions in the paper barrel markets. Initially the loss of exports from Egypt and Yemen was seen as a cause for concern even though both countries exported very little crude (in 2009, Egypt exported 166,000 b/d and Yemen 127,000 b/d). The impact of their loss on the wet barrel markets would be barely noticed. There was also concern that the unrest in Egypt could lead to the closure of the Suez Canal, although it was abundantly clear that the Egyptian military would allow

no such interference. Transit through the Suez Canal accounts for 3.5–4.5 million b/d in both directions and a closure would therefore have had a greater impact on the wet barrel markets than the loss from both Egypt and Yemen.<sup>9</sup> In the event there was no disruption to the operations of the canal.

However, many players in the paper barrel markets took the view that all countries in the ‘Arab world’ were identical. Therefore unrest in Tunisia, Yemen and Egypt would be followed by unrest in Libya and Syria, and eventually in Saudi Arabia and Kuwait. The focus was on the fact that the Middle East and North Africa accounted for some 40% of world oil exports. The belief in the potential for regional contagion therefore gave a strong boost to prices, as can be seen from Figure 3. The key was what would happen in the major GCC countries. As can be seen from Figure 2, at least in aggregate terms, the world oil market could lose all of the non-GCC exports and the wet barrel markets would face few problems, provided the GCC producers were willing to fill the gap with their spare capacity.

<sup>9</sup> Interestingly, the Suez Canal is more important for the transit of liquefied natural gas (LNG) supplying Europe. Some 3.5–4 billion cubic feet per day transit the canal in both directions and amounts have been rising. In 2008, 429 LNG tankers transited the canal while in 2010 the estimated number was 763 tankers. According to the US Energy Information Administration, in 2009 the UK and Italy received more than half of their LNG supplies via this route.

It was only when unrest began in Libya that the wet barrel markets started to be significantly affected. Libya had been exporting 1.4 million b/d of light sweet crude, mostly supplying refineries in southern Europe. At first the extent of the loss of Libyan crude was hard to ascertain because the situation on the ground became very confused, but as the fighting intensified it obviously became more difficult to export oil, let alone determine whose oil it was and who was responsible for trading it.<sup>10</sup> While Saudi Arabia promised to offset the loss of Libyan crude, its own crude was heavier, sourer and also located in the Gulf. The result was a significant increase in the price differentials between the two types. In January 2011 the differential between light (Tapis 44 degrees API) and heavy crude (Arab Heavy 27 degrees API) was \$9.89. By May this had reached \$17.79.<sup>11</sup>

The key to calming the market lay with Saudi Arabia. Throughout the Arab uprisings, it had been making public statements guaranteeing there would be no crude oil shortages as a result. However, more informed analysts had concerns. The normally cordial relations between Riyadh and Washington had become tenuous following the removal of Egypt's Hosni Mubarak from office. The view in Riyadh was that Mubarak had been a key 'friend' of Washington for over 30 years. If the United States did so little to help its 'friends', what could the Al Saud ruling family expect under similar circumstances? All the signs were that the Al Saud might now be less likely to accommodate Washington's desire to reduce oil prices. This view was reinforced by King Abdullah's promises of various financial hand-outs to his people to assuage fears that unrest implied higher prices (see below). However, the arithmetic was complicated and attitudes were ambivalent. On the one hand the Saudi rulers wanted higher prices to finance

their increased expenditure and possibly to put pressure on the United States. On the other hand they had long feared that higher prices would lead to demand destruction and therefore undermine the value of their oil reserves. Furthermore higher prices would benefit Iran and Iraq, which was not in Saudi interests, and would also upset other oil-importing allies such as China.<sup>12</sup>

The crunch came at the OPEC meeting on 8 June and was yet another side effect of the Arab uprisings. The unrest had spilled over to reignite the long-standing grievances of the majority Shi'a population in Bahrain. The idea of a populist Shi'a government in Bahrain was unthinkable to the Al Saud. They therefore offered to provide military forces to suppress the uprising. Bahrain's rulers accepted the offer and it was later alleged that the Saudi security forces were involved in the violent suppression of the Bahraini protests. Whatever the truth of this, the Iranian government saw this as a direct attack on its interests. Iran, in its role as the defender of Shi'a causes internationally, had been increasingly concerned about Bahrain's demolition of 'unlicensed' Shi'a mosques and was aggrieved to see Saudi Arabia 'occupying' an island previously part of the Persian empire. As a result Saudi-Iranian relations plummeted to a deep low. This spilled over into the June OPEC meeting. Saudi Arabia had gone into the meeting publicly requesting a formal increase in OPEC output to counter the rising prices. The Iranians managed to create a coalition including Venezuela, the 'official' Libyan delegation, Algeria and several other members to block any attempt to formally increase OPEC output. The result was an extremely acrimonious meeting, which could not even agree on a final press release – previously an unheard-of event at any OPEC meeting.

Saudi Arabia announced that it would in any case increase its output on an informal basis. Meanwhile

10 In April, Qatar confirmed it was marketing crude oil on behalf of what was then the Libyan opposition; see <http://www.trust.org/alertnet/news/qatar-trading-houses-doing-oil-deals-with-Libya>. The situation was further confused by the fact that the main international oil companies operating in Libya pulled out to protect their staff.

11 It was this increase in the differential that began to cause concern in Washington in advance of the US summer 'driving season'. The resulting higher gasoline prices would not go down well with the voting public. The Obama administration therefore persuaded the IEA to announce a release of stocks amounting to 60 million barrels on 23 June in an effort to cap the price of light sweet crude and narrow the differential.

12 This is a good illustration of how complex oil policy interests can be.

the global economic picture began to look increasingly gloomy with a major crisis developing in the euro-zone. With the looming prospect of a double-dip global recession, the paper markets began to exert downward pressure on oil prices (see Figure 3). As the Libyan conflict appeared to be reaching a conclusion, the prospects of the country's crude returning to markets also exerted a downward pressure

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Other short-term consequences of the Arab uprisings are also worth considering. One obvious immediate result is that efforts to develop upstream capacity have been put on hold in several countries, if only as a result of military action and more general unrest. The clearest case is Libya, where all operations by the international oil companies (IOCs) were halted at the outbreak of fighting, but Yemen and Syria also struggled to maintain producing capacity. How quickly operations resume in the region will depend on how quickly order can be restored, how quickly new governments can put in place new depletion policies, new petroleum legislation and a new (possibly) reformed structure for the existing oil sectors (see below for the longer-term impacts).

Another immediate consequence affects government targets for oil prices. The newly emerging regimes and the surviving regimes in the region will need to increase their spending in order to win in promised elections, to promote stability more broadly or, in the case of surviving regimes, to meet the aspirations of their populations. This has been most striking in Saudi Arabia. In February 2011 King Abdullah announced a \$37 billion handout to be spent within one year, including a 16% pay increase for all public-sector employees. In March, he announced a further \$97 billion handout to be spent over three years. This sort of largesse will require much higher revenues. In 2008, the official Saudi position was that \$70–80 per barrel was a ‘reasonable’ price target. However, the \$37 billion handout alone was equivalent to an additional \$14 per barrel on Saudi Arabia's 2009 exports. Meanwhile, the GCC promised large aid packages to help its less rich members. It promised \$10 billion each for Bahrain and Oman to be spread over 10 years, although how much of this has been distributed is uncertain.<sup>13</sup> Suddenly the supply price had increased dramatically.<sup>14</sup> Other GCC countries have also announced extensive packages to improve the economic well-being of their nationals (Shehadeh, 2011).

### The impact in the medium to longer term

The medium- to longer-term impact of the Arab uprisings on the oil markets depends upon how the political situation in the region unfolds. This raises two questions. First, how will the situation develop in countries where the existing incumbent regimes have already been deposed (Egypt, Tunisia and Libya) or almost deposed (Yemen and possibly Syria)? Second, how will those countries where the regime remains in place change in the light of recent and potential events? Key here are the major oil exporters of the GCC although, despite some reports of demonstrations, it seems unlikely that they will see the sort of popular unrest that has characterized the Arab uprisings.

<sup>13</sup> Saudi Arabia also gave Jordan \$1.4 billion in budgetary support in 2011 and discussed a possible five-year support package.

<sup>14</sup> This applies more generally to other major oil producers, with hints of a possible contagion effect in non-Arab countries.

There are two possible outcomes – ‘Business as Usual’ and ‘Democracy Develops’.<sup>15</sup> These can be applied to specific countries but also to the region more generally.

### Scenario 1: Business as Usual

In Egypt and Tunisia the deposed leaders had the support of the military and the security forces, which retain underlying political control and may simply look to find a suitable replacement to preserve the dominance of the old ruling elites.<sup>16</sup> It might also be argued that in key producing countries the surviving regimes will be highly sensitized and take steps to head off unrest and contain protest.<sup>17</sup> These regimes, as noted, would require ever higher oil revenues to protect their position. State domination of the economy would be maintained for fear that an independent private sector could act as a base for dissent.

Another consequence affects domestic pricing of oil products. The MENA region has been experiencing very high levels of demand growth. The World Bank estimates that since 1980, energy consumption there has risen faster than in any other region in the world. Between 1990 and 2005 MENA’s energy intensity<sup>18</sup> increased by 14–60% above the OECD average and 40% above the global average. There has been concern that, if unchecked, this implied growth in energy consumption could eat into the availability of oil for exports, threatening global supplies (Lahn and Stevens, 2011). One solution that has been discussed widely in some countries of the region is to increase the very low prices that had encouraged the wasteful use of oil in the first place.<sup>19</sup> However, in countries trying to control unrest, this would be even more difficult since raising domestic energy prices is never popular at the best of times.

### Scenario 2: Democracy Develops

In this scenario surviving rulers in the MENA region gradually adopt greater accountability and transparency in their relationships with the ruled. This implies a fundamental change in the culture of these societies, of far greater significance than simply voting every four or five years. This outcome need not require a violent removal of the ruling elites. They are perfectly capable of trying to address growing popular grievances.<sup>20</sup> For example, it is conceivable that in some cases they could reinvent themselves as constitutional monarchs and there are signs that many GCC rulers are considering reforms (Koch, 2011).

‘ The MENA region has been experiencing very high levels of demand growth ... There has been concern that, if unchecked, the implied growth in energy consumption could eat into the availability of oil for exports, threatening global supplies ’

To understand the implications of these two scenarios for oil markets, it is necessary to consider their possible impact on three issues – the depletion policy of producing countries in the MENA region, the reform of the upstream oil sector and relations within OPEC.

15 Often in scenario-building, three scenarios were presented – a sort of high/middle/low. However, users tended to simply assume the ‘middle’ scenario was the most likely. This is certainly not the case; thus increasingly only two ‘extremes’ are presented to provide a range. Users must then apply their own judgment as to probabilities.

16 Arguably this is more of a concern in Egypt where the military have been the backbone of the regime since the 1952 revolution. In Tunisia, President Ben Ali depended more on the internal security services and the recent election has offered some positive signs.

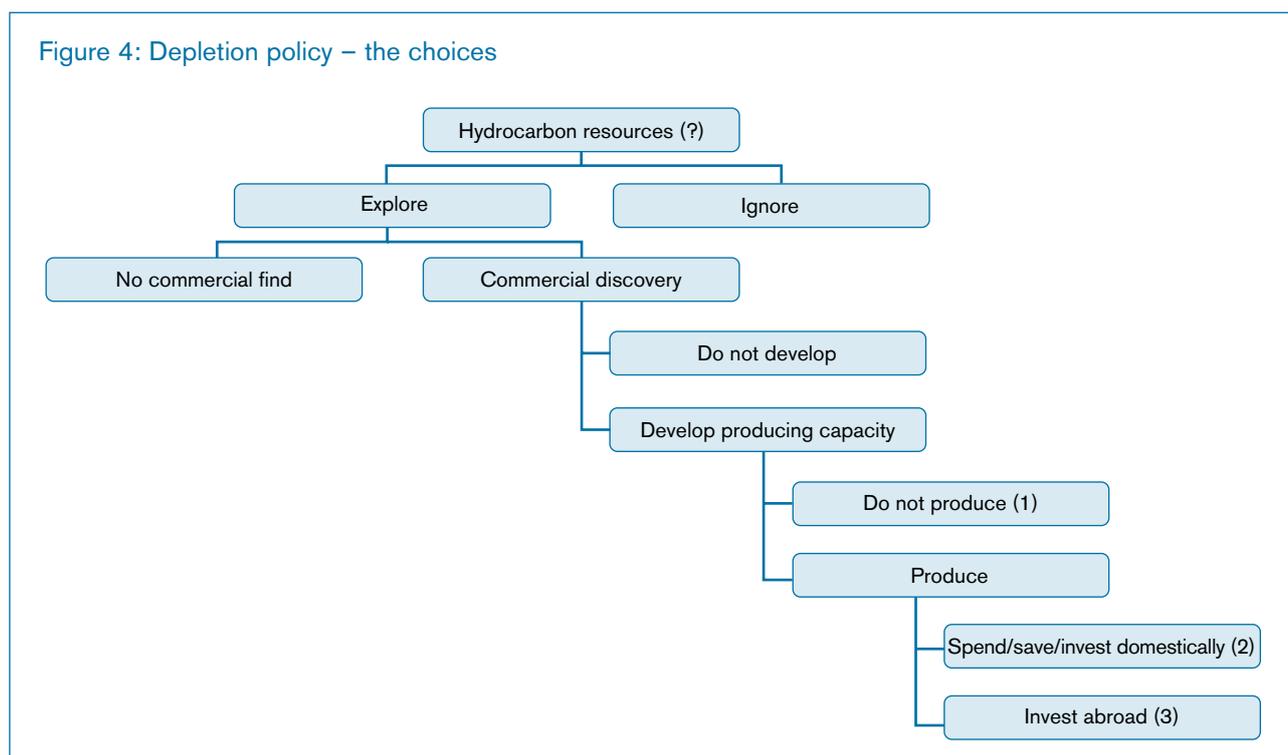
17 It can be argued that the more collective dynastic regimes in Saudi Arabia, Kuwait and Abu Dhabi have developed an awareness of and sensitivity to the people they are supposed to rule. They also have at their disposal huge amounts of oil revenues to buy the acquiescence of their populations.

18 Energy intensity is the amount of energy required to produce one dollar of output.

19 This has already happened in some countries. For example, Yemen and Sudan have been forced to cut subsidies for lack of funding.

20 See footnote 17.

Figure 4: Depletion policy – the choices



### Depletion policy in the MENA region

Figure 4 provides a framework for the analysis of depletion policy. This illustrates the nature of the depletion choices facing any country that may have hydrocarbon resources.<sup>21</sup> These are choices for governments because, outside the United States and parts of Canada, sub-soil hydrocarbons are the property of the state and the owner of the oil-in-place decides the rate at which it will be produced.

The choices are about ‘optimizing’ the resources and determining hydrocarbon depletion policy. Revenue deployment policy must also be considered if the decision is taken to produce the oil sooner rather than later.<sup>22</sup>

The first choice (1 in Figure 4) is whether to produce the oil now or later. If production is postponed, this choice earns a rate of return that will be positive if the

future rent<sup>23</sup> from the barrel is higher than today because oil prices have risen or production costs have fallen, or both. If the oil is produced today, then the choices are either to invest the revenue domestically (2 in Figure 4) or to invest it abroad (3 in Figure 4) through some form of oil fund. Of course, these three options are not mutually exclusive. Investing domestically will earn a rate of return that will be a function of the government’s ability to use the revenue productively and avoid the ‘resource curse’.<sup>24</sup> Investing abroad also earns a rate of return that will be a function of how well the oil fund and its portfolio are managed, the state of international financial markets and whether the assets are secured from political interference from other governments that may control their investment context. Optimizing the depletion policy requires governments to choose a course of action that maximizes the return given the three options.<sup>25</sup>

21 A more detailed discussion can be found in Stevens, 2009.

22 There is another option, which is to consider discovered oil-in-place or producing capacity as ‘strategic’ reserves to be kept in order to meet future domestic demand.

23 Defined as the difference between the full cost of production, including an acceptable rate of return on capital, and the market price.

24 Under the ‘resource curse’ windfall oil revenues lead to negative effects rather than benefiting the country (Stevens, 2003; Humphreys et al., 2007).

25 The role of national oil companies (NOCs) in determining the depletion policy will vary between countries. At the very least, governments will need to consult them on what is technically feasible both now and in the future.

Before the Arab uprisings there appeared to be a growing view among major producing countries that option 1 (leaving oil in the ground) was the most attractive choice. This caused many producer governments to revisit their capacity plans. For example, in July 2006 the Algerian oil minister announced that the country no longer wanted additional revenue. Algeria's debt had been repaid and there was a fear that more revenues would simply induce an attack of the 'resource curse'. The result was a new hydrocarbon law which appeared to be aimed at constraining the IOCs. The only exception to the 'leave it in the ground' approach among large oil exporters appeared to be Saudi Arabia, and even in this case the oil minister indicated in April 2006 on a number of occasions that there were no plans to go beyond 12.5 million b/d. King Abdullah himself suggested in 2009 that oil should be left in the ground for future generations. Such views gave rise to concerns that there was insufficient upstream investment, leading to an impending 'supply crunch'<sup>26</sup> within five to ten years (Stevens, 2009).

If the outcome of the Arab uprisings is 'business as usual', then the need of surviving regimes to spend more on pacifying their populations suggests there may be a tendency to try to secure the higher revenues needed by increasing current levels of output and expanding existing upstream capacity levels. This was certainly the response in many cases following the oil price collapse of 1986, and in the 1990s it led to an opening up of the upstream to the IOCs. Logic might argue against this since if everyone increased production to secure higher revenues, then over-supply would reduce prices. However, the international oil industry has always suffered from the 'fallacy of composition'<sup>27</sup> and feeds on consensus thinking. Furthermore, given the poor performance of many of the national oil companies (NOCs) in the region (Victor et al., 2011), the fastest way

to expand capacity would be to open up to IOCs as in the 1990s. This could also depend on whether there is a nationalist backlash following the Arab uprisings. There is a further dimension. As outlined earlier, as a result of the Arab uprisings, the decision to increase energy prices to slow domestic consumption has moved down the agenda in producing countries for fear of aggravating popular dissent. As domestic oil demand continues to grow in line with previous rates, the need to expand capacity simply to maintain export levels becomes relatively urgent.

In a 'business as usual' outcome, an important question would be how far IOCs might be willing to invest in a region that would still be seen as politically very unstable and very high-risk. After all, the 'business as usual' scenario amounts to the ruling elites putting the lid back on seething discontent, a solution that is unlikely to be sustainable for long. However, provided the rewards to the IOCs are seen as commensurate with the risk, this is less of a problem than many outside the industry may think: IOCs operated for over ten years in Algeria during a vicious civil war in which over 100,000 people were killed.

If the outcome is 'democracy develops', then the impact on depletion policy would be extremely uncertain and far more controversial. A central issue is whether democracies would encourage a faster rate of depletion than the previous autocracies.

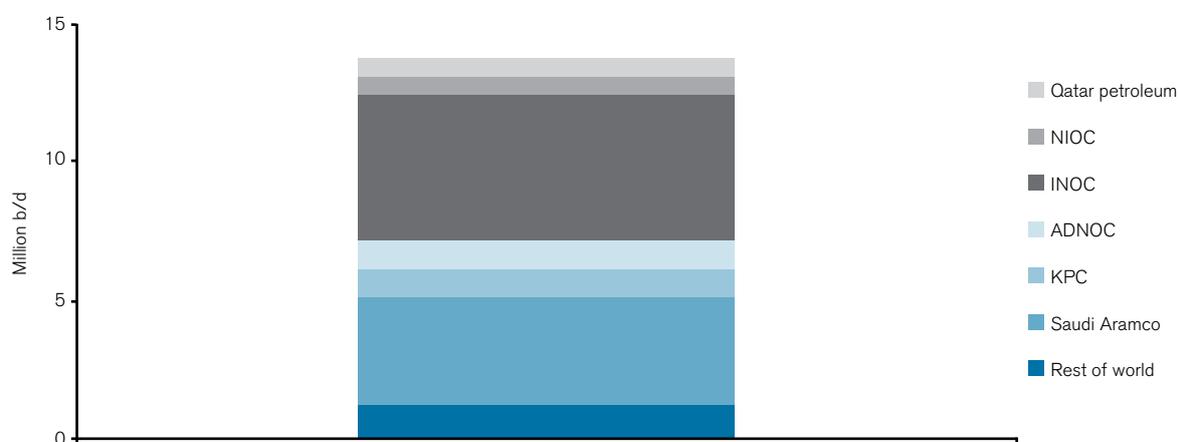
A good example from history relates to the very different experiences of the United Kingdom and Norway following the discovery of oil in the North Sea in the early 1970s (Stevens, 2011). In Norway, from the very first, there was a national debate over how to manage the newly found resources. The outcome was a decision to slow development with a specific objective.<sup>28</sup> The government concluded that an optimal way to benefit was to encourage the development of a world-class oil-industry service capability. This was an entirely feasible objective given

26 This is defined as a situation where spare capacity to produce crude oil falls to low levels and there is a geopolitical disruption to supply. The result is a price spike.

27 This suggests that any actor who takes a specific action will gain. However, if all the other players follow suit, the benefits disappear.

28 It is perhaps worth remembering that Norway was a relatively rich country before the development of the oil and arguably could afford the luxury of such a decision.

Figure 5: Sources of growth in oil production, 2010–35



Source: IEA, 2011.

Norway's long experience in shipbuilding. Norwegians had the skill base and infrastructure to build rigs, platforms and pipelines. However, they realized it would take time to adjust this to offshore oil. A slower development and production profile would allow Norway to develop this service industry.

This attitude differed significantly from that of the United Kingdom, where there was no national debate over the nature of depletion policy. Rather, the UK Treasury saw the prospect of early large-scale oil revenues as a mechanism to rescue an economy in serious difficulty at the macro level, especially with respect to public finances. The government therefore chose to seek development of the oil-in-place as rapidly as possible and to this end imported American technology and manpower at a very rapid rate. Subsequently, a newly elected Conservative government saw the oil revenues as a means to fund tax cuts.

If democracy does begin to develop in the MENA region, it is very uncertain which path the oil-producing countries would follow. The UK model would imply greater supply, which could be encouraged by opening up to IOCs. The possible threat of higher prices would depend upon relations within OPEC (see below).

The impact of the Arab uprisings on upstream investment has been much debated. The International Energy Agency's *World Energy Outlook 2011* puts the onus of increased oil supplies on the six major national oil companies in the Middle East, which might be dubbed the 'Six Brothers'.<sup>29</sup> Of the expected increase in oil supplies between 2010 and 2035 to meet the growth in demand, as Figure 5 shows, 91.2% will come from the Six Brothers. This would require investment of over \$100 billion per year. However, in its 'Deferred Investment Case' the IEA found that near-term investment might fall short by one-third. This shortfall would be driven by new social spending priorities and higher perceived risks by investors.

Ali Aissaoui of Apicorp came to a similar conclusion following the collapse of regional loan markets as banks lowered their country limits in the wake of the Arab uprisings and the European banks pulled back as a result of the eurozone crisis:

[G]iven the structure of capital investment stemming from [our current review of investment for the period 2012–16], internal financing would not pose major problems as long

<sup>29</sup> By analogy with Enrico Mattei's labelling of the major oil companies in the 1950s and 1960s as the 'Seven Sisters'.

as the value of OPEC Basket crudes stays above \$90/bbl. In contrast, external financing, which comes predominantly in the form of loans, is likely to be daunting in face of a combination of collapsing loan supply and persistently high cost. Faced with more pressing social demands, governments may not be able to make up for the funding shortfalls. Their best policy going forward is to attempt to regain private investment momentum (Aissaoui, 2011).

## Reform of the upstream oil sector

Before the Arab uprisings there were moves afoot in many of the MENA countries to reform the upstream sector. In particular, there were growing efforts to restructure and reform the NOCs, which many in their own countries regarded as high-cost and inefficient (Victor et al., 2011). These were aimed in many cases at encouraging the NOCs to take a more commercial stance and to become corporatized. In some cases privatization was very much on the agenda.

Different outcomes are possible. A 'business as usual' scenario, given the need for greater revenues, could reinforce the existing process of sector reform. Under a 'democracy develops' scenario there is likely to be a greater role for the private sector. After all, the implicit objectives of political liberalization include the development of economic liberalization.<sup>30</sup> This would also imply a speeding up of the reform of the upstream (and downstream) oil sectors and could lead to the breaking up of NOCs. In many cases this would improve the performance of the upstream oil sector, allowing the government to speed up depletion rates if voters so wished. It could also encourage the entry of IOCs. No democracy, apart from Mexico, excludes IOCs from the upstream sector, and in most cases such investment is actively encouraged.<sup>31</sup> Indeed, with the exception of Norway and Mexico, OECD members do not have an NOC that exports oil.

However, the alternative under a 'democracy develops' scenario could be quite different and could be driven by nationalism rather than by genuine private-sector interests. Many of the regimes that have been deposed or are under threat are seen to have been creatures of the West. There is a strong possibility that newly elected governments would be influenced by a nationalistic backlash among voters.<sup>32</sup> In the words of one observer, 'Arab publics in the near term will not elect pro-American leaders; indeed, Islamists are the most likely beneficiaries of change, along with Nationalists' (Fuller, 2011).

Nationalism could strengthen NOCs and inhibit the entry of IOCs. Furthermore, if the transition to democracy is slow and painful, with tribal divisions being prominent, the oil sector could suffer from a lack of direction, regulation and control. This might lead to countries struggling to maintain pre-2011 production levels. The example of Iran after the Islamic revolution in 1979 is a case in point, as is Iraq after the overthrow of the Saddam regime in 2003.

## Relations within opec

OPEC has played a key role in the oil market for the last 40 years, although what that role has been is quite controversial (Parra, 2004). One undoubtedly crucial function has been to rescue or protect prices from over-supply in the market. Since 1982, this has been achieved by agreeing on what the 'call on OPEC' might be to prevent over-supply, and then allocating that 'call' to members according to quotas. The system suffers from the poor quality of available data and from the fact there is no mechanism to detect or deter cheating on quotas. Some failures have resulted, most noticeably in 1986 and 1998, but often when the system looks close to collapse members have stepped back from the brink, agreement has been reached and the price has been retrieved. This ability ultimately to agree a course of action and stick to it, at least for a period of time, is central to OPEC's role.

<sup>30</sup> This is a controversial view since it suggests that democracies are more likely than autocracies to favour markets and the development of the private sector.

<sup>31</sup> Part of the reason for this is that very few democracies actually have an NOC and those that do, such as Norway, Malaysia and Brazil, have them listed on stock exchanges so they are to all intents and purposes 'corporatized', i.e. their 'national mission' has been relegated in their order of priorities. This indicates that a democracy has sufficient confidence in its own capacities and abilities to regulate and control the sector, and therefore uses concession-type rather than production-sharing agreements.

<sup>32</sup> This does not necessarily imply dominance by Islamist parties. Leftist groups may be more inclined to protectionism.

Traditionally, and long before the Arab uprisings, there have been divisions between OPEC members. Countries with small reserves tend to favour higher prices now, whereas those with large reserves may prefer to protect their future markets by maintaining lower prices to prevent oil-demand destruction. There are also divisions between pro- and anti-Western members, which have tended to replicate the division between those favouring pricing oil in dollars and those preferring an alternative currency such as the euro. Finally there is the division between countries that can easily produce more than their quotas and those struggling to meet their quotas.

Traditionally, there has also been a key division within OPEC between Saudi Arabia and Iran. At crucial times the state of their relationship has had a major impact on oil markets. The oil price collapse of 1986 was reversed by Saudi Arabia and Iran working together, as was the 1998 collapse when King Abdullah decided good relations with Iran were more important for Saudi interests than insisting on pursuing an OPEC policy of non-cooperation with that country. As noted earlier, the recent intervention of Saudi Arabia in Bahrain has brought relations with Iran to an extremely low point. This is likely to last as the Arab uprisings deepen divisions between Sunni and Shi'a regimes in the region. It aggravates the already poor relationship between King Abdullah and Nouri Al Maliki's Shi'a government in Iraq.

However, at the OPEC meeting on 14 December 2011, a couple of days after a meeting in Riyadh between Saudi Arabia's Crown Prince Naif and Iran's Minister of Intelligence and Security, agreement was reached very quickly and with little acrimony on maintaining OPEC output at 30 million b/d, although there was no discussion of the quota distribution. Observers noted that the Iranian delegation seemed subdued. This is not so surprising, as in the past deep divisions have been put aside when both countries faced the prospect of much lower oil prices.

However, this situation has been further complicated by the announcement by the European Union on 23 January 2012 of an oil embargo imposed on Iranian oil imports into

the EU. What the effect of this embargo might be is still to be seen (Stevens, 2012). However, many are expecting Saudi Arabia to step up and replace Iranian crude. If this happens on a large scale this would certainly greatly aggravate the poor relations between Riyadh and Tehran.

Oil prices will be volatile as political developments in the region combine with bad news regarding the global economy ... In the medium to longer term there is much greater uncertainty

Future OPEC meetings could well be like that of June 2011. Whether this matters depends upon the prospects for the development of surplus capacity to produce crude oil in a significant number of OPEC members. The key to this will be what happens to capacity expansion plans, but above all in the near term what happens to oil demand. The latter will be influenced by the global economic climate, which is currently extremely uncertain. The former will depend upon the equally uncertain longer-term outcome of the Arab uprisings and their impact on the depletion policy of the major exporters.

Another issue that would affect OPEC in the longer term is that, if members move towards a greater use of markets and the private sector under a 'democracy develops' scenario, enthusiasm for OPEC membership may dampen.

## Conclusion

In the short run there are no serious threats to real wet barrel oil supplies from the Arab uprisings to international markets, given that the key GCC suppliers are extremely unlikely to follow the path of others in the MENA region.<sup>33</sup> However, those determining prices in

<sup>33</sup> The same cannot be said as a result of the EU embargo on Iranian oil; see Stevens, 2012.

the paper barrel markets may be less than convinced about this. Therefore oil prices will be volatile as political developments in the region combine with bad news regarding the global economy. In the medium to longer term there is much greater uncertainty, depending on how the Arab uprisings develop and how their outcomes affect the behaviour of governments and their relations with OPEC. However, there is a strong possibility of greater oil supplies in future as a result of changes to depletion policy and in some cases a greater role for the IOCs. Both of these developments would help to prevent a major supply crunch.

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