The impact of shale resources on convergence and divergence in OPEC and oil producers

Introduction:

Since drilled the first oil well in Pennsylvania up to now, oil world, especially oil trade world, with politic and international relations world have always been mutual interactions. This interaction was in such a way that many people believe that oil is the most political good in the current era which has a determining role in both economy and politic of the producer of this mineral material, and extremely affects the economy of the big countries which import it. The climax of this interaction was the formation of the Organisation of Petroleum-Exporting Countries (OPEC) in 1960, and the determination of exporting countries to make a unified policy toward the petroleum importers. But this international organization hasn’t always had fixed and guaranteed position in the world of petroleum political economy, although in the early days of its formation, big petroleum companies, newspapers, and western politicians considered it as a funny thing. But they gradually accepted it. However, based on the level of its members' convergence over petroleum price management in the world market; unbiased supervisors evaluated OPEC role from a powerful organization to a dying one. Therefore, the interaction way among its members and their decision making have accounted among the issues which have been effective in its position in the world. This research tries, through an investigation on the interaction way and conflicts among its members inside the organization, to show how the new shale oil sources can affect the interaction way and decision making inside this organization, and as result, its world position.

OPEC in the Ground of Members' Interaction:

In April 1959, through the innovation of Saudi representative, Abdullah Tariki, and Venezuela representative, Perez Alfonzo, at the end of the first Arab Petroleum congress in Cairo, for the first time it was seriously discussed about the possibility of making an organization in which all petroleum producers whether they are Arabic or not would take part. So representatives of important oil producer countries took part in this discussion. The result of this condensed and private discussion was making and writing of a secret contract which was signed by representative commissions of main petroleum exporting countries like Iran and Venezuela. The discussed issues of these secret meeting and contracts were primary concepts of the core of making the Organization of Petroleum Exporting Countries.

After achieving this important but primary agreement, Alfonzo and Tariki released a common announcement in which they asked all producing countries to take a common policy to guarantee the defence of their common interests. On the other hand, after 5 months, in August 1960, big petroleum companies reduced oil price without consulting oil producing countries. This action increased the concerns of petroleum countries about stay outside of the area of decision making on this issue and their stimuli for organized union.

After this event, in late summer 1960, representatives of main five petroleum exporting countries (Iran, Iraq, Saudi Arabia, Kuwait, and Venezuela) 10-14 September gather together, and after long negotiations, the formally decide to establish Organisation of Petroleum-Exporting Countries (OPEC). From the beginning of the negotiations to establish OPEC, the opinion of this organization’s founders was that European petroleum producing countries and the two main super-powers would don’t enter the newly made organization as members. However, the inevitable effectiveness of Soviet Union in energy market, forced OPEC to interact with Moscow.

Anyway, the OPEC charter was formulated through two resolutions. These two resolutions were passed in the first conference in 14 September 1960, and were signed by representatives of the five
founder countries. As it is mentioned in these resolutions, mere purpose of this organization is concentrated on economic frameworks, whose most important ones are:

1. Trying to return, by any method, the petroleum price to those prices before the recent decreases.
2. Using a suitable diplomacy to control the prices on a fixed level and preventing unnecessary changes of the prices.
3. The necessity of determining world price for petroleum based on market condition and by consulting exporting countries.
4. Finding a procedure to provide the stability of the prices and taking the policy of controlling the amount of products to keep desirable prices.
5. Doing necessary studies and actions to provide a fixed income for producing countries to provide petroleum need of the consumers and paying a fair salary to investors and distributors.
6. Organize regular communication between OPEC members to integration and unification of the petroleum policies of member countries and determine the best way to protect the interests of Petroleum Exporting Countries, either individually or together.\(^1\)

In the second meeting in Caracas in January 1961, the agenda was discussing the Baghdad conference subjects, and also pricing matter. But the key subject of this round of the negotiations was the method of marketing for petroleum of the members. And this turned into the first disagreeable subject among the members. Venezuela, Saudi Arabia, and Iraq were in favour of dividing the costumers, according to geographical divisions, in a way that North America zone would be known as Venezuela’s costumer, and Western Europe would be Middle East’s. But Iran and Kuwait didn’t accept this procedure.

In 1969, the relation between Iran and Arab countries was influenced by the political disagreements of Iran and Iraq, and it turned weak, this was coincident with the dispute between Arab members and Iran on the way of using the members’ petroleum incomes, and the Arabs use of petroleum as a political good.\(^2\)

By entering the 70\(^{th}\) and decreasing the internal divisions due to the increase of petroleum price, OPEC power’s elevation started and continued to mid-80\(^{th}\). For example, in the meeting of 22 April 1976, the clash between Iraq and Algeria in which Algeria accused Iraq of great discount in Mediterranean Sea, and the necessity of removing the differences in prices among the members was somehow over. The pressure of decreasing the prices in early 80\(^{th}\) caused an agreement on the quota system to control the prices, in the ministerial meeting of OPEC countries in 1983 which was held in London.\(^3\) The convergence of OPEC petroleum producing countries was as powerful as that the threat of market’s downfall encouraged non-OPEC producers to rush to help OPEC members.\(^4\)

But from the beginning of 1985, disagreements over the price restarted again among OPEC members.\(^5\) Between OPEC’s Persian Gulf members and its African ones, between the producers of light and heavy oil, and so on, consequently, members started to violate the agreed Quotas. As the breaches of the determined Quotas started, Saudi Arabia informed others of, losing his patience on controlling the prices.\(^6\) And empathized that keeping the role of market counterbalance for that country which has been forced to decrease his product to 2.3 million barrels, wasn’t possible anymore. Hence, meetings of 5–7 July in Vienna failed without any results. The disagreements were so deep that the meeting of 4 October 1985 also failed, and there was no agreement on prices, because of political disagreements among the members, especially, between Iran and Iraq. Therefore, OPEC suspended regulations of determining the prices in late 1985.\(^7\)

\(^1\)https://mees.com/opec-history/1960/09/16/first-opec-meeting-held-in-baghdad/
The prices falling down continued up to a point that Saudi Arabia as the regulator of the market in early 1986 warned OPEC members that if they didn’t force themselves to maintain the highest allowed product, the prices might fall down to lower that 15 dollars per barrel.\(^8\)

The prices pressure drove the Soviet Union a way to cooperate with OPEC and non-OPEC producers in order to control the prices.\(^9\) Despite the signing of an agreement by OPEC members and 5 non-OPEC producers to control the product and increase the price in 21 March 1986, the disagreements among OPEC members were still deep and steady; one of the reasons of those disagreements could be the serious disagreement between Iran and Iraq.\(^10\) In this disagreement, Iran, Libya, and Algeria were in one block, and Saudi Arabia, Iraq, and their allies were on the other side of the story. In this disagreement, Saudi Arabia and his partners highly insisted on non-OPEC members’ cooperation, however, Iran and his partners insisted on decreasing the product of OPEC members through the framework of the Quotas. Finally, in August 1986 the members agreed on returning to the highest level of production in 1984 which meant 16 million barrels per day. The members agreed on the fact that Iraq produced as much as he can. Non-OPEC producers also followed this agreement; in a way that Norway announced that he would decrease 10% of his production\(^11\). This agreement was respected for 2 years. But from October 1988 after a gossip on disloyalty of the members, Saudi Arabia threatened that if other members didn’t follow the quoting system, he wouldn’t be loyal to the Quotas\(^12\). So OPEC returned back to its decline era.

During the 90th, thanks to the relative exit of Iraq from Petroleum market, clashes among the members were lower, and the petroleum price went through a steady state, in such a way that in the meeting of the middle of the decade in June 1994, members agreed on the prices, but they left unsolved the issue of selecting secretary general.\(^13\) In Jakarta meeting, in December 1997, after 2 years of not following their Quotas of producing by the members, they agreed on determining a new Quota system and an increase of 2.5 million barrels to the highest amount of OPEC product. Just because of world economic recession at the end of the decade, the petroleum price started to fall down again, consequently, in the ministerial meeting of the organization in late March 1998, OPEC members and non-OPEC producers again agreed on decreasing their production. This OPEC action to make a price mechanism resulted in empowering and fixing the prices over the early years of 21\(^{st}\) century. In late March 2000, at the ministerial meeting of the organization, new mechanism of pricing was agreed on. Maybe, we can relate the cause of this amount of agreements over a few late years of 20\(^{th}\) and early years of 21\(^{st}\) century to the decreasing of disagreements among members of the organization in this era.

Mixing the market forces, speculation, and other factors resulted in changing the conditions in 2004; they caused increasing and intensifying price changes and petroleum over supply in the market. But intensifying Iraq’s problems as an effective OPEC member and consequently, petroleum price increase caused that, the internal disagreements of the organization didn’t seem so important, in such a way that the organization managed to write and pass its long term strategy in 2005. And over the second and third OPEC meetings in 2000 and 2007, in Caracas and Riyadh, through some agreements over making fixity in energy market, stable development, and improving environment, it stepped forward to convergence, in such a way that before the middle of 2008 and before the occurrence of financial crisis over the world and economic recession, petroleum price reached to its highest level in its history.\(^14\) The world recession in 2008 resulted in falling down of the prices, but during this period,

the relative convergence resulted in an agreement on the decrease of 2.2 million barrels of petroleum at the ministerial December meeting in Algeria, and this was kind of the last agreement of the organization members before OPEC ministers’ agreement of 30 November 2016. 15

During early years of second decade of 21st century, the situation of world economy seemed that petroleum market was facing some risks, because some uncertainties in world's macro economy were observed, and the international financial system was facing some risks. Rising social unrests in the early years of this decade, in most world regions especially, Middle East and North Africa, influenced supply and demand however, the markets remained relatively calm. The prices were fixed form 2011 to the middle of 2014, but after emerging oil over supply in 2014, prices suddenly started falling down. 16 Due to the beginning of prices’ decrease, to prevent further falling of the prices, efforts increased inside the organization, however, the depth of political disagreements, and Member threshold different vulnerability to oil prices, prevent them from making any decision inside the organization until 30 November 2016.

OPEC in the Ground of Disagreements:
A review of the way of the members’ interaction and the methods of removing the disagreements and making agreements inside the organization shows that the gaps between the OPEC members can be divided into two general parts.

A. First part: political-ideological, nonfinancial, and nontechnical disagreements that has continued its life from the time of its formation by weakness and intensity and different blockings. This disagreement itself is divided into two subgroups.
   I. disagreements because of race classification between Aran and non-Arab members

For example, Arab countries in the beginning of the formation of the organization started their clash with non-Arab members to get the position of secretary general, although this way wasn’t successful because of Iran and Venezuela’s resistance.

   II. Ideological clash in the form of Marxism- Capitalism and in a frame work of cold war among the organization’s country members.

For example, during early negotiation to establish OPEC, there were two main opinions. Iran’s opinion was close to western block, whose aim of establishing OPEC was economic purpose and increasing incomes through direct impact on determining petroleum’s world price, and he was not willing to politically encounter West and big petroleum companies. Another opinion was belonged to Iraq with the intention of anti-imperialism which rather than economic aims, wanted to gain advantage of petroleum as potential political trick against West. Since this group believed that OPEC on the ground of energy market was along with Soviet Union on four common grounds: (1) reaching a fixity in petroleum pricing, (2) forming a united front in front of big petroleum companies, (3) being in harmony on determining the production amount, and (4) doing research on petroleum’s world pricing criteria.

Not only didn’t these gaps decrease by Iran’s revolution in 1979 and its exit from Axis block west, but also because of the war between two effective members of the organization, intensified and became more complicated. That means both gap between Arab and non-Arab, because of Arab countries who supported Arabic Iraq against non-Arab Iran, and ideological Marxism-Capitalism gap, as Iran entered


the anti-American countries' group which saw America as a symbol of capitalism, extremely increased.

B. second part: technical disagreements among the members for determining petroleum price

This disagreement has taken different forming in different eras. As it was mentioned before, during the early years of OPEC formation, disagreement was over the way of determining a geographical territory\(^{17}\) for trading petroleum, but in 70s, the disagreement was drawn to a formula of determining petroleum price and the oil production ceiling, and from the second half of 80s up to now, the disagreement has been drawn to determining Quotas and organization’s oil production ceiling.

**OPEC under the Shade of Shale oil Sources:**

As the mechanism of members’ disagreement became active inside the OPEC organization after 2008, the organization which hasn’t practically seen any effective agreements among its members for more than 8 years, it was hearing the murmur of his death from any directions. But in late 2016, despite persist and even deepen of political disagreements among key members, efforts inside the organization extremely increased, in a way that not only did they succeed to make convergence to reduce their production and make agreements, but also unify one of the biggest non-OPEC producers, Russia, to reduce world residue production.

There were always different variables which have influenced the way of decision making and the level of convergence among the members of the organization. But now, and during a few recent years, another factor has been added to these factors, as we will show later, it can extremely influence the relation of the organization’s members and even affect the existence of the organization in future. This variable is called “shale sources” which has entered the world market as a contestant for OPEC members’ production in a few recent years, it has shown a capacity of ability to influence the way of intra-organizational interactions of OPEC members and to cause more convergence or divergence inside the organization. It is a new source with large potential but expensive and having a lot of environmental problems.

This new fossil energy source, which is called American miracle, suddenly caused Oversupply in the market in such amount that the prices face falling down. At the beginning of the falling down, the way which OPEC members used to confront this phenomenon displayed the complete crisis among the
members. The overcoming of political tension between Iran and Saudi Arabia over their economic interests, from one hand, and the clash between OPEC and other non-OPEC producers like Russia on the other hand caused the organization Incapable to make decision about a solution to control the price. But suddenly, in late 2016, and after several meetings, despite the deepening political differences among members, the agreement was that for many, was as an historical agreement.

Although Understanding the mechanism of reaching to this agreement is not so difficult, but it can help us to analyze the future of the OPEC. Having a bigger portion of the world energy market by OPEC organization, gives it more power and relatively unique influence, which from one hand can be influential over the empowering the general prestige of the organization among other international organizations, and from the other hand, it can improve international position of each member in international system. This rise of position causes the members to be more biased on the organization as a whole and more loyal toward it. The point is that as much as production portion of the unconventional shale sources, whether oil or gas, increase, the portion of conventional sources decrease. And since the production of OPEC members come out of conventional sources, elevation of shale industry results in the decrease of OPEC portion in fossil energy market, and consequently the descend of the position of the organization in international economic and politic scene. Decreasing the portion of OPEC in fossil energy market, and consequently the decrease of the portion of each organization member from the world market, will result in reigniting Quotas war and this can challenge the way of interaction and even the organization’s life.

A review of the history of the negotiations and disagreements of the organization shows that the main dispute in OPEC was in the battlefield of determining the Quotas. The new apportioning system which started its work from London meeting (1983), and after a sudden downfall of petroleum price; had two main bases, capacity of current production and amount of stocks which has constantly been point of members’ disagreements. Decreasing POEC’s portion of world’s oil market resulted in intensifying the disagreements, and effort to redefine Quotas will result in developing clashes among members to gain bigger portions of scarce sources of power and wealth, therefore among the members in order to regain these vanishing sources or seizing their remain, a rage of behaviours from better cooperation to more sever clashes can form, Which can even lead to the collapse of the organization. This range of various behaviour depends on the amount of shale source production, and the influence of the organization policy making on its production control.

In this field, at least we can mention three scenarios:

1. Relative production development out of shale sources
2. Stopping development of production out of shale sources because of environmental and technical problems, and not being economically affordable in comparison with conventional sources
3. Becoming commercial and prevalent of production out of shale sources

American energy agency (AIE) about this ground has released three scenarios for producing shale oil in this country. Which that can help us on this ground. Analyses on American shale oil are important because this country as the current biggest producer of this raw material is also accounted as the best owner of its technology.

In the first scenario which is the base one, of 5-million-barrel shale oil current production of the world, 4.3 million barrel belongs to America, which is going to rise to 6.2 million barrel in 2040. In
the worst scenario for shale petroleum production, of 7.1-million-barrel oil production in 2040, only about 3.2 million barrel will be belong to shale oil, however in the best scenario for production out of shale sources out of about 17.2-million-barrel oil produced in America, about 11.5 million barrel of it will be belong to shale sources. In all of these scenarios the amount of reduction of American production out of conventional sources up to 2040 has been estimated about 200 thousand barrels per day which is a very small portion. Therefore, we have to seek for the main determining factor of oil price in future of energy market among shale sources.

If we suppose the world demand for oil in 2015, 93 barrel per day, it will reach 109.4 million barrels per day in 2040, however, producing oil out of shale sources based on base scenario from about 5 million barrels in 2015 will reach to about 10.2 million barrels in 2040.23

Also, if the production of oil in 1965 has been 32 million per day, this number world have reached to about 92 million barrels per day in 2015 which means over 50 years, an annual average 1.2 million barrel has been added to the world petroleum production. So, if we consider this amount of growth, the amount of petroleum existing in the market in 2040 must be 123 million barrels per day, which means, based on predicted demand for 2040 by OPEC, more than 13-million-barrel residue petroleum will be in the market. And this amount is almost the same as the amount of world shale oil production in that year based on the base scenario.

Now, what is debateable is the existence of this oversupply and its management in fossil energy market especially oil market. The difference of the supply, between the best and the worst scenarios for producing oil only in America, is more than 8 million barrels per day, however, if we consider the products of shale gas sources, then the energy market will encounter with more over supply. The existence of this residue and the way of its management and control by OPEC can provide the grounds of convergence and divergence inside this organization.

Summarization and Conclusion:

Historical experience of the members' interaction in OPEC organization shows that, at the beginning of prices' decrease, the negotiations for regulating the market usually don't succeed so much, because during this period, members are concentrating on their own political interests, but gradually as financial pressures over members, which usually has a single-product economy that is rely on oil, increase, by members' ignoring the political disagreements, convergence increases inside the organization and an agreement is reached.

Before the emergence of the shale oil in the market, since the only source of providing oil oversupply in the market was OPEC, its members' agreement resulted in price increase or at least fixity of the market. This procedure so far has resulted in fixity and permanence of the organization as a whole, although many of its members have entered and exited. But after the entrance of the shale sources to the market, as new sources have added to the energy markets, whose direct control is out of the control of this organization's members and its agreements, this procedure might be challenged. Since oil and gas unconventional source compared with conventional sources, have some problems on the
bases of expenses, extracting technology, and environmental challenges, the relation of shale source with OPEC organization and its members can be evaluated in two general scenarios. Although each of these scenarios could have various subsystems inside:

1. Removing the technical and environmental problems of extracting out of shale sources, and production out of unconventional sources to become compatible in comparing with conventional sources of oil and gas.
2. Permanence of technical problems and high cost of extracting out of shale sources and development of environmental disagreements with it.

In the first scenario, OPEC’s decisions will have the least impact on production out of shale sources, which means, this organization’s role in the international energy market will decrease, and this can intensify disagreements and disturb the decision making of this organization. In this case if each member, under economic pressure and for providing its basic financial needs, would be forced to sell its petroleum by any prices, intra-organizational disagreements would be more and more intensified, and it can even result in total collapse of the organization.

But in the second scenario, since the internal agreements and convergences of this organization can make a use of the economic advantage of production out of conventional sources, to have direct impact on the amount of production out of shale sources, it can ignore the political disagreements and enhance convergence inside the organization. As the key members of the organization, Iran and Saudi Arabia, in their agreement of late 2016 showed, if the members could overcome their own political disagreements in order to provide economic interests and reach the goals of OPEC organization, controlling the production out of shale products, considering its weak points, is not implausible, because just after this agreement and controlling petroleum price, the amount of investment and production out of shale sources reduced. Therefore, from this point of view, shale sources can increase the grounds of convergence and agreement among OPEC members.