



March. 2009 / No.112

#### Published by:

IRANIAN ASSO - CIATION FOR ENERGY ECO-NOMICS (IRAEE) ISSN 1563-1133

#### Director and Editor-in - Chief:

Seyed Gholamhossein Hassantash **Editorial Manager:** Homayoun Mobaraki

#### **Editorial Board:**

Majid Abbaspour, Reza Farmand, Ali Moshtaghian, Mohammad-reza Omidkhah, Ebrahim Bagherzadeh, Fereidoun Barkeshly, Hassan Khosravizadeh, Mohammad-ali Movahhed, Behroz Beik Alizadeh, Ali Emami Meibodi, Seyed Mohammad-ali Tabatabaei, Afshin Javan, Hamid Abrishami, Mohammad-bagher Heshmatzadeh, Mehdi Nematollahi, Mozafar Jarrahi, Ali Shams Ardakani, Mohammad Mazreati

#### Layout:

Adamiyat Advertising Agency

#### Advertisement Dept:

Adamiyat Advertising Agency Tel: 021 - 88 96 12 15 - 16

Translators: Mahyar Emami, Hamid Barimani

Subscription: Hamideh Noori

IRANIANASSOCIATION FOR ENERGYECONOMICS
Unit 13, Fourth flour, No.203, Vahid Dastgerdi (Zafar) Ave., Tehran, Iran
Tel: (9821) 22262061-3
Fax: (9821) 22262064
Web: www.IRAEE.org
E-mail: Publication@iraee.org



#### **INDEX**

Articles on Oil & Gas in the English section, in cooperation with IranOilGas.com

Oil and Iran's Forthcoming Presidential Elections / 2

Fourteenth Oil Exhibition; Under Different Circumstances / 6

Oil Industry Leadership or Providing
Service to Industrial World/7

HIGHLIGHTS / 10

,

Refining Industry Blooms in
Kermanshah Province of Iran / 14

A Survey of the Fundamentals of an Efficient Oil Stock Market in Iran / 17

A Glance over Iran's Drilling Industry / 30



April - May. 2009 - 113-114

# Oil and Iran's Forthcoming Presidential Elections

EDITORIA



he Iranian people are drawing closer to tenth presidential elections. In the post-Islamic Revolution era, the nation has experienced a host of developments in all social, political and economic spheres. During this period of time, election campaigns waged by various candidates have as well undergone certain developments. However, throughout all these years, election campaigns have lacked transparency insofar as the question of oil is concerned.

Overwhelming majority of presidential candidates have failed or refused to elaborate their stances in the face of the nation's oil sector, its strategies and objectives. The reluctance shown by presidential candidates to discuss oil in their election campaigns, may be illustrative of the very fact that although the Iranian oil industry is now over 90 years old, it appears not to have been localized entirely yet.

In Iran, people are critically dependent on oil

revenues. What the nation's economy gains out of sale of crude oil and guarantees people's relative welfare is some kind of economic cronyism that is a result of export of oil and this is exactly the phenomenon that has given way to the development of an economy of a similar nature. The huge gap that resides between global oil prices and crude production cost in the Middle East region and Iran of course, generates a huge income turning the government into a distributor of this income. That, however, does not mean that the oil industry is an inseparable constituent of the nation's overall economic structure. At a time when foreign companies maintained

placed at the disposal of the government. Concurrent with the nationalization of oil industry, the national government seized control over production and export of crude oil and yet national economy was exposed to a bigger share of such an income. However, oil industry remained isolated from the overall economic structure of the country, a definition that suggests localization of oil industry is something beyond nationalization of oil industry which appears not to have been

control over Iran's oil produc-

tion, a portion of this

crony-based income was

materialized to this date.

Without a doubt, oil is the nation's most strategic national asset with a determining influence on almost all affairs of the state. Therefore, oil and its diversified dimensions should be clearly elaborated by any given

presidential candidate during election campaigns.

The people reserve the right to know what posture their favorite candidate maintains in the face of the most strategic asset which belongs to the present and future generations alike. They have the right to know how the government is planning to utilize this national asset. Almost all presidential candidates are believed to have neglected this very important obligation in the past. They have just sufficed to generalities in this regard. Future presidential candidates are expected to change course and disclose their plans concerning oil industry.

A review of the statements and performances of the previous governments concerning oil reveals some kind of guardianship practiced by them on this most strategic capital of the nation. There is no doubt in the honesty and good will of the candidates who once heralded the promising news of distributing oil income among people, however, utterances of this nature by themselves are reflective of the kind of custodianship that still grips oil industry. Whose property is oil? The government or the nation? If oil belongs to the nation-and it does-then the governments that come to power for the main purpose of serving the people should just use

oil to serve the people. Through electing their favorite candidates at the Islamic Consultative Assembly and within the framework of the five year development plans and annual budget bills, the people make it clear how any given government should produce and utilize oil and



what proportion and where oil incomes should be injected into. Any government that authorizes itself to distribute oil and oil revenues the way it likes is in fact acting as people's guardian.

How could a government boast of serving the people and at the same time refuse to allow the representatives of people in the parliament to have a clear picture of how oil industry is operating and where oil revenues are spent? Perhaps it is more advisable for the government to transparently disseminate information concerning oil rather than giving out promising news about distribution of oil revenues.

In many cases in the past, people and even their representatives in the parliament have been denied information about issues to which foreigners and aliens have had full access. There are certain reports and information published in overseas publications on a routine basis which are labeled confidential at home! What does that really mean?

A few years ago, a foreign oil contract expert was invited to deliver a speech in a forum that addressed the issue of oil. He was also scheduled to run a course on oil contracts for the Iranian oil experts. Meantime, the oil ministry had earlier reported of availability of a fresh and revised version of bye-back contracts. In his communications, the above-said foreign expert had requested to have access to a copy of that new contract so that he could reflect the up-todate contents to his Iranian students. The response of the oil industry to the request was "not possible at all". And after sometime, the same instructor revealed that he could have access to a copy of the subject contract through overseas references at a meager price ranging

from USD100 to 500!

Sometimes, even in response to the request of the parliament members, it is claimed that releasing and disseminating the contents of contracts or even placing them at the disposal of parliament members is not to the interest of the country. The question raised here is as to who specifies what is and what is not to the interest of the nation? Are the people needed to just cast their votes in favor of this or that candidate? And are the members of the parliament there to just cast vote of confidence in favor of a cabinet or minister?

During the final days of the reform government's first four year tenure, a letter was signed and released by one hundred prominent academic and scientific figures that contained criticisms, skepticisms and concerns about performance and future plans of the oil ministry. Nobody heeded the letter, rather, many of the signatories of the letter were blamed for having signed such a letter.

Some go further and raise the question of oil Mafia. We do not intend to discover whether or not there resides an oil mafia rather, the very influential factor that gives rise to the idea of a Mafia residing in the oil industry is, without a doubt, lack of transparency. Why should writing and talking about oil industry and criticizing and challenging its performance be prohibited? Should there reside accurate, reasonable and transparent information and planning and in case everybody knows what procedures are available for the implementation of works, then there will be room for no illusions.

What authority other than directly concerned

officials of the oil industry is aware of such procedures as sales, contracts, destination markets and pricing formulas? Pose this question to the cabinet or parliament members and in case there is no response, then those who discuss likely existence of an oil Mafia deserve more attention.

In view of what was discussed, the issue of oil can serve to be the criterion for disclosing accuracy or falsehood of election campaigns and thus, people and the press should obligate presidential candidates to be more elaborate and transparent insofar as oil is concerned.

In progressive democracies, the people closely inspect the party that a candidate represents rather than the candidate himself and his characteristics. Without a doubt, in case a leading and consolidated party fails to introduce the right individual as its candidate, it would be naïve to assume any chance for that given party or its candidate to win. The presidential candidate and the party that introduces him should observe transparency in all areas that have an influential and determining role in the fate and lives of people including oil and energy. In case each candidate's strategies and goals in the area of oil are transparent, all strata of the society, the intellectuals in particular, will have the opportunity to examine and criticize them and in this manner reveal and reflect their ideals. Meantime, the candidates as well will have the opportunity to comply with the demands and desires of the society's elites in which case the community will overwhelmingly vote in favor of the stances and strategies of that candidate.

Issues pertaining to oil and oil industry's

strategies and objectives are so critical that it is rather impossible to assign certain individuals to decide the fate of the industry. Should the community and elites be denied the right to have a share of decision making in the sphere of oil, the opportunity will emerge for certain individuals who have been assigned to handle the task merely because of their positive management performance in the past (and not due to their experience and consistency) to blame overwhelming majority of the people and attribute their own failure to people's demands and expectations. Of course, the opponents of such strategies will in turn claim that they too represent people's views and demands, thus, all acting as custodians of the members of the society in that particular sphere. Such skirmishes will either nullify or slow down the trend of materialization of the strategies and goals of any president elect.

Experience reveals that, in matters of an extraterritorial nature in particular, when objectives and strategies are associated with doubts and ambiguities and executive measures become subject of opposition, there is little or no chance for success.

The esteemed presidential candidates are advised to employ reliable and knowledgeable experts in such a strategic area as oil industry in order to assist them with elaborating and introducing their stances and policies. The people reserve the right to be informed, examine and express themselves in such affairs which have to do with their lives and fate and it is not advisable for any competent and trustworthy candidate to neglect this right of the people.



April - May. 2009 - 113-114

### Fourteenth Oil Exhibition; Under Different Circumstances

ourteenth Oil, Gas and Petrochemical international exhibition will be held at the Tehran International permanent Fairground from April 22<sup>nd</sup> to 25<sup>th</sup> 2009. This exhibition happens every year. The experience has expanded in the light of experiences gained during the past 13 exhibitions.

This exhibition provides the opportunity for all the participating companies to put their abilities on display and familiarizing the participants with each others' achievements. It also provides the opportunity for foreign companies to choose the most suitable Iranian partners.

However, this year's exhibition will be held under a relatively different situation. A massive economic crisis and a widespread recession is spread in most regions in the world. Many companies and especially production companies are on the threshold of bankruptcy and they may not even be able to bear the cost of participating in an exhibition. But there are also many companies who are seriously pursuing new markets and may take the opportunity to participate in such an exhibition.

The experience has shown that when the companies are cornered and hard pressed, the continuation of their existence has a key importance for them. Thus, they may pay much lesser attention to international sanctions against Iran. Also, the governments approving sanctions will have less justification to impose pressure on the companies. Iran's international conditions have

also become more favorable this year and this may also show its reflection on the exhibition.

In the past, most large oil and gas projects were granted as a lump to large foreign companies operating as the general contractor. The said companies mainly provided only the financial requirement and management of the projects. For execution of the work, they were using tens of smaller firms producing equipment and providing services. At present, however, a number of general contractor companies have been established in the country. In the past years, the big oil companies were acting as middleman preventing Iranian companies coming into direct contact with smaller foreign oil service and production companies. But the annual Oil, Gas and Petrochemical exhibition has provided the opportunity for direct and face to face contacts.

In view of its size and extent, the exhibition (alongside having other usages) is also useful for familiarizing different classes of people especially students and university personnel as well as the media with developments taking place in the petroleum industry and can also be educative.

During holding the exhibition, the managers of various companies will also leave their technical shells behind finding the opportunity to have a more comprehensive glance at the oil industry. This can also have positive impact in their profession.

It is hoped that we shall witness the most effective and impressive exhibition this year.



# Oil Industry Leadership or Providing Service to Industrial World

#### Behrouz Beik Alizadeh Oil Market Senior Analyst – Ministry of Petroleum

he 4<sup>th</sup> OPEC Seminar was held in Vienna on March 18<sup>th</sup> and 19<sup>th</sup> 2009. The address by Saudi Minister of Petroleum during this seminar contained some significant points which are considered in this writing.

Pointing that it took several decades for some countries that their oil industry became commercial, Saudi Petroleum Minister concluded that the oil industry has a time-intensive nature and its development demands planning horizons stretching across several years. Furthermore, this would require large amounts of capital. He noted that by 2030, world energy consumption will be increased by fifty percent and fossil fuels will continue to meet 80 percent of energy demand and that crude oil will retain its leading position. In his speech, the Minister also pointed out that despite a drop of oil prices by \$ 100 per barrel resulting from economic crisis and reduction of demand, the efforts behind using alternatives to oil and independence from oil continue unabated, which clouds the future prospects of oil demand. In such an uncertain demand atmosphere, long term incentives for petroleum industry development will be influenced. Inconsistencies and unknowns are not conducive to future investments, because capital-intensive industries require a high financial return and stable prices, as well as clarity of future demand.



He said: Today, Saudi Arabia's leadership is reflected in production of 8 million barrels of oil per day, plus maintaining a spare production capacity of 1.5 to 2 million barrels per day to help stabilize the international oil market in the event of sudden supply shortages or demand spikes. Saudi's oil production capacity will rise to 12.5 million barrels per day by the middle of this year, through implementation of projects valued at \$70 billion. Before wrapping up his address, he pointed to an important issue and said despite the current economic



situation and other challenges facing the energy sector, Saudi Arabia will continue with its long-term planning for oil and gas capacity expansion and related programs to enhance world energy supplies. The country will also remain committed to continue its leadership in exploration and production.

The address delivered by Saudi Minister of Petroleum can lead to a lot of discussion. This talk is delivered at a time when oil prices have dropped by \$100, declining to \$40 per barrel. Anticipations also indicate the continuation of low prices. The fundamental question is that: which incentive have caused Saudi Arabia to quest for capacity expansion at a time when oil prices have sharply declined and its Petroleum Minister clearly admits that current situation does not protect long-term investment trend? In reply, a number of different assumptions can be suggested:

- 1- In Saudi oil planning, economic calculations and in particular the price is not principal determinants. Rather, the strategic goals of Saudi Arabia have a fundamental role in shaping such planning. In other word, if oil prices had a fundamental influence in the Saudi oil investments, the impact of reduction of prices should have been observed in these planning now that the prices have sharply declined. But Saudi Arabia has announced that it will continue with its planning for capacity expansion.
- 2- In an unwritten pact with the industrial world, Saudi Arabia has been committed to quest for the security of oil supply. Even at a time it is anticipated that the impacts of current economic crisis will continue in the foreseeable future, creation of spare oil production capacity help prove this assumption. Ebrahim Al Mohana, adviser to





Saudi Petroleum Minister, announced on April 2<sup>nd</sup> this year that reduction of demand is expected to continue in the industrial countries even after the economic crisis is over. This means that Saudi Arabia is well aware that demand will continue to be weak in the middle-term and the near future. Despite this and whilst it is aware that the spare capacity it would create will have no customer, it is continuing its endeavor for capacity expansion. 3-Under current situation that world economy is stricken by its worst crisis after the Second World War, it appears as though Saudi Arabia has been committed not to permit the oil prices return to their previous levels. The Saudi presence at G-20 Summit held in London on April 2<sup>nd</sup> was undoubtedly related to this country's role in securing cheap oil for the industrial world. In the last OPEC ministerial meeting which was held on March 15th 2009, Saudi Arabia opposed further production cut being carried out. And OPEC ended this meeting without changing its production ceiling. Saudi Arabia is aware that by creating high spare capacity, a ceiling will be created for oil prices which will not allow the prices go beyond that ceiling.

- 4- Saudi Arabia is well aware that it could play a more important role internationally if it gets larger share of world oil supply. In fact, Saudi Arabia takes advantage of its natural resources and relative advantage it enjoys in this respect in order to stabilize its international position. The latent message of Saudi Petroleum Minister to the industrial world is that Saudi Arabia is a useful member of international community and can have a place in international developments. Also, the country's role in world equations is without rival and can not be eliminated.
- 5-The existence of spare oil production capacity means that any interruption in production will easily be compensated. In fact, in recent years the

- fear for shortage of oil supply due to low spare production capacity was the most important factor causing the USA to limit its military involvements in the Middle East to one of the region's oil producing country, i.e. Iraq. Therefore, the irregular increase in oil production capacity will increase the region's vulnerability and will be a threat to the security of the region. And it will be regarded as a green light showing that military interference in other countries will not cause serious interruption in the crude oil supply.
- 6-Based on the analysis presented, the concept of Saudi leadership's role in the oil industry must be again defined. It seems Saudi leadership in the world of oil is not related to economic issues. In this leadership, uneconomic signals are transmitted. The reaction to prices is uneconomic. Institutional interests are not taken into consideration. And decisions are taken within the political frameworks. In other words, Saudi Arabia's behavior can be considered as nearer to serving the industrial world rather than the leadership of world oil industry.
- 7- At the current oil prices (less than \$50), most investments in the energy sector has become uneconomical. The findings of the study conducted a while ago by the Cambridge Energy Research Associates (CERA) indicates that making oil investments at these prices is still economical only in some oil fields in China and Libya and in the upstream oil sectors in Saudi Arabia and some other oil producing countries in the Persian Gulf region. In this situation, the industrial world is worried about the future energy supply after removal of world economic crisis. And Saudi Arabia is probably under pressure by the industrial countries to make more investments in its oil fields. The remarks made by Mr. Al Naimi can be regarded as a reaction to these pressures.



# Crescent has not offered higher gas price: NIOC MD

Responding to the claim made by managing director of Crescent Petroleum Company that his company had conceded to pay a higher price for purchasing Iran's gas, managing director of NIOC Seifollah Jashnsaz said: "No talks have been held with Crescent about the rise in price of gas".

According to the news agency of Iran's oil ministry, Jashnsaz went on to insist that: "No letter has been received from Crescent about their willingness to pay a higher price. No request for talks with NIOC has been put forth by Crescent. These are all claims made when they (Crescent



officials) talk to the press".

The NIOC MD said: "The gas deal has been the subject of discussion between NIOC and Crescent since 2001. In addition to the price, there are issues in the deal like 'Crescent's commitment prior to executing the contract', which will have to be mutually agreed on".

He also emphasized that before finalizing the price of gas, the two sides have to settle the subject of 'Bank guarantee and gas delivery point'.

Jashansaz also rejected as 'untrue' the claim that Crescent was offering Iran the highest price of gas in the Persian Gulf region.

In related news, managing director of NIGEC Reza Kassaie Zadeh also rejected comments made by Crescent MD Majid Hamid Jafar in his press conference and said: "Despite all the claims made, no request for a meeting with NIGEC has been received from Crescent. Besides, our letter about the faults in that gas deal, sent to them (Crescent) four months ago, has not been replied to".

# JV signed between NIGC and Bayerngas

A Joint Venture agreement has been signed between National Iranian Gas Company (NIGC) and the German Bayerngas Company, says director of Gas Dispatching Center of NIGC Hassan Montazer-Torbati.

According to ISNA, Torbati added: "The JV was signed on the sidelines of the 2-day meeting of marketing committee of International Gas Union (IGU) that was held last week in Tehran. The center piece of the JV is the fabrication of facilities needed in Compressed Natural Gas (CNG) and other gas downstream industries".



Saying that Bayerngas is interested in buying Iran's natural gas in long-term contracts,
Torbati explained: "Bayerngas is one of the German gas companies which is active in purchase/sale and transmission of natural gas. Bayerngas intends to open a representative office in Iran".

The 2-day meeting of marketing committee of IGU was held during 20-21 of this April in Tehran. Foreign members of the committee had come from Germany, Norway, Holland, Greece, Czech, Croatia, Finland and Switzerland.

April - May. 2009 - 113-114

#### Iran, Turkmenistan discuss gas issues

Managing director of National Iranian Gas Export Company (NIGEC) Reza Kassaie Zadeh said setting a specific pricing formula for the Turkmen gas export to Iran, joint investment by the two countries in the development of the Turkmen gas field of Yulatan and probably Iran's claim of damage caused by the cutback of Turkmen gas supply to Iran in winter 2007,

were the main subjects of discussion in the ongoing 2-day meeting of Iranian and Turkmen gas officials.

According to ISNA, Kassaie Zadeh went on to explain: "The previous 6-month gas contract between Iran and Turkmen was on fixed price basis and will expire on 1st July this year. Given that prices of oil and gas have fallen around the world, a new pricing formula has to be found in this

round of talks".

The NIGEC MD also said: "In line with a 25-year agreement (and its addendum) between Iran and Turkmenistan,

we are supposed to receive some 14 billion cubic meters (bcm) of gas annually from Turkmenistan. So far, however, no more than 8 bcm/y of Turkmen gas has been supplied to us. This will be brought up in this round of talks with Turkmen officials".

#### NIOC has to make a decision on Crescent deal: Majid Jafar

In 2008, my company conceded to pay a higher price for importing Iran's gas, says managing director of the UAE based 'Crescent Petroleum Company' Majid Hamid Jafar, reported ISNA.

Addressing a press conference in Tehran yesterday, Majid Jafar went on to add: "There are few choices that NIOC can select from on what to do with the gas deal it has with Crescent. Either the contract can be put into practice as it is, or some talks should be held for changing the price in it (as called for by NIOC). It could even be sent to arbitration before being put into practice, or it can be

called impractical".

According to Majid Jafar, Crescent has put up with international pressures all these years, but has been waiting patiently for Iran to come up with its final decision on the gas contract, adding: "Our customers are putting great pressure on us and our patience has its limit as well".

Everyday of delay in this contract amounts to \$ 1 Mln loss for NIOC, commented the Crescent boss.

Stressing that the price offered by Crescent to NIOC for the gas is the highest in the Persian Gulf region, Majid Jafar said: "Qatar's gas is being imported into the UAE, but Crescent has no deal with Qatar because it has built the needed pipeline and other facilities for

receiving gas from Iran. Despite the 40-month long delay in delivering the contractual gas to us, we have so far remained patient with Iran".

Majid Jafar also disclosed that his company had even proposed to develop one phase of Iran's South Pars gas field, or any other Persian Gulf gas field of Iran, in a Buy-Back contract, but had received no clear response, adding: "In the interim, we invested \$600 Mln in developing two fields in the Kurdistan region of Iraq. Presently those fields are capable of producing one billion cubic meters (bcm) of gas annually, which will reach 3 bcm in the future. In fact, we are now prepared to export the gas liquids of the said gas fields to Iran".

#### Iran-Armenia gas pipeline, in service early May

Based on the outcome of the joint meeting of Iranian and Armenian officials, there are no operational obstacles left on the path of exporting Iran's gas to Armenia, and hopefully gas will be injected into Iran-Armenia gas pipeline by the first week of coming May, says director of engineering dept. of National Iranian Gas Export Company (NIGEC) Rasoul Salmani.

According to the news agency of Iran's oil ministry, Salmani



added that: "Gas will start getting exported to Armenia first at 1.1 mcm/d rate and will be gradually raised to reach 3.3 mcm/d, as

requested by Armenia. The gas volume will be raised to 9 mcm/d later and, in fact, the pipeline could carry the entire gas needs of Armenia".

Concerning Iran's interest in buying the gas of second phase of 'Shahdeniz' gas field of Azerbaijan, Salmani explained: "Azeri officials are currently busy marketing the 'Shahdeniz' gas in Asian and European markets and NIGEC is another buyer amongst buyers. Given the dealings we have with Azerbaijan, we hope to reach an accord with them on that gas issue as well".

# Iran builds up gasoline stocks in offshore tankers

Iran is stockpiling up to 7.7mn barrels of gasoline on 12 oil tankers anchored off Kharg Island in the Persian Gulf, Reuters reported on 7 April.

An unnamed National Iranian Oil Company (NIOC) official reportedly said: "We will continue to store gasoline to make sure we are always in a comfortable position. We want to make sure we have no supply shortages." Tehran had decided to increase gasoline imports by up to 25% for the months of May



and June in order to cover an anticipated rise in demand in the run up to presidential elections, due to take place on 12 June.

Iran has lined up gasoline imports of around 128,000 b/d in April, with imports expected to rise as high as 165,000 b/d over the following two months. The report quoted an Asian gasoline trader as saying: "They are in the market to buy, and they are looking to buy a lot, it could be up to 20 cargoes a month, maybe 19." India's Reliance is expected to provide most of the additional supplies.

#### Iran gives Shell/ Repsol deadline on LNG project

Iran has given Royal Dutch Shell and Repsol until May 20 to clarify their involvement in a major gas project in the Persian Gulf, a senior oil official was quoted as saying on Monday.

"If subsequent to the expiry of the deadline these companies do not make clear their involvement in the Persian LNG project, talks will begin directly with Chinese (companies)," Seifollah Jashnsaz, managing director of the National Iranian Oil Company



(NIOC), told the ISNA news agency.

"Presently not much remains to the end of this deadline," he said, without giving further detail. A Repsol spokeswoman declined to comment on the ISNA report.

# Energy intensity in Iran is much higher than global standard: Torkan

Iran's deputy oil minister for planning Akbar Torkan said one reason for wasteful use of energy in Iran is because it is cheap, adding: "Efficiency in Iran's power plants is about 35%, but its as high as 54% in many countries that use combined cycle power plants".

According to the Fars news agency, Torkan went on to add that: "Iran's refineries use 5% of their feed as fuel while this ratio is 1 or 2% around the world. Energy used by our

industries is on average twice the global standard".

Torkan also said: "By dividing the total fuel used in the industrial world by the total number of their vehicles, it will be seen that every European car uses an average of 2 liters of gasoline per day and every American car uses 4 liters. In Iran every car gets an average of 11 liters of gasoline per day".

He said Iran's energy consumption in the household sector was twice the energy used by a cold country like Sweden.

Torkan defined 'Energy Intensity' as the amount of energy used for producing \$ 1,000 worth of goods, adding: "In some countries 1 or 2 barrels of oil is used to produce \$ 1,000 worth of goods and a country that is using 3 barrels for the same output is generally regarded as inefficient. In Iran, however, about 13.6 barrels of oil are used to produce \$ 1,000 worth of goods".

Iran's deputy oil minister criticized the flaring of associated gases in Iran, saying: "Some 43 mcm/d of associated gases are flared in Iran, while Turkey's entire gas consumption is about 34 mcm/d".



April - May. 2009 - 113-114

### Refining Industry Blooms in Kermanshah Province of Iran

INTERVIEW



ran enjoys rich potentials for the export of oil products along its western orders and for that matter; the

Iranian oil ministry has plans underway to develop refining industry in the western provinces of the country. The development work is intended to secure local need in oil products and provide the opportunity for export of such products to the neighboring states. Anahita refinery is expected to go into operation in Iran's western Kermanshah province in the near future. Staffed by a group of talented and expert men and women who specialize in this area of indus-

try, Anahita Oil Refinery is believed to be one of the most successful projects approved during the Iranian president's provincial visits. Former operations manager of Arak refinery and managing director of Shiraz refinery, Shahrokh Khosravani is in charge of the construction of Anahita project. He was appointed as managing director of Anahita refinery project in September 2007.

Our correspondent conducted an interview with Shahrokh Khosravani recently and raised certain questions concerning Anahita refinery project's construction process.



#### Why are you building Anahita refinery in Kermanshah province?

Construction of this refinery was approved in the course of the first round of president's provincial visits. Anahita refinery is expected to meet requirements of the people of Kermanshah and the neighboring provinces in oil products for a period leading to 2025. The project is also intended to provide feed for LAB petrochemical unit and

supply furnace oil to Bistoun power plant. As soon as this project is completed, the 30 thousand barrel capacity refinery currently operating in Kermanshah is scheduled to be dismantled. The measure is believed to have positive effects on Kermanshah's living environment.

# Who are the shareholders of Anahita refinery?

The National Iranian Oil Refining and Distribution Company (NIORDC) holds 20% of the shares, Social Security Organization of Iran holds 55% of shares and the State Pension Fund holds 25% of shares. In accordance with a letter of partnership, NIORDC is in charge of the construction of Anahita project, ownership of which is scheduled to be transferred to shareholders as soon as the project has gone into operation. In fact, Anahita is an independent refinery company which operates-during the construction period-in coordination with NIORDC.

### What units comprise the refinery in terms of technical specifications?

The contracts for the construction of all under-license units of the refinery including hydro-cracker, CCR, hydrogen refining, kerosene and diesel as well as hydrogen and sulfur manufacturing units have either been signed with reputable licensors or are under way. The production capacity of this refinery is 150 thousand barrels per day. Simultaneously, we have signed contracts with Italy's APS and Iran's Sazeh Iran Companies as design consultants. The refining pattern has been finalized and approved by NIORDC. Unit designs comply with world-class standards and oil products are scheduled to be produced in compliance with Euro 5 standard.

### What products are you scheduled to produce in this refinery?

Liquefied gas, premium gasoline, regular gasoline, kerosene, jet fuel, tar, solid sulfur and furnace oil constitute our products. We plan to produce a daily 320 tons of liquefied gas, 7 million liters of gasoline, 10.5

million liters of kerosene, gas oil and jet fuel, 10 thousand barrels of asphalt, 300 tons of sulfur, and 4.5 million liters of furnace oil. A portion of these products is expected to provide the feed for Kermanshah's LAB petrochemical complex while part of our products will be exported to Iraq.

#### Iraq is an oil rich country and huge investments have been made in her oil refining industry. Do you not expect to face serious challenges insofar as marketing of Anahita refinery's products is concerned?

We have already conducted studies addressing future needs of the Iraqi market. Anahita refinery is basically intended to meet Kermanshah province's fuel requirements, however, since Iraq's refining infrastructures have been destroyed, currently Iran secures part of Iraq's fuel requirements. When put into operation, Anahita refinery is believed to gain access to the Iraqi market in a short period of time. Currently, Iraqis place huge orders for furnace oil, kerosene and gas oil. These products are supplied to Iraq via Kermanshah borders. Our assessments indicate that Iraq is a rewarding market for our oil products.

# Is the project financed by a consortium or a single financial source is expected to finance it?

According to our estimates, a financial package of Euro2 billion should be injected into this project of which 15% is stipulated to be covered by the shareholders and the remaining portion through overseas financial sources and financing. Negotiations are underway and we hope to finalize the issue of financing of the project soon.

#### This is a fact that economic crisis worldwide has struck oil projects as well. How do you plan to encounter likely impediments?

In the absence of effective policies, economic recession could impede implementation of projects of this nature; however, our refining patterns comply with expert studies. We will cut our imports of oil products



as soon as this project has been put into operation. This is a national priority, a project which, in addition to providing for additional fuel supplies is also expected to produce jobs for the local people and assist us with the promotion and development of our technical and industrial infrastructures. We hope the project will proceed in accordance with the time table, after all, it benefits from firm support of the government, provincial officials and shareholders. Our performance so far is satisfactory and we have started construction work.

# What operational measures have been drawn up for the construction of this project?

We have purchased 570 hectares of land where the refinery shall be built of which 500 hectares will be allocated to the refinery site and 70 hectares to communication, distribution and piping systems. We have already obtained all necessary permissions. Water and electricity are supplied to the site. We have completed soil mechanics, topographical and geotechnical operations and leveled and fenced the site area. As regards design of the refinery, we have signed contracts with Sazeh Iran and Italy's APS companies. The contracts for the under-license units have been signed as well.

### How do you plan to provide feed for the refinery?

The refinery's feed shall be provided mainly from Naft Shahr region i.e. 12500 barrels per day and the remaining portion which is 25 thousand barrels will come from local oil fields in Kermanshah such as Maleh Kooh and Serkan fields. When constructing a refinery, factors other than feed such as consumption market, labor market, development of industrial infrastructures in the region as well as other macro issues are also needed to be taken into due consideration. Kermanshah province is apparently far away from sources of feed supply. Oil reserves in Iran are primarily located in the southern regions of the country. In case all oil installations are built close to supply

sources, then the question of transportation of oil products to other regions should be addressed, thus, refineries can be set-up close to consumption centers in order to cut transportation cost.

# Will the shares of the refinery be available for transaction at the stock exchange market?

We have not come to any conclusions in this regard yet. This is a decision that should be made by the shareholders themselves. Perhaps we should expect any conclusions in this regard as soon as the project goes into operation.

### Is the construction work proceeding in compliance with the time table?

According to our time table, the project is expected to be commissioned and go into operation in late 2012. We are so far satisfied with the progress of works. In the second quarter of 2009, the EPC contract package shall be awarded to qualified contractors. The executive stage of the project is expected to be commenced in late 2009 subject to availability of financial resources and the project shall take 40 months to complete.

#### Do the local and regional industries enjoy the required capacity to adapt themselves with the requirements of the refinery? Do you expect oil refining industry to be localized here?

A small refinery has been operating in Kermanshah for almost 90 years now and for that matter, local and regional industries do not approach oil refining industry as an alien. Meantime, LAB petrochemical, ammonia urea and petrochemical complexes are simultaneously under construction in this region. Supply of water and electricity and grading operations have been awarded to local contractors and just a portion of the EPC contract shall be awarded to foreign contractors. The refinery site is located adjacent to the Industrial Town of Kermanshah which shall facilitate interaction among various industries and the refining industry.













# A Survey of the Fundamentals of an Efficient Oil Stock Market in Iran

Hojjatollah Ghanimifard1-Hossein Moghaddam2 Source: Energy Economics Surveys Volume 3. Number 9, Summer 2007

#### **Abstract**



ran as one of the major oil exporting countries generates considerable oil revenues. While the country is

heavily dependent on oil revenues, this source of income has proved to be unreliable due to oil price volatility. Therefore, any mitigation in such volatility can lead to the country's more facilitated economic development. It is clear that appropriate management and strong performance of oil stock market in Iran can contribute to the country's

more influential role in the global markets. To this end, such measures as developing standards for oil products swap, devising a supervisory mechanism for oil trade and efficient management of oil stock markets have proved to be helpful. This article attempts to justify the importance of establishing an oil stock market in Iran and explains its features and fundamentals. Considering the officials' willingness to establish an oil stock market in Iran, the results of this study could be helpful to achieve a more successful stock market in Iran.

Keywords: Oil stock market, crude oil, fundamentals, international oil markets, crude oil trade.



#### Introduction

Islamic Republic of Iran is one of the major oil producing countries in the world and is heavily dependent on the oil revenues which are to some extent volatile. Thus, the volatility of country's main source of revenue has led to uncertainties in Iran's economy.

A glance at Iran's domestic market of oil reveals the shortcomings that preclude favorable development of the country's economy. Existing spread between the prices of oil products within and outside Iranian borders, existing parallel markets, unreal growth rate of demand, transient fluctuation of oil products prices, rent caused by the price spread and incompetent oil market are among the most crucial aftermaths of current conditions. Therefore, materializing more transparency in the market and suppressing current monopoly by such markets as ICE and NYMEX are the best ways to cope with inefficiency in Iranian oil market.

#### **International Oil Stock Markets**

Oil, like any other commodity, is traded in markets where such factors as supply and demand and pricing mechanism are playing a decisive role. In the meantime, crude oil providing the production process with needed raw material and energy carrier has given rise to the formation of today's industrial civilization. Therefore, various complicated systems, regulations and mechanisms have been developed to make oil trade viable worldwide. Banks; public, private and sometimes international financial institutes; major international oil companies; government oil and gas companies; refiners; dealers; major stock markets; forwarding companies and many other factors comprise such mechanisms where numerous transactions are done at regional and international levels.

The supplier and customer's presence and agreement upon the price is a prerequisite to any transaction

in the marketplace. Such a prerequisite is regarded one of the most crucial factors dealing with international oil trade. Different factors contribute to rapid fluctuation of oil prices in stock markets. Such factors that have gained leverage through ages and entered oil industry through its gradual growth are, in turn, affected by other



natural, technical, financial, economical and political determinants. Price of oil, as a result of interaction between aforementioned factors, reflects the situation in the market.

# **Characteristics of Crude Oil Markets**

Since 20 years ago, a large portion of trades in the marketplace was contributed by crude oil. In the meantime, crude oil markets have evolved from a simple physical market to complicated one where crude oil is traded in the framework of complex financial formula.

In the past, oil traders were sole players of oil markets while at the present time a large number of investors who specialize in different industries like banks, fund management organizations and brokers are gaining huge interests in oil markets due to highly fluctuated oil prices. Oil is considered one of the most complex commodities in the world since the price any type of crude oil and oil products is determined considering constant developments of supply and demand at regional and international level. Various interrelated markets following its own specific rules have formed global oil market.

Development of oil transactions have mainly been under the influence of structural changes in global oil market. Before 1973, crude oil transactions in global market were not so customary since the transactions were not so widespread. All aspects of oil industry ranging from exploration and production to refining and distribution were in the hands of major oil companies.

Oil transactions were considered a marginal and limited activity for most big oil companies to maintain balance between supply and demand for crude oil. In other words, major oil companies used to manage all aspects of oil markets; therefore, they did not have any interests in the markets outside their domain. Such being the case, markets outside the realm of major oil companies neither supply them with crude oil nor could play a decisive role in existing pricing mechanisms. Two factors have mainly contributed to rapid developments of oil transactions: a tide of nationalization in the Middle East oil upstream sector in 1970's and highly fluctuated oil prices. The latter was to a great measure affected by the former. It is worth mentioning that a general tendency in the global economy towards the management of reducing prices and competitive markets, particularly foreign exchange markets also played a decisive part for this cause. With nationalized oil industries, oil companies had to buy their needed crude oil directly

from oil producing countries. In this way major oil companies entered into oil markets and physical trade of oil was expanded rapidly in the markets. As a consequence, global oil market was able to play a decisive role in determining crude oil prices. Specific characteristics of crude oil are in fact the factors that influence the markets. Transport, refining, storage, demand, supply and strategic petroleum reserves are among the most crucial factors influencing the fundamentals of crude oil markets and mechanism of transactions.

# **Emergence of Oil Stock Market** in Iran

Establishment of an oil stock market in Iran is a topic that has aroused many pros and cons. It is obvious that an international oil stock market can bring about financial and economic opportunities where the development of oil industry as the cornerstone of the country's economy can be materialized.

# Goals pursued by Establishment of Oil Stock Market in Iran

Iran has advantages over other OPEC member states such as strategic location, huge oil reserves, high production rate, ready access to international markets and adjacency with landlocked countries. Iran's Ministry of Petroleum is planning to establish an oil stock market in Iran that is thought to be beneficial to the country from different aspects: 1. Goals pursued by a physical market and 2. Goals pursued by a paper market.

# Goals Pursued by the Physical Oil Market in Iran

Some of the goals pursued by physical oil market are as follows:

1. Improving trade framework of petrochemicals,

oil products and gas products in oil industry.

- 2. Assessing the possibility of absorbing foreign investors in different parts of oil chain value like transport, marketing, derivatives markets and oil products trade.
- Supplying petrochemical products as the first experience in the world.
- 4. Consolidating oil equipment stock market in Iran.
- 5. Improving transport and storage systems and strengthening the country's potency in energy sector.
- 6. Obliterating monopoly and introducing a transparent pricing mechanism where the producers and end customers can benefit from the price differential caused by deregulated markets and real prices respectively.

# Goals Pursued by the Paper Oil Market in Iran

Here are some of the goals pursued by paper oil market:

- 1. Bigger role given to private sector in oil trade.
- 2. Possibility of doing trade round the clock due to Iran's unique geographical location and time zone.
- 3. Strengthening national currency due to increased quantity of transactions.
- 4. Reducing the risk of oil price fluctuations by means of derivative markets.
- Great changes to the country's trade system, especially those in close relation with oil stock market.
- 6. Iran's presence in the world's leading stock markets using advanced electronic telecommunication means.
- 7. Iran's more active role in oil trade in the Middle East.
- 8. Considering huge oil and gas reserves, Iran will be able to become a source for oil pricing.
- Improving the quality of crude and oil products transactions in tandem with other international transactions.

# Different Phases of Establishing a Stock Market in Iran

Establishment of an oil stock market in Iran is of high importance since considering the international nature of the market; standards regarding specifications of traded oil have to be observed. Structure and organization of paper oil market including different derivative means is also of great importance. In order to establish unprecedented oil stock market in Iran to rival with such well settled down such oil stock markets as ICE and NYMEX, some specific features should be taken into consideration:

- -Being a novice market
- Domestic and international challenges
- Costumers initial distrust
- Lack of established mechanism to deal with foreigners
- Existing rivals in the region
- Dual pricing mechanism for some products
- Inefficient banking system, insurance companies and credit institutes
  - -Legal restrictions

Considering all abovementioned considerations, it should be realized that great diligence and care should be taken in order to cope with exiting challenges to establish an oil stock market in Iran. Different phases of establishing an oil stock market in Iran are summarized as follows:

First phase: Creating a general system to trade limited number of products considering the country's limitations and circumstances. Second phase: trading crude oil with the CIS Third phase: Expanding transactions in terms of quantity and quality (derivatives) and attempt to supply the region's oil through closer cooperation with the Middle East members of OPEC.

# Design and Implementation of Oil Stock Market in Iran

At the beginning, two points regarding the design

and implementation of oil stock market in Iran should be taken into consideration:

Firstly, knowledgeable local and foreign experts with acceptable experience of oil stock markets should be employed. Sondly, bureaucracy obstacles should be removed. If the aforementioned conditions are met,

Devising oil stock market mechanisms to do physical and paper transactions.

#### Advantages of Iranian Oil Stock Market

1. Iranian oil stock market, if successful, can give rise to a









the stock market can start from in- cash trades of some oil products and then evolve to paper transactions. Initial standardization of commodities ratified by international institutes and developing legal mechanisms in line with international criteria are among the measures should be taken with care and caution to materialize success in the global markets. At its best, the project can be implemented in three phases:

- 1. Trading Registry and publicizing it
- 2. Developing the standards, agreements and mechanisms to do in-cash transactions of some products in Iranian stock market.

transparent and improved economy for Iran since different sectors like finance, banks, insurance, customs, commerce, transport, IT, legislation and industry will be affected by the market. The oil stock market can disclose its weak points and facilitate its improvement. This can ease the entrance of the country into the global markets leading to the absorption of foreign investments and access to advanced technology needed by oil industry.

2. Through trading oil and gas, the stock market can provide the country with more value added leading to higher GDP. This can consolidate Iran's strategic

position in the region and the world. Any success gained by Iranian oil stock market can best serve as a facilitator of a more transparent and efficient economy.

- 3. Transactions done in Iranian oil stock market in the form of barter can also attract the attention of developing countries. Most of the countries are pressed for currency stock, especially dollars. Stock market will let them do their transactions in the form of barter by means of such facilities as computers and swaps. In this way, developing countries can swap their products with crude oil and minimize the currency exchange costs and risks caused by exchange rate fluctuations. Venezuela is among the countries that has put this into practice and have signed several swap agreements with other developing countries like Cuba'<sup>3</sup>.
- 4. Since there is a rough competition in international markets, when Iranian oil stock market enters into international trade, Iranian companies are forced to reduce their costs by improving their production process and management systems. Other sectors, then, will have to follow suit leading to the countries readiness to be a part of world trade.
- 5. One of the main goals of the stock market is reducing risks of oil trade. Oil prices affected by many factors are very instable which, considering the share of oil export in the government income, makes the management of the country's economy very difficult. In order to cope with this problem, futures markets cover the risk of oil prices by means of derivatives. Oil stock market in Iran can set the stage for minimizing the negative impacts of oil price fluctuations in the global markets and it can also give rise to more reasonable prices of oil products using market mechanisms. By recovering the potentials of CIS and Caspian region countries to form a re-

gional energy market where the Persian Gulf and even OPEC benchmark crude prices are set, this stock market will be able to compete with other benchmark pricing mechanisms like the North Sea and WTI.

There are other advantages and benefits of establish-





ing an oil stock market in Iran as follows:

- Establishing a regional energy market
- Constant communicating the trade trends of Iranian crude and oil products
- Gaining access to technologies and software used by oil stock markets and training needed experts
- Improving other sectors such as tourism, commerce and banking
- Encouraging the Persian Gulf countries to concentrate on oil trade and transactions in the region
- Expanding the country's international interaction with other countries and IOCs

# Challenges to the Establishment of Oil Stock Market in Iran

Entering into international trade of oil, gas and petrochemicals can introduce some challenges to Iran's economy. Such challenges emerge as the country's financial, banking, insurance, customs and commercial infrastructures are not prepared to deal with international trade. It is not only the Ministry of Petroleum that should prepare itself but other organizations and institutes should move in line with the international trends. Iranian oil stock market will otherwise face failure at the first step.

- 1. Misunderstanding between policy makers and Iranian stock market officials: It should be admitted that one of the biggest obstacles to this end is that a decision has not been made definitely on the way that the market should start its activities and the scope of its duties. Some experts and officials are advocating physical markets while others are emphasizing the paper ones.
- 2. In oil stock markets, crude oil must be traded without any limitations on the destination however export of Iranian crude oil in the would-be stock market will face some limitations on the destination. Moreover, oil stock markets require unlimited production while Iran's oil production is subject to the OPEC quota system. Besides, all leading oil stock markets like New York, London, Singapore and Tokyo are located in oil consuming countries. Therefore, establishment of an oil stock market in Iran will face serious challenges since the consumers refrain from trading their needed oil in oil producing countries, especially Iran.
- 3. Some observers are concerned that the establishment of Iranian oil stock market weakening physical oil markets and strengthening paper markets would undermine the strength of OPEC. In oil stock mar-

kets, crude oil prices are determined by the market and oil producing countries have no control over the prices. Observers believe that under current conditions where OPEC has gained control over the prices and markets to some extent, establishment of Iranian oil stock market is not beneficial to oil producing countries because oil market conditions are uncertain in coming years.

4. If Iranian oil stock market follows the market modes of the USA and Britain, it will conflict with Islamic rules. And Islamic countries as main players will not trade in this framework.

Therefore, two ways are proposed in order to devise an oil stock market: 1. Modifying futures mechanisms in the world. That is, the oil is physically delivered and the futures contract is defined in the framework of conveyance agreements. 2. Futures contracts are modified based on Islamic rules and in the framework of forward mechanisms.

It is notable that aforementioned modifications will cause fundamental differences between Iranian oil stock markets and international markets such as New York and London. This can undermine the success of Iranian oil stock market.

Despite existing problems and challenges, the outlook of Iranian oil stock market is bright if the following challenges are recognized and dealt with diligently:

- Lack of rules and regulations, especially financial regulations, for commodity stock markets
- Lack of financial institutions
- Lack of economic, technical and technological infrastructures like insurance policies, guarantees and terms of delivery to the customers
- Inefficient c-commerce infrastructure in Iran
- Lack of competition in oil, gas and petrochemicals industry due to the government ownership
- Insufficient energy markets expertise

- Problems of utilizing international credit cards
- Regulations and restrictions of foreign currencies and exports
- Existing traditional trade and bureaucratic nature of economy of the country

The importance of oil, gas and other energy carriers has caused the increasing expansion of oil stock markets worldwide. This has encouraged energy producing countries to interact with such markets increasingly. At the present time, the Persian Gulf member states of OPEC have not ventured to this end however in coming years a NYMEX branch will inaugurated in Dubai and some other form of oil stock market is planned to be established in CIS in near future.

#### Fundamental Factors Contributing the Success of Oil Stock Market in Iran

Strategic importance of oil as the most political commodity in the world has brought about its parlous and dramatic price volatility. Therefore, the global oil markets were established with the aim of minimizing the risk of price fluctuations and preparing a convenient bed for oil pricing and trade. A question arises here that why such stock markets have been successful and how Iranian oil stock market can follow suit. Fundamental factors contributing the success of oil stock market in Iran are:

- 1. Estimation
- Fast and Facilitated transactions (Liquidity)
- 3. Infrastructures
- 4. Geographical coverage
- Diversity of transaction instruments and their flexibility

#### 1. Estimation

Risk is an inextricable part of any economic activity.

Risk is defined as any change in response to the forecasts or standard deviation. Risk is not possible to be eradicated completely but it can be managed. Oil stock markets can minimize such risks since oil price volatility can affect oil producing countries' revenues, oil consuming countries' costs and refiners' margins.

Today, enterprise management is considered as part of risk management. In enterprise management efficient management of risks is regarded instead of avoiding them. In order to cope with risks, following approaches are recommended:

1. Avoiding risks: the simplest way to cope with risks seems to be avoiding them. A refiner who is in need of crude oil is able to store the needed crude oil through extensive investment to get rid of concerns in this regard. This will clearly expose the refiner to another risk that is the reducing crude oil prices. If crude oil prices fall, the refiner will have to bear heavy losses due to the tough competition with other refiners who can buy crude oil at lower prices. From economic point of view, this strategy is effective when the refiner is certain that firstly, crude oil prices are on the rise and secondly, the growth of prices will cover the storage capital costs.

The refiner can accept the risks as an alternative. It means that the refiner can keep obtaining the needed feedstock relying on jus-in time principle. In this way, however, the refiner is exposed to the risks of unexpected developments of crude oil prices.

- 2. Making use of risks in the speculation process: in the hope of higher profits the refiner can minimize the predictable risks by means of optimizing its portfolio. The refiner may incur great losses as well. Such strategy is also called speculation.
- 3. Risks diversification: The strategy of risk diversification is part of portfolio management where the risk manager participates in the transaction of different

commodities to first, diversify the risk of volatile prices and second, offset the negative impacts of volatile prices of different commodities.

4. Risk coverage: risk coverage does not translate to avoiding risks but it means that the risk manager deliberately bears a risk which has a negative correlation

objectives pursued through risk management. On the other hand, in all stock market halls, the customers are in direct contact with the stock brokers that facilitates and accelerates the transactions and contributes the transparency of prices in the market. It should be admitted that the best and most crucial feature of the sock









with the other one. Negative correlation means that two risks can offset each other. For example, when a refiner is at the risk of increasing crude oil prices it should hedge itself by means of the risk of falling prices. Therefore, the refiner can hedge itself efficiently. Such transactions are viable in the framework of futures markets.

The role of risk manager in selecting the to abide be abovementioned approaches is of the greatest importions as the tance. The selection is generally made based on the situation of the enterprise and the market, the attitude of the enterprise managers towards the risks and their NYMEX.

markets is the transparency of prices.

Oil stock markets provide all traders with sufficient guarantee to cover all pertinent risks. Thus, profitable trade is guaranteed for beneficiaries in such markets. In order to maintain the good faith in transactions, all stock markets are bond to some rules and regulations and their officials regularly attempt to abide by such rules. For example, such organizations as the Market Surveillance, the Financial Surveillance, and the Trade Surveillance are responsible for the enforcement of rules and regulations in the NYMEX.



# 2. Fast and Facilitated transactions (Liquidity)

One of the most important features of international oil markets is the extent of speed and ease of transactions done. That is, all traders should be able to trade with ease at any time. In other words, buyer or buyers should be always around the market whenever the sellers wish to sell their commodities. This causes the transactions to grow considerably in terms of speed and quantity. Under such conditions, market is characterized as having liquidity. If the liquidity decreases in the market, development of prices will face a stall. Therefore, in order to measure liquidity of the market such factors as buy-sell spread and the volume of traded commodities should be taken into consideration. If the buysell spread is high and the volume of traded commodities is low the liquidity of the market is low and vice versa. The success of international oil stock markets is mainly dependent on this principle and government, private sector and legislation bodies attempt to increase the liquidity in the markets as much as possible so that all parties can secure their interests. It is notable that the prosperity of stock markets will result in economic prosperity of the countries.

Liquidity is one of the unique characteristics of the markets meaning that the customers are always busy with trading in the market. In fact, in this way the investor can take the best opportunity to secure his interests.

#### 3. Infrastructures

Although the stock market in Iran like other developing countries is in transitional phase and is experiencing volatility, the fact is that besides such internal factors as measures and plans made by Iranian stock market officials, other external factors like cash injection, foreign currency income, privatization, relative improvement of taxation system, relative improvement of the

country's economy, absorption of foreign investors, reduction of profitability of other economic sectors, interest rates of banks, regional and international developments and so on are influential in the growth and development of the stock market in Iran. To reduce the challenges and bottlenecks, such measures as encouraging people and investors to participate, using different financial instruments, introducing more transparent and accurate assessment of companies' value, reinforcing market regulatory system, revealing internal investments, analyzing raw data and efficient communication with investors should be taken by the stock market officials.

Scientific, legal, financial, security, administrative and software structures comprise the infrastructure needed by the stock market. But at the moment, numerous problems put Iranian oil stock market at jeopardy. These problems are as follows: lack of financial framework; inefficient insurance, banking, customs and commerce system; lack of convenient tax regulations; the government dominance over the country's economy; lack of convenient ground for the activity of private sector; shortage of expert workforce; lack of access to advanced technology; weak structure needed by c-commerce; lack of needed economic, technical and legal infrastructures; problems with using international credit cards in the country's commercial and banking systems; existing traditional trading methods; Iran's pending accession to WTO; the US led economic sanctions against Iran and finally existing obstacles to in international cooperation with Iran.

From legal viewpoint, the growth of stock markets and development of transactions strategies are so fast that it has been increasingly hard for them to abide by the legal framework surrounding the stock market transactions. Different countries look upon the stock market from different legal point of view. Stock market

kets are supervised and regulated by their own specific rules where governments and international organizations attempt to maintain convenient and healthy environment for the trades in the markets through supervision. Governments regulate stock markets with the aim of:

- Supporting investors, especially minor ones
- Creating a decent atmosphere for transactions to promote markets' performance
- Mitigating the negative impacts of stock markets on the economy in the time of sudden and dramatic price fluctuation
- Encouraging competition among traders and supporting competitive transactions
- Preventing unfair trades

Today, regulatory bodies and standards have largely been developed but most of the great losses have caused by such stock markets through derivatives trades. However, it is not true that all trades done by derivatives instruments in Over the Counter Markets (OTC) are far from risks. Since derivatives trades are done between two or more traders privately, it lacks needed transparency and therefore the probable consequent losses are not publicized.

#### 4. Geographical Coverage

Stock markets expand geographically to encourage people to have more active participation in the economic growth, to use their savings, to put decentralization policies into practice, to alleviate the amassed liquidity in a region and to appropriate the sources properly.

# Diversity of transaction instruments and their flexibility

Generally, when we are talking about transaction instruments we mean instruments like derivatives. This

kind of investment entailing high risks is convenient for highly risk-prone investors with enough financial knowledge. Financial economics defines derivatives as a set of instruments or documents with common features including all exchange-traded and OTC instruments used for trading securities, foreign currencies, interest rates and so on. They are named derivatives since their value is derived from the price of their underlying assets.

This type of investment is generally considered instruments based on different types of securities like stocks and stocks indices. Derivatives instruments fall into two types: options and futures. In options, the stock holder is given options to sell or buy at a certain price in a certain time while in futures, time of transaction, the quantity and price are fixed in advance. Derivatives is a new term in financial studies while it has no application before 1990's. Simply speaking derivatives means risk management instruments. Those contracts are put in the derivatives category when they, contrary to traditional contracts, consider clearly defined risks and risk management.

In some cases, derivatives is described as the synonym of financial engineering. Generally, derivatives are classified into four groups: forwards, futures, options and swaps. Price developments of each aforementioned derivatives is a function of the developments of their underlying assets prices. Price developments of the ICE crude oil futures contracts is a function of Brent crude oil price developments although such other factors as time and the traders' expectations play a crucial role in determining the futures prices.

Deregulation of currency markets caused the stock markets to become interested in financial markets as well so financial derivatives became increasingly widespread. One of the reasons why the term "derivatives" was used in financial studies is probably that in derivatives contracts, contrary to traditional ones, risks are



definitely defined and likewise insurance policies they can manage the risks. In other words, derivatives enable buyers and sellers to recognize the nature of the risks and their domain in advance.

It is expectable that a large number of oil and gas producers and consumers and other traders will appeal to the derivatives. Thus, derivatives contracts have been increasingly widespread in leading stock markets since recent years. Derivatives always entail risks. Traders usually make use of three kinds of derivatives contracts: 1. through open outcries in the pit; 2. through direct transactions in OTCs and 3. by means of electronic facilities.

Recent advancements in electronic communications have given rise to the growth and expansion of stock markets. The working hours of stock markets have increase to 24 hours in some cases. After closing time of stock markets, automatic trade systems make it possible to keep on the trading. Expansion of stock markets has prepared the ground for international cooperation between leading stock markets worldwide. Besides more coordination among stock markets, this enables the traders to open a transaction in one stock market and close it in another. For example, you can open a transaction in SIMEX and close it in Chicago. Considering existing time lag between leading stock markets, using this method has led to round the clock trades in stock markets.

Governments' supervision is one of the most important issues in derivatives studies. Supporting the investors and improving the markets' performance and avoiding big losses are among the governments' principal polices regarding supervising the stock markets. If the supervision of derivatives markets by governments leads to improved efficiency of the markets and support of investors, the enterprises can play a crucial role

to this end.

Different ideas about the nature of stock markets and their decisive role in developing the global markets are one the key issues nowadays. Some contend that the expansion of futures and options contracts seems to be necessary since the risk can be transferred from risk-avert traders to risk-prone ones. From this viewpoint, expansion of derivatives will give rise to increased efficiency of the markets. This will cause financial markets to develop and consequently economic growth is encouraged.

#### **Conclusions**

Islamic Republic of Iran is one of the biggest oil exporting countries in the world. Oil prices being affected by many factors are prone to volatility. Since oil export contributes to the major portion of the country's revenues, volatile oil prices are able to destabilize the country's economy. A need for establishing an oil stock market or a financial futures market is increasingly felt nowadays.

Establishing an oil, gas and petrochemicals stock market will require facing some challenges and problems that should be diagnosed and coped with before any action. Such problems mainly have roots in unprepared banking, insurance, customs, economic and commercial infrastructures in the country. It is not only the Ministry of Petroleum that should prepare itself in this regard but other organizations and institutes should move in line with the international trends.

In conclusion, the establishment of an oil stock market in Iran is a very complicated process and success in this regard requires advanced technology and above all a convenient international atmosphere to accept it. As Adam Simensky maintains "such stock markets as London and NYMEX are successful because a large number of buyers and sellers are trading there." Iranian oil stock market will be a failure unless it attracts numerous traders.

Undoubtedly, Iranian oil stock market is regarded a great milestone in the country's history, economy and commerce. This will have impacts on the country's different sectors like finance, banking, insurance, customs, commerce, transport, tourism, IT, administration, legislation and industries. Building a stock exchange hall for petrochemical products will be the first step to this end where beneficiary parties in oil and gas stock markets can practice for a while before entering real crude oil trades in paper markets. Petrochemicals and oil products are currently exported from Iran to other countries while they had better be traded in the stock market.

Considering the abovementioned challenges and problems, this will be an audacious step requiring coordination and cooperation with other sectors. Under current conditions, the officials claim to move in tandem with the global economy developments through establishing an oil stock market may seem to be irrational since the market will merely specialize in petrochemicals and oil products trade due to the country's certain political and diplomatic situation and the Persian Gulf states' reluctance to trade there in the short run. It is worth mentioning that if Iran is willing to go beyond its geographical borders to do trade with other countries, it can not dictate its regulations to them. Nevertheless, establishment of an oil stock market in Iran will lead to the privatization of a major portion of government. This will give rise to more transparency in commerce and industry. Establishment of Iranian oil stock market is regarded as a national project and is free from bonds of politicking and political factions. Iran sits at a strategic crossroads where three oil rich regions, the Persian Gulf, the Central Asia and the Caspian Sea meet one another. The stabilized stock market in Iran means the stability of Iran's geo-strategic situation in the world. The establishment of Iranian oil stock market is also provisioned by the country's third development plan

so all officials of the economic and financial sectors have to do their best to achieve this national pride.

#### **Sources**

- I. Aram, Ahmand: "Feasibility Study of the Establishment of Independent Futures Stock Market in Iran", MA dissertation, Imam Sadegh (AS) University, Tehran, 2003.
- Ahmadian, Majid: "Theoretical Economics and its Application in Oil Industry", School of Economics, Tarbiat-e Modarres University, Tehran, 1999.
- 3. Derakhshan, Masoud: "Derivatives and Risk Management in Oil Markets", IIES, Tehran, 2004.
- 4. Dehghani, Farid: "A Comparison of Iranian Oil Stock with IPE and NYMEX", MA dissertation, School of Economics, Tehran University, Tehran, 2005.
- 5. "Oil Forward Markets and their Impacts on Oil prices and the Global markets", IIES, Tehran, 2001.
- 6. Yavari, Ebrahim & Boghozian, Albert: "A Survey of Oil Pricing Outlook and Oil Trade based on Dollars Focusing on European Markets and Euros", IIES, Tehran, 2003.
- 7. Dalton, John: "How the Stock Market Works", New York Institute of Finance, 2001.
- 8. Davenport, Penny: "A Practical Guide to Collateral Management in the OTC Derivatives Market (Financial and Capital Markets)", Palgrave Macmillan, 2003.
- 9. Dubofsky, D.: "Options and Financial Futures", Mc Graw-Hill, 1992.

#### **Endnotes**

- <sup>1</sup> The Petroleum Industry University, Member of the Scientific Board
- Holding an MA in Financial Management,
   Hussein\_moghaddam@yahoo.com
- <sup>3</sup> Over the Counter Market (OTC market)



# A Glance over Iran's Drilling Industry

#### Source: IranOilGas.com



rilling is an essential part of the petroleum industry and the basis for oil and gas production.

Oil is over 100 years old in Iran, but this vital part of the industry was always undertaken by multinational oil companies who were busy exploring developing and producing oil and gas in Iran until early 1979.

After the Islamic Revolution of 1979 and when the new system was setting in, NIOC undertook to establish a drilling company that came to be called the National Iranian Drilling Company (NIDC).

The Company was given all the equipments and drilling rigs (onshore & offshore) left behind by the multinational companies who had by then left Iran.

NIDC remained the sole local company active in drilling with no rival for at least 20 years. Then came about the two 5-year Development Plans of Iran (the 3rd & 4th Plans, April 2000-April 2010), based on which the private sector in Iran was to be given a much greater role, including in the drilling industry.

Starting early 2000, a new plan for Iran's drilling in-

dustry was enforced for ending the state-run monopoly of NIDC and helping the private sector to get involved in the drilling industry. The initiative was an integral part of a drive aimed at raising the efficiency and productivity in exploration, development and production of oil and gas in Iran.

Based on the new initiative, new drilling companies started being shaped up by both the private, public and semi-private sectors. Mustazafan Foundation (MF), OIEC and PetroIran were the first public sector companies to start getting involved in drilling activities by establishing drilling subsidiaries or departments.

In the private sector too, companies like Oriental Kish and Petro Hortash started getting active in the drilling industry.

Following is an attempt by IranOilGas Network to examine the activities of Iran's drilling companies in the private, semi-private and public sectors, almost ten years after the new plan in Iran's drilling industry was initiated.

The Network will also be shedding light on the acquired capabilities of Iran's drilling companies in engineering, procurement, securing drilling rigs (fabrication or purchase) and the needed auxiliary drilling services.

# 1- State-Run Drilling Companies:

### 1-1- National Iranian Drilling Company (NIDC):

As the very first Iranian drilling company, NIDC is said by its managers to be handling over 90% of drilling of Iran's oil and gas wells. NIDC owns 48 onshore and 3 offshore (jack-up) drilling rigs. The onshore rigs of NIDC are of three categories of Mechanical, Semi Mechanical/Semi Electrical and Electrical types. The Mechanical types are over 40 years of age. Two of the three offshore rigs of NIDC are active.

NIDC is involved in most of Iran's drilling activities either in the form of EPD contracts and hiring drill-

ing rigs or by providing auxiliary drilling services.

In the past 30 years of its foundation, NIDC has not managed to raise the number of rigs it owns. Though it has tried in recent years to get hold of some more drilling rigs, it has not succeeded yet.

It must of course be said that NIDC has successfully renovated quite a few of its drilling rigs, has made great advancements in drilling engineering and has progressed a lot in using modern drilling software.

In line with the requirement of Article 44 of Iran's



Constitution, NIDC has to be privatized, though there are resistances to the move. Besides, NIOC is planning to equip NIDC with fresh and modern facilities.

#### 1-2- North Drilling Company (NDC):

This is the second drilling company of the public sector which was established by NIOC in 2003. NDC was first given the ownership of 'Khazar' offshore drilling rig, stationed by the Caspian Sea, and later, NDC was also assigned the operator-ship of Iran's semisubmersible platform 'Alborz'.

With the support of NIOC, NDC has three onshore drilling rigs at its disposal and is planning to obtain few other onshore and offshore rigs.

NDC has been marked for privatization for the past one year, but no practical action has been taken to that end.

NDC is busy with some onshore well drilling projects of Iran.

#### 2-Semi-Private Drilling Companies:

Almost ten years ago, the semi-private companies like OIEC, Mostazafan Foundation (MF) and the Oil Industry Investment Company (OIIC) started getting involved in drilling activities too. For the purpose, OIEC founded 'Persia Drilling Company', MF established PEDEX and OIIC created Naftkay Co.

Out of the three, 'Persia Drilling' is no longer functioning. PEDEX with a single onshore drilling rig and Naftkav with two old onshore rigs are still in business, though neither of the two has managed to add more rigs to its possession.

PEDEX and Naftkav are busy with some onshore drilling projects in Iran, but their performance has not been up to the mark.

Poor performance of companies like PEDEX and Naftkav is mainly because they lack modern drilling equipments, money and qualified personnel.

#### 3-Private Drilling Companies:

During the past decade, quite a few private companies started getting involved in drilling jobs, the best known of which were Oriental Kish (renamed Global Petrotech), Petro Hourtash and Dana Drilling Company.

Later, however, most of those companies had to stop operating because they failed to secure even the basic needs for undertaking drilling projects.

Global Petrotech, created by the change in the ownership of Oriental Kish, is the most experienced of all private companies and owns two onshore and one offshore drilling rigs. Besides, Global Petrotech is capable of remaining firmly in business by hiring and re-hiring drilling rigs.

Petro Hourtash is mostly engaged in the supply of drilling rigs for other companies. Apart from its involvement in '20 exploratory wells' project, Petro Hourtash has not been given any other project. This company provided the North Drilling Company (NDC) with two of its onshore rigs last year.

Dana Drilling Company (DDC) has managed in recent years to significantly expand its involvement in drilling engineering, supply of rigs and auxiliary drilling services in Iran.

DDC is the drilling contractor of phases 15&16 of South Pars (in EPD mode), in some exploratory drillings and in the fabrication of drilling rigs as well.

Apart from Global Petrotech, which is fully supported by OIEC and has thus planned to expand its drilling fleet, other private drilling companies are hardly given any support of any sort for their activities

As can be seen clearly, Iran's drilling industry has not in recent years achieved much in terms of hardware, though in terms of software achievements have been significant.

The main reasons for Iran's drilling companies' failure to expand, especially the private and semi-private ones, are as follows:

- Companies do not have the financial backbone to undertake the required heavy investment in purchasing equipments/facilities and drilling operational bases.
- 2) Drilling industry is not regarded as a commercial enterprise by the local banks and insurance companies, which means no credit is extended to drilling companies nor do they have any insurance coverage.
- 3) Iran's private drilling companies have no coherent organization such as a union to come to defend their rights when needed.
- 4) Iran's oil ministry's policies on how to implement Article 44 of Iran's Constitution (calling for the privatization of state-run companies) are unclear in so far as the drilling companies are concerned. For instance, nothing is yet known about how NIDC and NDC will finally be privatized.
- 5) Only NIDC and NDC receive the unilateral patronage of NIOC, especially, where equipments and skillful workforce are concerned.

Both the private and semi-private drilling companies in Iran believe NIDC is a hurdle for their growth and they can not compete with it in tenders. This effectively deters them from taking any serious step towards investing in the industry.

Since these private companies are in need of State support for a hopeful future, lack of such a support has compelled few of them to halt their activities and only those with personal wealth or some patronage have remained active in the drilling field.

NIOC and its affiliates have put on great efforts in recent years to add to the number of their purchased drilling rigs, particularly the offshore type (jack-up). Several contracts have been signed with private, semi-private and public companies for the purchase or fabrication of rigs, but no news of arrival of any new rig has been reported

it should also be noted that NIOC has succeeded in promoting the domestic fabrication of many equipments, parts and facilities needed in the drilling industry.