Crisis management of crude oil shortage: the case of Libya in 2011

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Summary: This paper aims to examine how the oil consuming and oil producing countries acted in times of a great oil supply disruption. During the civil war in Libya in 2011, the Libyan crude literally was taken out from the oil market and the domestic oil production capacity was deliberately targeted during the hostilities by the fighting factions. The Organization of Petroleum Exporting Countries (OPEC) members could not reach an agreement on how to approach the situation and needed two meetings to reach a compromise on a new production limit. The International Energy Agency's (IEA) emergence release of Special Petroleum Reserves (SPR) emergency stocks seem to have little to do with the crisis itself but by rather with assisting the struggling economies of developed countries. Finally, the movement of major oil benchmarks such as Brent pointed at the fact that their moved not by quantities of oil produced by qualities of oil produced.

Key Words: Libya Civil War, OPEC production limit, IEA, emergency release of special petroleum reserves

1. Introduction

The socio-political stability of oil production countries has been an integral part of our every daily life. With them in war or unable to produce the expected amount of oil, each importing country is affected. In 2011, on the wave of protests in wider Middle East region demanding greater political inclusion of the population in the government of each respected country, the Libyans rebelled against the 42-year-old government of Colonel Gadhafi. Soon, their protest affected the oil production capacity of the country, which led to serious market crunch and involvement in the military conflict of major North Atlantic Treaty Organization (NATO) members such as the UK and France.

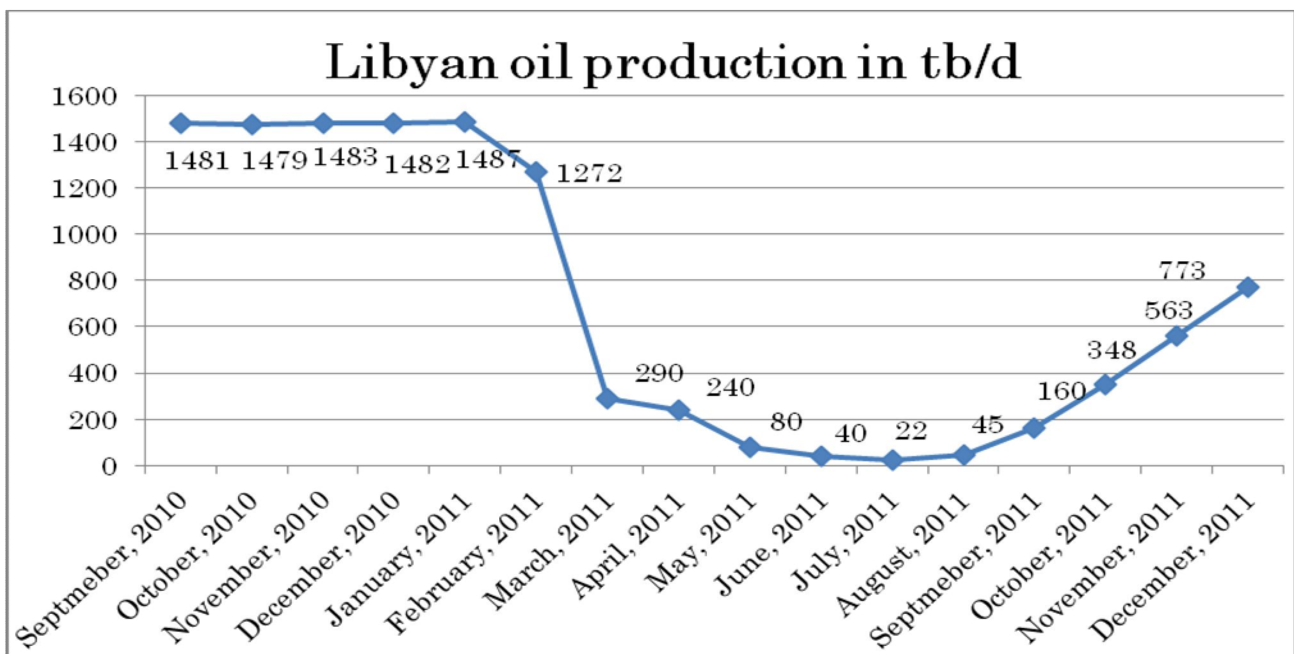
Still, the ongoing military struggle could not resolve the gap left by diminishing oil supplies from Libya to the global markets. In this paper, I would review the policies of the two major groups – the oil-production countries of OPEC and the oil-consuming nations of IEA and see how their decision shaped through the military conflict. To do so, I intend to use materials from their meetings, commentaries made by member-countries representatives and observers and analyze those in the light of the organizational regulations. In doing so, the paper will bring new understanding into the cohesion of the decision-making process inside OPEC and IEA and into their influence over the oil markets.

2. Libyan Civil War

As a result of the protests going on in the neighboring countries of Libya countries – Tunisia and Egypt, the ever adamant Benghazi region also began protesting against the decade long authoritarian rule of Colonel

Gaddafi. Soon those protest resulted in full-swing military conflict between protesters and regime loyalists. Such rule-defining demonstration had occurred in the past as well, but this time they happened on the wave of intra-regional movement. Expectedly, the international support and attention to the cause of the Benghazi region was much bigger than previous periods. There are two reasons for that: firstly, while in 1990s the Libyan regime of Muammar Gaddafi was isolated from other part of the world due to its development of nuclear program and suspected development of biological weapons, this time the country had been reintegrated in the international society after the rapprochement with USA under Bush administration; secondly, as a result of the reintegration of Libya in international society many international oil companies, noticeably such from Italy, Germany, France and China, had started operating in Libya. Not willing to negotiate with rebels from Benghazi, Gaddafi limited his possible international support by enraging other OPEC members such as Qatar and Saudi Arabia who feared from the backlash from oil consuming nations that oil price hike as a result of this conflict could occur on international oil markets. Moreover, governments of NATO members such as France and the United Kingdom tried to limit the casualties by directly intervening by targeting military installations and by providing weapons for rebel fractions. Soon, not only military installations but also oil production capacities became targets of the conflict. As a result, the crude oil output dropped dramatically, as could be seen on Figure 1. They were seen as a primary source of income for the battling Libyan regime, so they were not only military targets but also targets for achieving victory in the battle.

Figure 1 Libyan Oil production in thousand barrels per day



Source: Joint Organizations Data Initiative (JODI) and Organization of Petroleum Exporting Countries (OPEC) Monthly Reports for April 2011, October 2011, November 2011 and December 2011

Libyan oil production is famous for its light sweet inexpensive to extract sorts of oil that are highly sought

after on environmentally cautions European markets. In the first weeks of the crisis, after the pullout of the European and Asian workers and engineers, the oil production dropped to 290,000 bpd from 1.48 mln bpd two months earlier (JODI, 2011). In the most hardly fought periods of the conflict the production dropped to 22,000 bpd in July 2011(JODI, 2011). The capture of the Libyan leader Muammar Gaddafi in October 2011 put ended to the deadliest part of the conflict and secured the victory of the National Transitional Council (NTC). Thus, the hope that the pre-war production level would be restored arrived to the war-torn country. However, in the months following the end of military hostilities, the collection of weapons from different militias groups has been of the issues to the new government. Those groups could endanger the rapid restart of the oil production since most of them are located in the oil heartland of the country.

3. OPEC and IEA response in time of production loss

To tackle the issue of sudden production loss the two organizations of the oil-consuming and oil-producing countries – IEA and OPEC – have two mechanisms of supporting crude oil production losses. The consuming nations could undertake release of stocks from their special petroleum reserves. The major production nations could increase their production levels to reduce the impact of oil loss.

International Energy Agency (IEA) has undertaken twice emergency releases of SPR stocks: during the 1990/91 Iraqi invasion of Kuwait and subsequent burnout and in 2005 after the Katrina hurricane.

Organization of the Petroleum Exporting Countries (OPEC), on the other hand, has a very complex decision-making process dominated by dove and hawk countries or countries supporting or opposing the maintenance of the quota system. Still, a collective decision historically was very hard to take. A major constraint is the presence or absence of spare capacity in each member countries. Such spare or idle capacity has been always association with the three major Gulf producers – UAE, Kuwait and Saudi Arabia. In times of great needs, or capacity disruptions, only those three have been able to assist the oil markets with new production.

4. OPEC's internal disputes

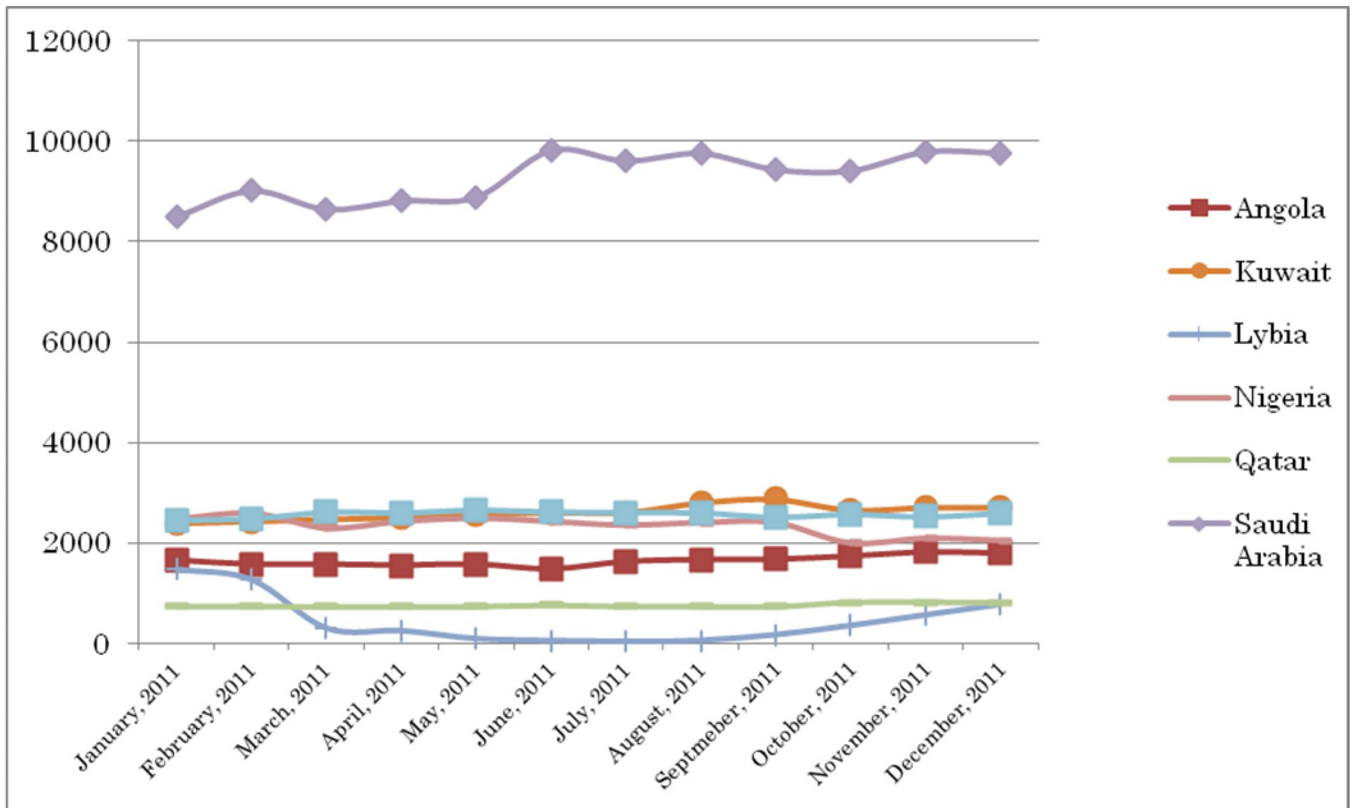
First to act upon the Libyan oil and rising international prices of crude oil were oil-production nations. They tried to decide whether to increase the production levels at a meeting in Vienna, Austria. During the OPEC meeting in June 2011, Iran defended the position that there is no oil shortage in the market, while on the other hand the Arab Gulf producers defended the position that an increase in the oil production would bring stability to the oil markets and the assure the consumer countries about the viability of oil coming out from the organization member countries.

The meeting highlighted the major weakness of OPEC: its dysfunctional structure due to the fact that the spare capacity is not present in each producing country and is not evenly spread between its members. UAE, Saudi Arabia and Kuwait hold 4 mln bpd output and by this power they could influence each decision of OPEC by only exercising their power and utilizing that production capacity without taking into account the policy-making objectives of other producers. Moreover, in those countries case, their capacity is quite cheaply maintained which gives them advantage when they need to compensate the loss of revenue to keep maintain those facilities.

According to OPEC data released before the meeting, the demand for oil for OPEC in the second-third quarter rose by 2,1 mln bpd (OPEC 2011). Nigeria claims to have increased its production with 33% in the

post-conflict period as means to reduce the shortage of light sweet oils on European markets. Still, that amount could not offset the loss of Libyan oil, as it is shown on figure 2.

Figure 2 Monthly Crude Oil Production of selected OPEC nations in 2011



Source: OPEC and JODI

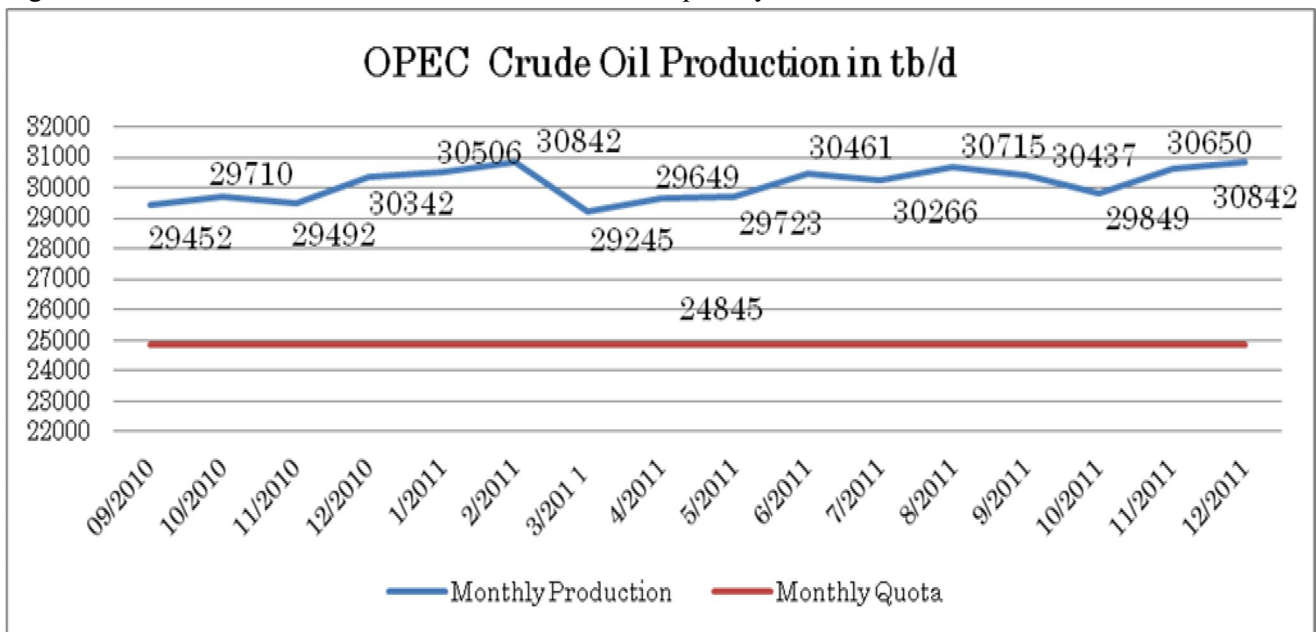
Saudi Arabia increased its production from 8.86 mln bpd to close to 10 mln bpd in June but only Japan and India were willing to buy it due to its qualities and due to the lack of extra capacity in refineries being able to process Saudi crude. Indian demand for more Saudi oil, however, came in time of balance of payment dispute between India and Iran, and was not caused by spiked oil demand (BBC, 2011). On the other hand, to prevent social unrest Saudi king embarked on a series of social spending programs and the extra income generated by oil products could play a serious importance to the state budget requirements, considering the growing domestic consumption of oil from transportation and power generation. Currently, Saudi Arabia consumes domestically approximately half of the oil it produces and the increased consumption coincided with increased domestic demand for power generation in the hot summer months on the peninsula.
In the end of the meeting, no comprise was reached and the Gulf sheikhdoms led by Saudi Arabia were the real winners from the OPEC debacle. They were praised by EU and OECD countries while the extra production they generated from their cheap spare capacity led to increase in their profits in times of high oil price. However, Saudi production in September came down from 9.8 mln bpd to 9.3 mln bpd (JODI 2011). The budgetary constraints were of immense importance to each OPEC member, due those policies to prevent social unrest, and it emerged during the Vienna meeting that those countries would become concerned if the

oil falls under 90 US$/b.

Other major concern to the organization structure of OPEC emerging from this meeting was the decision on OPEC quotas, or the production limits introduced in 1980s as a measure for the organization to control better the members' oil policies. The group failed to reach an agreement on quotas for the first time in at least 20 years however during this meeting. A Saudi Arabia-backed proposal to boost output to make up for lost Libyan supply and adjust the quota system to the actual production was rebuffed by Iran, Venezuela and four other countries. As a result of the meeting, several member countries kept on increasing their oil output. The most noticeable movers were Saudi Arabia and Angola. Saudi production in July reached 9.8 mln bpd – the highest point since 1981 and Angola reached a peak with 1.66 mln bpd production. While the Saudi decision was deliberate, the case of Angola had more to do with the specifics of the local production.

After the end of major hostilities in Lybia, the OPEC members got together once again in Vienna in December 2011. During this meeting a major boost of the OPEC oil production ceiling was expected. However, that decision did not come from an agreement between the member states on the future of oil production or on the oil fundamentals, but from *ad-hoc* confirmation of the production change in the last year, as it is shown on figure 3. Moreover, any consideration for the economic risks from such hike was shelved until the June meeting in 2012. At the end of the year, the Europe debt crisis and crippling economic recovery worldwide caused decline in the global oil demand and put question marks over the wisdeom and viability of that decision.

Figure 2 OPEC Crude Oil Production in thousand barrels per day



Source: OPEC and JODI OPEC production is inclusive of Iraq but the quota excludes Iraq from abiding by the quota system

During the December 2011 meeting, the organization introduced a new limit from 24.845 mln bpd to 30 mln bpd without setting individual quotas in consideration of inclusion of the restored Libya production and Iraq exclusion from the quota system (OPEC, 2011). The actual production by OPEC members was at least 2.81

mln bpd higher than the group quota at this time excluding for Iraq and Lybia. The major motivation for that increase was in accordance to OPEC chapter, and namely, keeping the market in balance. However, OPEC is raising its quota to more closely match actual production while at the same time gauging the possibility of a slowing global economy and rising Libyan supply.
This decision came in light of the last quota decision in 2008 in the wake of the global financial crisis. Then OPEC set a quota at a meeting in Oran, Algeria, when the group announced record supply cuts.

5. IEA's release of emergence stocks from SPR

As a result of the first meeting in Vienna and OPEC's inability to secure more oil to the market, IEA took a decision later that month to release stocks from their SPR (IEA, 2011). They amounted to 60 mln barrels of oil for a period of one month.
That IEA release of emergence stocks coincided with three major developments in USA. Firstly, the US refineries demand decreased by 2,5%, so they needed some support. Secondly, with the fats approaching US presidential elections and the slow economic recovery, the country needed way to stimulate consumers and support the industrial recovery. According to the JP Morgan study, this releases equaled 160 bln US$ stimulus, which in fact is smaller amount that those provided by the state in the wake of financial crisis. Moreover, it coincided with the increased production levels from Kuwait and Saudi Arabia, and it supports the claim that the release did not aim recovering international oil market shortage but rather at providing the domestic political US incentives
International Energy Agency (IEA) released amount of oil per day, which is equal to the capacity of four refineries. That release is more associated with the quality of oil per se rather with the amount of oil. As discussed above, the Libyan oil is light sweet and its loss could not be compensated with raised production from heavy/medium sour oils from the Gulf before some upgrades being performed on the local refineries. Besides, the oil from the IEA reserves is predominantly light sweet and easily eased the loss of production from Libya quality-wise. Quantity-wise, the amount is dwarfed by the Libyan output of 1.486 mln bpd (OPEC 2010). Still, it could be argued that the release by IEA aimed to support the dwindling role of European refineries as well at a time, when they had been stifled by Asian competitions and low profit margins even prior to the conflict.
Moreover, IEA's decision seems to be short-termed without having any impact on the long-term of the oil markets due to its small quantity. 60% of SPR release only was light crude and thus the Brent price oil did not subdue for longer period (ICE, 2011). The SPR emergency stock release decision lasted only for a month thus and did not meet the requirements for emergency stock release. In the end, when the emergency stock release reached the market in July/August the spare capacity of OPEC remained 3.3 mln bpd and we can argue that the Libyan oil loss was compensated by spare oil production and decreased demand and not by emergency release reaching the market. Therefore, the 2011 IEA's SPR emergency release failed to achieve their goals and the organization's mandatory requirements.

6. Conclusion

This paper aimed to provide an explanation for the decision-making process done by both OPEC and IEA in the wake of the Libyan Civil War and production disruption it caused. It argued that the OPEC decisions

were mainly taken ad-hoc and with little consideration for the global market and greater emphasis on the domestic political economy developments in each member country. The omni-presence of cheap to maintain spare capacity in the Arab Gulf countries guaranteed them the opportunity to get the greater share of the increased demand for oil.

The IEA's release of emergency stocks in that small amount and in that short period of time had more to do with the member countries' economies situation rather with any effort for the stabilizing the markets. The movement of ICE Brent contract proved in 2011 that Lybia loss was not about the quantity but about the quality of the oil that matter for stabilization of the oil market.

Soon after the end of the hostilities the new government expected at least two to three months for recovery of the production to reach 500,000 to 600, 000 bpd and at least a year to reach the pre-war levels of 1.4 mln bpd. Still, OPEC has not figured out a way to accommodate the new oil influx in their quota system in times of dwindling oil demand. Therefore, the decision made at OPEC to increase the group's production limit without considering the sluggishness of the global economy and the growing production of Iraqi oil reaching the markets could have important ramifications for the OPEC members in 2012.

In the end, the 2011 Libyan Civil War serve as a good example of two major energy organizations failing to reach a compromise and shared strategy over the sustainability and viability of oil as an important source of energy by causing consumer panic over the availability of oil. So, it served to show the necessity of joint mechanisms to handle any crisis in the future.

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