CHATHAM HOUSE

Chatham House, 10 St James's Square, London SW1Y 4LE
T: +44 (0)20 7957 5700 E: contact@chathamhouse.org.uk
F: +44 (0)20 7957 5710 www.chathamhouse.org.uk
Charity Registration Number: 208223

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A Review of Opportunities for Japanese Firms to Participate in Iranian Upstream Projects

Hormoz Naficy

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EXECUTIVE SUMMARY

Iran is a resource rich country. It holds the second largest reserves of both oil and gas in the world. Crude oil proven reserves stand at 138.4 billion barrels (11.2% of the world total) and second only to the reserves of Saudi Arabia. As for natural gas, with 15.7% of the world total, the wealth is even more pronounced. Iran holds some 27.8 trillion cubic metres (981.7 trillion cubic feet) of natural gas. Only the Russian Federation has reserves larger than Iran.

Of the country's 16 major sedimentary basins, one has been explored relatively extensively. Three other basins have had a measure of exploration, but can be considered underexplored. The rest remain almost totally unexplored. It can therefore be claimed that the remaining potential of the country for exploration and thus for proving up further reserves in terms of both oil and gas is truly significant. A vast array of E & P opportunities exist for the participation of the international oil companies.

The case for the attractiveness of E & P projects in Iran can be made from a different technical approach. Current oil production stands at just over 4.4 million barrels of oil per day. This represents just 5.4% of the world total whereas, as noted above, Iran has 11.2% of the total world reserves. Last year natural gas production, excluding gas flared or recycled, stood at 111.9 billion cubic meters, equivalent to only 3.8% of the world total, versus a 15.7% share of the total world reserves. This comparison and these low production to reserves ratios indicate both an under utilization of the potential but also, from a positive perspective, additional proof of the existence of possible opportunities for participation in the further development of the oil and gas industry of Iran.

The challenges in Iran are not of a technical nature. In fact there is ample agreement amongst geologist and geophysicist familiar with Iranian geology that additional reserves are there to be explored and developed. Further the State has, after years of hesitation due to the internal debate on the merits of FDI, accepted the need for foreign participation in oil and gas projects. The challenges are in dealing with the political risks associated with any investment in today's Iran and in digesting the unattractive commercial terms of the prevalent "Buy Back" Contracts. Any decision to invest must be part and parcel of a longer term strategy that considers the inherent risks associated with an entry today weighed against the possibility that delays could mean the loss of these current opportunities. A more competitive environment will undoubtedly result from the normalisation of relations with the West, especially with the United States.

Beyond that opening to the United States, US oil companies may get preferential treatment if not for political reasons, and that would be a strong possibility, then certainly for their technical superiority, especially with regards to the execution of complex offshore projects.

The entry of the oil majors from the United States could in fact coincide with a major policy change whereby Iran might slowly turn away from the currently favoured "Buy Back" Contracts and towards a contract formulated to resemble the more acceptable Production Sharing Agreement (PSA). Already there have been internal discussions, albeit somewhat muted, on adopting certain features of the PSA, those that are most strongly favoured by the International Oil Companies (the IOCs). Furthermore it can be assumed that as part of a strategy to attract wider participation by the IOCs, those responsible for oil policy will allow a more accelerated review of the merits of switching to the PSA in all but name. The Iranian Constitution prohibits the granting of concessions to foreign companies for the exploitation of natural resources. The interpretation has thus far been that foreign oil companies cannot acquire equity participation in oil and gas projects. The case can be made that this rather strict interpretation may change as part of the policy changes. At the same time, with vastly more interest in its projects, Iran could and probably would increase the cost of entry for all. Therein would lay the argument that Japanese firms should avail themselves of seriously reviewing E & P opportunities now, during the current period of lesser competition.

This paper identifies and discusses a vast array of opportunities that currently exist in the oil and gas sector of Iran. These range from proposals to carry out basic geological and geophysical area studies and seismic options leading to full exploration, appraisal projects and finally to full field development. There is a deliberate attempt to calibrate a range of possible projects. At the lower end will be those that can be carried out with small front end investment, in the shorter term, all the way to major development projects that require large investments and a longer term commitment. The recommendations that follow are designed to weigh up the pros and cons of the full range of opportunities identified and discussed and it has been premised on the assumption that all viable options may be and should be considered by Japanese firms with an interest in Iran.

The paper attempts to look at the changing socio-political and economic "landscape" of the country and assess how possible and probable changes might impact the oil and gas sector and ultimately affect the emergence of future opportunities.

With respect to political risk considerations, both domestic and international, the paper develops four different scenarios to assess the likelihood and impact of each on the oil and gas sector.

The recommendations at the end of the Paper, and the further explanations to be provided at the presentation meeting with Jetro, as noted below, are based on a review of all options and the assessment of all associated risks and will offer an entry strategy for the Japanese firms. The aim throughout is to offer such firms the enhanced ability to identify viable projects and approach them with a fuller understanding of the risks and rewards, on a project by project basis, as well as with regards to country risks. For Japanese firms, opportunities in Iran today need to be measured against opportunities in other oil rich provinces. It may well be that Japan cannot afford to miss out on current opportunities. A well considered, measured start today will lead to participation in major projects in the future. Whatever the pace of the entry, the absence of Japan in Iran's oil and gas sector is commercially short sighted and ought to be reversed as soon as feasible.

The findings and all recommendations in this Paper will be presented in a one day round table discussion session with Jetro and its invited guests at a time to be determined by Jetro. The session will enable the author to further flesh out the findings and offer detailed advice on possible entry strategies.

REVIEW OF BILATERAL RELATIONS

Iran and Japan established diplomatic relations in 1926. Bilateral relations since can best be summed up as a mutually beneficial trading partnership, with little political encounter that would either help or hinder these relations.

A brief historical overview of Iran – Japan political and cultural ties since 1926

Since Iran and Japan established diplomatic relations in 1926[1], the two nations have conducted continuous trade mostly in petroleum and electronics. Japan's biggest import from Iran is oil and Iran's largest import from its trading partner is electronics. Relations have generally remained favourable with the exception of two incidents, the major one being the Iranian Revolution in 1979 and the second, more minor one, being the kidnapping of a Japanese hostage in Iran in 2007. The impact of the Revolution on these relations will be discussed in a later section.

In terms of cultural relations there has been a history of successful cultural exchanges. A Cultural Agreement was signed between the two nations in 1957. Stemming from this, several cultural events have been held in recent years. Japan has to date provided Iran with Y251 million of Cultural Grant Aid, and Y112 million for Cultural Heritage.[2]

Further examples are the cinematic collaboration such as the 2003 film 'The Wind Carpet', plays at the Noh Theatre in Iran and a ceremony at the Japanese embassy in Tehran hosting a charitable event for children with intellectual disabilities.[3]

Bilateral Trade

Last year, Japanese exports to Iran stood at $1.3 billion, while Iranian exports to Japan were $12.7 billion, most of which was crude oil.[4] Iran remains Japan's fourth largest supplier of crude oil. In the Iranian year 1384 (2005-

[1] www.japaninc.com Iran-Japan Relations.

[2] Japanese Ministry of Foreign Affairs Website

[3] www.japaninc.com Iran-Japan Relations.

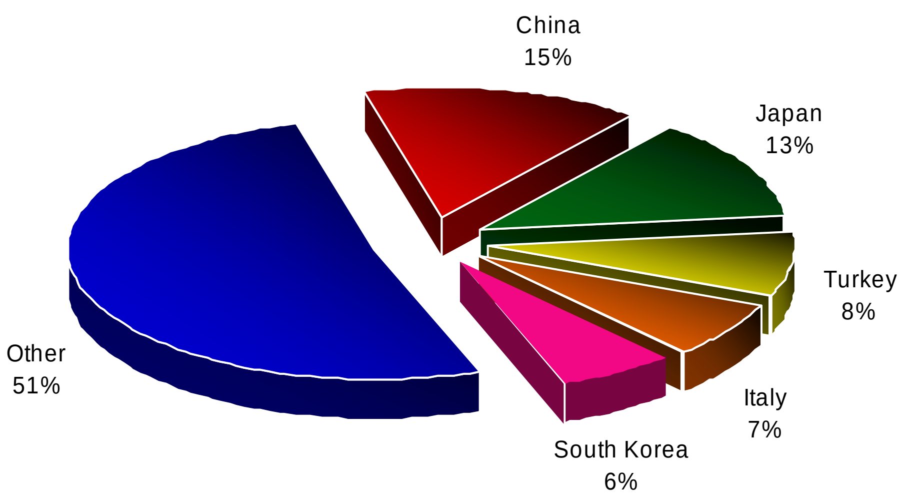
[4] Japan External Trade Organisation (JETRO)

06), 20% of all Iranian crude export went to Japan. In the same year, non-oil exports to Japan stood at $538.5 million.[5]

The Iranian Embassy in Tokyo states that bilateral trade between Japan and Iran is expected to reach $20 billion this year.[6] Throughout the 1990s Japan had been Iran's largest market, accounting for about 13% of total exports (on average in the period 1992-1997).

Japan has extensive economic cooperation with Iran, including Y73.5 billion of Loan Aid and Y1.3 billion of Grant Aid up to 1999, inclusive. Furthermore up to 1999 Japan had invested Y12.8 billion through technical cooperation inside Iran.[7]

Iranian Exports by Destination (2007)[8]



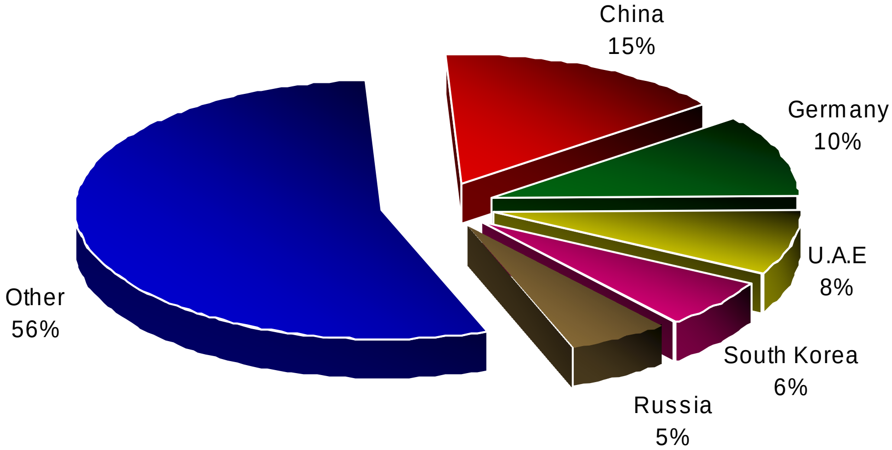
[5] Economic Report and Balance Sheet 1384, Central Bank of IR Iran

[6] Iranian Ministry of Foreign Affairs.

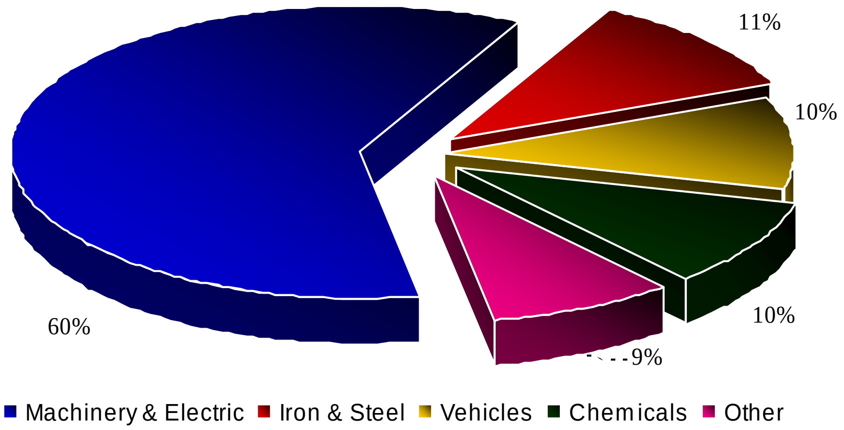
[7] Japanese Ministry of Foreign Affairs Website

[8] EIU Iran Country Report, 2008

Iranian Imports by Origin (2007)[9]



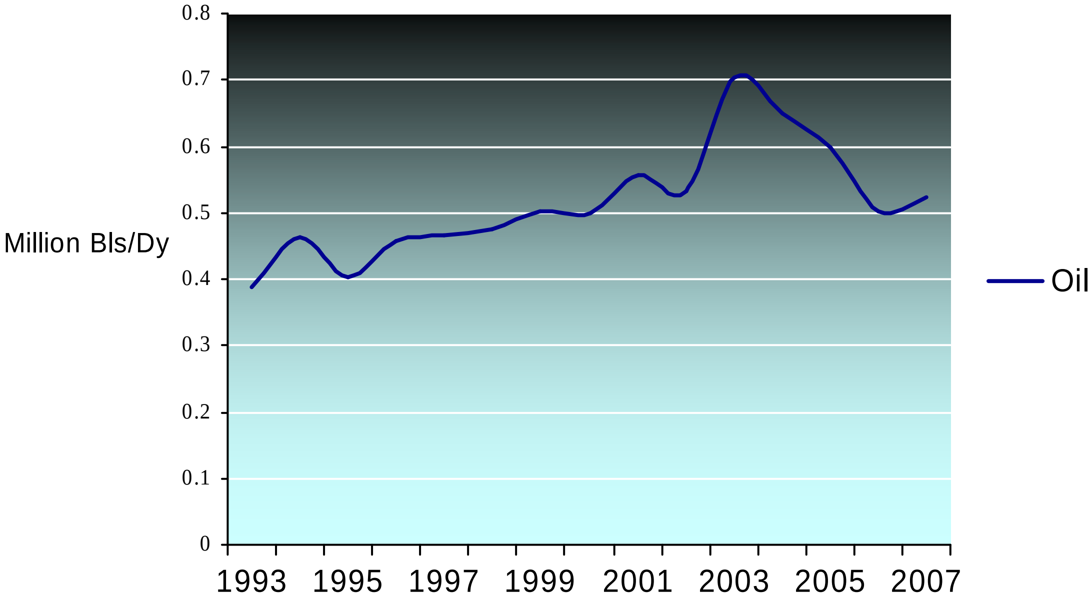
Japanese Exports to Iran by Type (1994)[10]



[9] EIU Iran Country Report, 2008

[10] Economist Intelligence Unit, Iran Country Report 1996

Iranian Oil Exports to Japan in Million Barrels per Day (1993 – 2007)[11]



Azadegan

In 2004 the Japanese consortium Inpex Holdings signed an exploration and production agreement with the Iranian government with respect to the development of the Azadegan oilfield. The deal was worth $2bn, the largest oil exploration and development project Iran had signed to that date with a foreign party.

However in 2006, owing to pressure from the United States, the consortium decreased its stake in the venture from 75% to 10%, effectively forcing a postponement of the project. In Iranian circles the delays that resulted were met with much disappointment and consternation. At the proposed presentation meeting with Jetro, a fuller discussion of the impact of this decision will be undertaken.

In 1992 Japan agreed to provide Y150 billion in loan financing for the completion of Iran's Karun Dam in Khuzestan, being built to alleviate the

[11] US Energy Information Administration

country's power shortage. In 2001 this loan was reduced to Y30 billion[12] and the dam is now completed.

In 2007, China surpassed Japan as Iran's largest market for the first time, by taking 14.5% of market share compared to Japan's 13.3%.[13]

REVIEW OF THE OIL AND GAS INDUSTRY OF IRAN

Iran is a resource rich country. It holds the second largest reserves of both oil and natural gas in the world. Crude oil proven reserves stand at 138.4 billion barrels or 11.2% of the world total and second only to the reserves of Saudi Arabia. Increasingly there has been a sharper focus on the significance of the size of Iran's reserves in terms of natural gas. With 27.8 trillion metres (981.7 trillion cubic feet) of proven reserves Iran holds 15.7% of the world total. Only the Russian Federation has higher reserve figures.

History of the industry

The Iranian oil industry is one hundred years old this year, the oldest in the Middle East. Oil was first discovered in 1908. It is also a proud industry and it is recommended that individuals and companies that contemplate an entry into Iran familiarize themselves with the turbulent history of these past one hundred years. Only a brief summary on the history of the industry is included here. A recommended list of books to read, for a fuller understanding of the passions associated with this industry, appears as an appendix to this Paper.

As a result of the pioneering exploration work of Anglo Persian Oil Company, a forefather of today's BP, first oil was discovered in a location called Masjid-e-Suleiman, in South West Iran, in 1908. Anglo Persian Oil Company, later called Anglo Iranian, had gained exclusive rights to explore for oil in a vast stretch of land in South Western Iran. In the early days Iranian involvement in that work was limited to the supply of the blue collar oilfield labour. Abadan oil refinery, built to refine this crude for export, and at the time the largest in the world, was also British managed and controlled.

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[12] Middle East Business Intelligence Website

[13] EIU Iran Country Report, 2008

Royalties paid to Iran were a subject of discord between the Iranian State and Anglo Persian / Anglo Iranian from the outset. This and the absence of Iranian participation in the decision making process were arguably the major grievances that eventually led to the nationalization of the oil industry in 1951. During the nationalization period (1951-3) Iran was unable to export oil as it lacked the tanker fleet to reach markets and at any rate these markets were closed to Iran as a result of the de facto boycott of Iranian oil.

With the overthrow of the nationalist government of Dr Mohammad Mossadegh, in 1953, Iran entered an era of grudging cooperation with the IOCs. The United States, by then heavily involved in Iranian affairs, promoted an agreement between Iran and a consortium of international oil companies comprised of BP (40%), American Oil Companies (40%), Royal Dutch / Shell (14%) and Compagnie Francais de Petrol (6%). The United States engineered not only the entry of its oil majors into Iran for the first time but it also enabled BP to retain a major interest for another quarter of a century. This agreement and a series of joint venture agreements signed in the 1960s and the 1970s remained in force until the Islamic Revolution in 1979.

The oil agreement of 1954 enabled Iran, albeit modestly at first, to exercise its rights, to participate in oil operations and in the decision making process. Even though the oil Consortium retained control over actual oilfield operations, the ownership of physical assets passed on to the State. NIOC also assumed responsibility for all non – basic facilities in the agreement area and took over the operation of the Naft-e-Shah oilfield and a refinery in Western Iran. Furthermore this newly empowered NIOC began its own exploration and development activities outside the agreement area which led to the discovery of oil and gas in Central Iran. These early experiences gave Iran the foundations on which to build a robust national oil industry, both upstream and downstream and the confidence to supervise and monitor the work of the IOCs in later years.

It should be emphasised that with de facto changes to the contractual relationship with the Consortium and the signing of the Sale and Purchase Agreement in 1973, followed by the enactment of a new Petroleum Act, and the conclusion of a number of Risk Service Contracts in 1974, Iran's cherished objective of full and complete control of its oil industry was finally achieved.

The socio-political upheavals leading up to the Islamic Revolution (1979) and the Revolution itself brought about radical changes to the entire makeup of the industry. All agreements with the IOCs were declared null and void and as with the period of Nationalization Iran assumed all operations with what was left of the cadre of management. The entire senior and mid level management from the pre-revolution era were replaced, removed or forced into exile. The operation of a huge industry producing some 5 million barrels a day was in new hands.

The Iran – Iraq war (1980-1988) that followed the Revolution further prevented an orderly development of the industry. Production facilities, pipelines, refineries and export terminals were all damaged by ground operation or by airstrikes, greatly reducing Iran's ability to maintain production at pre war levels. The early years after the war were dedicated to the repair of these extensive damages and the rehabilitation of the industry.

Since the revolution another significant drag on progress towards the further development of the industry has been the detrimental impact of the on again, off again economic sanctions imposed as a result of poor relations with the United States.

These sanctions and Iran's relative isolation has forced Iran to focus on the rapid development of domestic capabilities whether this be in the manufacture of goods, the provision of required services or in the ability to handle project management without benefiting from outside technical input.

Official government attitude towards the participation of the IOCs in Iran's oil and gas sector has shifted over the years. In the early years the more radical stance was prevalent with the belief that foreign oil companies would again exploit Iran and were thus undesirable partners. After the Iran-Iraq war and during the Rafsanjani era, with the emphasis on rehabilitation, the internal debate favoured those who advocated the need for acquiring foreign technical and financial involvement, from whatever source. With the election of Mohammad Khatami as President, in 1997, this debate was finally won by those advocating FDI and the full participation of the IOCs in the oil and gas industry of Iran. The formal opening towards the IOCs occurred in 1998 during a major oil conference in London. NIOC offered a range of projects in which the IOCs could participate and the terms and conditions of the "Buy Back" Contracts were spelled out in detail. Contracts between NIOC and the IOCs that exist today all date back to that Conference, or have as their origins, the initiatives that were taken after that date. Appendix I attached to the Paper gives a listing of E & P projects in which there is currently foreign oil company participation.

CURRENT UPSTREAM OPPORTUNITIES

There is a full range of E & P opportunities to consider. Pure exploration, appraisal and full field development projects are all available. The application procedure and the approaches to NIOC, with respect to each phase, are not too dissimilar and are described below.

Existing E & P Projects: A number of these are essentially off the shelf projects in the sense that these are projects that NIOC has already dedicated for IOC participation. These are available for consideration by any bona fide oil company with a genuine interest in the Iranian upstream. However any such applicant company must first convince NIOC that it posses the requisite level of technical and financial ability to undertake an E & P project in Iran, as a Contractor to NIOC. There is in effect a vetting process but beyond that NIOC will allow any approved company to review the related data in Tehran and open discussions with a declaration of intention. A limited amount of data can be reviewed at NIOC in Tehran and a bid can be submitted and discussions started with NIOC for the chosen project(s).

Exploration Opportunities: The last formal exploration round was announced in February of last year. In that round NIOC offered 17 blocks for exploration under the Second Exploration Round. Of these 6 were from the previous EDC Round in 2004 or from the ESC Round in 2003. A further 11 were new blocks offered for the first time.

The commercial terms were altered, with NIOC assuming that the new terms would be more attractive to the IOCs. Essentially improved terms related to the guarantee that the Contractor would be offered the first opportunity to develop a commercial find.

The following 12 onshore blocks were offered:

Block 1 Kalat

Block 2 Quchan

Block 3 Naft Shahre

Block 4 Ilam

Block 5 Danan

Block 6 Fasa

Block 7 Bandar Abbas

Block 8 Raz

Block 9 Maraveh Tapeh

Block 10 Moghan 1

Block 11 Moghan 2

Block 12 Kavir

The following 5 offshore blocks were also offered:

Block 13 Alvand

Block 14 Ferdowsi

Block 15 Laleh

Block 16 Taban

Block 17 Dayyar

An evaluation of the exploration potential of each block is beyond the scope of this Paper. However a summary for each block will be offered when the Paper is presented to the client in December. It can be noted here that there is a general consensus amongst geologists familiar with Iranian geology that of the above blocks, block 3 (Naft Shahre), block 5 (Danan) and block 7 (Bandar Abbas) are the most attractive onshore, and blocks 13 (Alvand) and 16 (Taban) are the most attractive offshore.

Further Exploration Options: NIOC has been keen for some time to promote exploration in the higher risk parts of the country, essentially in sedimentary basins which have attracted less attention since the return of the IOCs to Iran. From a geological point of view there is a general consensus that there are 16 main sedimentary basins in Iran. Of these only one, the Zagros Basin and the adjoining Iranian Continental Shelf, has been fairly extensively explored. Even though the onshore sector is considered a relatively mature petroleum province, there are identified leads in the offshore that require additional work. Of the remaining 15 basins, two or three have had a measure of exploration carried out over the years. These can still be considered as highly underexplored. The remainder are truly unexplored. NIOC accepts that these are therefore high risk and is willing to offer incentives to attract foreign participation. These would offer special opportunities to companies that are seeking an inexpensive entry. With respect to these areas NIOC may accept a bid that combines regional G & G studies, with a seismic option approach. The proposed work programme for such a high risk area could envisage the carrying out of a regional G & G study that could help NIOC and the applicant company better understand the geology of the area. A second phase would be the carrying out of seismic in the more prospective parts of the study area. Should the two phases prove up the potential of the area covered, NIOC would normally open the area for bidding and the grant of an agreement. However the seismic option Contractor may be offered the opportunity to offer a full EDC proposal to NIOC before any formal bidding process commences. Recent experience has proven that even if the Contractor fails to achieve that, a preferred position is gained for other future bids and negotiations in Iran.

Field Development Opportunities: As with exploration, there are off the shelf opportunities as well the potential to offer a proposal that may be innovative and involves convincing NIOC of the merit of an alternative approach.

Before dealing with the off the shelf projects it should be noted that the ownership of these field development projects lies with several, often competing, state entities all subsidiaries and or off shoots of NIOC.

The Iranian Central Oil Fields Company (ICOFC) has invited the IOCs to bid for the development of 12 onshore oil and gas fields. The seven oilfields are:

Kooh Mand in Bushre Province

Viz Nahar in Lorestan Province

Cheshmeh Khosh in Ilam Province

Alborz in Qom Province

Boushkan in Boushre Province

Boushre in Boushre Province

Kooh e Khaki in Boushre Province

The five gas fields are:

Gardan in Fars Province

Assaluyeh in Boushre Province

Mokhtar in Kohkilouyeh Province

Salakh in Hormozgan Province

Kabir Kuh in Ilam Province

The development of each of these would be under a separate “Buy Back” Contract. It has been reported that the costs for the development of each of the seven oil field projects to be in the region of $45 million. As for the gas fields, the development costs has been reported to be in the region of $ 225 million for Salakh, $500 million for each of Gardan, Mokhtar and Kabir Kuh and finally over $1.1 billion for Assaluyeh.

EMERGING TRENDS

Iran is at a cross road with respect to a number of choices it has to make on its political as well as its economic future. Understanding public opinion and perceptions on these is beyond the scope of this paper. However as each of these may impact and influence the trend and the pace of the development of the oil and gas industry, in this section an attempt will be made to highlight the issues associated with a few of the more pertinent of these trends.

Drive for democracy and freedom of speech

Iranian yearnings for democracy and freedom of speech date back to the Constitutional Revolution (1905 – 1911). A combination of modern day democrats, influenced in part by Western thinking, and the more reform minded of the clerical leadership forced major concessions from an autocratic Qajar king. The next awakening and a revisit to these aspirations did not occur until the coming to power of the Mossadegh government in 1951. The third of these uprisings occurred in the late 1970’s with the uniting of the various opposition forces determined to ousts the Shah. In between these dates the regime of the time was able to squash any effort to build on these gains. It can be argued that since the last of these, the protest movement of the late 1970’s which culminated in the Islamic Revolution, again the regime has been able to check the further development of democratic institutions and the achievement of full freedom of speech. The desire to complete what was prematurely terminated on so many occasions is arguably the most potent driver in political terms and will impact all else in the country. Associated with that will the constant battle for the freedom of speech so that women could seek equality with men, workers can demand the right to form unions and achieve better working conditions and better pay, and youth could aspire for more social freedoms. That trend will run under the surface for only as long as there is total intolerance and suppression of these aspirations and will resurface in the near term just as it did, most recently during the Khatami presidency.

Economic downturn, rising unemployment and the brain drain

Iran has an unusually young population. Almost two thirds of the population is under thirty, and half are under 25. Iran needs to create 600 - 700,000 jobs each year just to cater for the university graduates. Only a fraction of this has been achieved in the years since the Iran - Iraq war. Matters are now made much worse by the current economic downturn and lower oil prices, wiping away the ability of the government to buy time. Increased intake in universities brought only slight relief in that the young entered the job market a little later. There is little more that this unwell economy can deliver. The educated young are leaving the country in record numbers resulting in a massive brain drain. Once lost it would be difficult to induce all of them to return even if the economic downturn is reversed. That trend will have long term economic and political implications.

Stagnant economy, inflation and the income gap

The consensus amongst Iranian economists is that Iran is now formally in a recession, much like the rest of the world, following a period of stagnation. At the same time inflation, currently running at 26% has been a major complaint for over three years. Furthermore opposition figures show that the income gap between the rich (top 10%) and the poor (bottom 10%) has been growing. That must be a major embarrassment for the government, considering that a major tenet of the revolution was that this social injustice, caused by the Pahlavi regime, would be eliminated after the Revolution. A trend that will require constant monitoring is the rising dissatisfaction caused by the economic downturn and the government’s poor response to it. Falling purchasing power and the inflation, combined with rising unemployment, is resulting in what has been called the “perfect storm”.

Iran's Nuclear Programme

Iran has a proud history, and throughout the centuries Iranians have been able to unite against foreign threats, real or perceived, and all despite the popularity, or otherwise, of the regime or the rulers of the time.

The regime has been able to portray the objections of the West with Iran's nuclear programme as just one such threat, and the West has been unable to fathom the depth of these hurt feelings in Iran. For the most part the public in Iran sees a huge double standard at work. Apart from the major powers that acquired nuclear know how and military capability long ago, Iran has seen the proliferation of that capability to its own very neighbourhood. India and then Pakistan achieved that capability, and so has Israel. Iranians cannot understand the highly emotional objections the West has with Iran's drive to also acquire that technology, especially when presented as a programme to acquire an alternative source of energy, and for non-military purposes. Unless the public reaches a different take that indeed military purposes are intended, the support for the programme will continue to be strong. Clearly on that count the public has thus far given the regime the benefit of the doubt, and that has to be factored in whenever there is an assessment of the public reaction to the price to pay for the current UN imposed sanctions.

CHALLENGES AND THE MANAGEMENT OF RISK

There is little doubt that at present, Iran remains a challenging country to operate in. Apart from the well understood political risks, there are commercial, legal and operational risks as well, associated with any investment and operation in Iran. Some of these challenges are similar to those encountered in any other developing economy and some are very unique to Iran. The focus here will be on those that are unique and need clarification and further thought. The extra effort will be well worth it for any company contemplating an entry into the Iranian scene. For any company willing to take on board, and manage the unique challenges, the opportunities in the oil and gas sector remain truly unique. Indeed the oft stated reason for the presence of the IOCs in Iran, despite the challenging environment, is that they could not afford to be absent. Indeed all major international oil companies, apart from those from the United States, and BP, are currently in Iran, or have been at some point during the last ten years or so. This section will deal with the identification of the major challenges that will confront a new entrant and will offer approaches that will lead to a better understanding of the cause and effect of these challenges, on any new investment.

After a long internal debate on the merits of FDI in the oil and gas industry, in 1998 NIOC finally announced 24 “Buy Back” development projects that would be offered to the international oil industry. Since then the IOCs began a gradual and grudging return to Iranian E & P. After this first wave of development projects, NIOC turned to exploration projects and the first of these was signed in 2000. It has not been a happy return and both parties, NIOC and the IOCs, have claimed and counter claimed on the intransigence of the other. NIOC has not been able to fully comprehend the issues the IOCs have with the commercial terms of the “Buy Back”. Nor have they understood other concerns relating to the vast Iranian bureaucracy and red tape, and the difficulties with relation to the actual logistics of operations in Iran. The IOCs have a long list of grievances and requests for change that they consider essential for the establishment of a better investment climate. The challenges any new player will face will be similar to those already faced by the IOCs with a history of operating in Iran, and will therefore be discussed in greater detail in this section.

The dominance of the state sector: Economic activity is heavily concentrated in the public sector of Iran, with the state sector accounting for just over 65% of the GDP. Public sector entities were never particularly efficient and since the Revolution the trend has been towards the further concentration of economic activity in the public sector. The private sector firms that were nationalised after the Revolution were all taken over by the Bonyads, the quasi state entities that were established to manage these nationalised industries. In the oil industry itself these entities were, for the most part, kept out of upstream activities until the election of President Ahmadinejad in June 2005. Now off shoots of these entities are participating as contractors in practically all upstream projects despite the initial resistance of NIOC itself.

The inefficiency stems from the absence of incentives for good public sector management, and lack of reward for increased productivity and performance. With high unemployment throughout the economy, public sector managers are dissuaded from sacking redundant or under performing workers. Labour laws are skewed towards maintaining high employment at all costs, and are therefore highly protective. Official figures show unemployment at 11% of the labour force whereas in reality if underemployment and hidden unemployment are taken into account the unemployment figures has been reported to be in excess of 20% of the working age population.

The bloated state sector also starves the private sector of the more lucrative government contracts. In recent years this problem has become particularly acute in the oil and gas sector. Since the start of the current privatization drive, a number of so-called private sector companies have been established. A number of these are in fact no more that quasi state, off shoots of NIOC. Their management is essentially on secondment from NIOC, and with investments from NIOC Pensions or from other state entities, ultimate control remains with the State. Other entrants are the new companies associated with the Bonyads and none of these can really be considered private sector. With little real expertise of their own in the execution of E & P projects they are all turning to established international oil industry sub contractors and service providers for partnership arrangements and are winning lucrative contracts from NIOC.

Centralisation of decision making and state bureaucracy: Iran has always had an extremely centralised decision making process, combined with a highly bureaucratic state system. Every aspect of economic activity is micro regulated and most activities require permits from a host of governmental agencies. Furthermore each permit requires several visits to these institutions and the process is slow and extremely time consuming. This has been the source of one of the most often repeated complaints of the foreign oil companies operating in Iran.

The “Buy Back” contracts spells out the rights and obligations of each party, and NIOC as the granting authority, as well as one party to the agreement, is obligated to facilitate the work of the Contractor by, inter alia, handling many aspects of the permitting process when such permits are required from other state bodies. The IOCs point out that NIOC has not been able to deliver on that obligation. Contractors often have to manage the permitting process themselves, with little input from NIOC. Frustrations with this elaborate and time consuming process could, and often does, lead to all involved circumventing the system and to corrupt practices.

Indigenous industry and local content requirements: Iran has been confronted with one form or another of economic sanctions since the Revolution. These have obviously impacted and hindered development in all sectors of the economy. Arguably the impact has been most pronounced with respect to the oil and gas sector of the economy.

As was noted earlier the oil and gas industry of Iran was heavily connected to the international oil industry prior to the revolution, and all the major international oil companies were heavily involved in Iranian E & P until 1980. The major foreign operators of the time, whether the Consortium or the many joint ventures between NIOC and the IOCs, had one ingredient in common: all had a strong reliance on US oil technology and know how. As with the industry elsewhere in the world of the 1970s, the sub contractors, the seismic crews, the drillers, those involved with field development were all US based companies. The oil industry equipment was also, for the most part US manufactured. With the rupture of relations with the United States after the revolution and the nationalisation of the industry, that US input of capital, material and know how was denied to Iran.

One positive consequence of some 30 years of sanctions has been the renewed effort to develop domestic capabilities. Building on the nascent industrial base of the late 1960's and early 1970's, local manufacturing received further focus from the government and increased investment. During the Iran - Iraq war, and in the reconstruction period that followed, there was an immediate need for oil and gas industry parts to replace that which had been damaged during the war. Initially Iranian manufacturers took on these challenges with the manufacture of drilling related equipment, and parts needed for the onshore surface facilities damaged by the war. After these initial forays, these manufacturers took on the task of manufacturing many major components of offshore platforms and the provision of services related to seismic activities, core and well log analysis and related lab work and up front engineering related to oilfield development, both onshore and offshore.

With this measure of success in terms of establishing local capability, NIOC began a policy of encouraging the IOCs to commit to a maximisation of the local content in all oil and gas project proposals. In fact the early "Buy Back" contract models had a requirement that at least 40% of the contract value had to be placed with domestic manufacturers of equipment or service providers. This formal requirement was later relaxed but the IOCs as contractors were, and still are, required to maximise the local content and to justify and explain reasons for not meeting these expectations. This was a challenge for the contractors trying to meet deadlines as volumes picked up and often the few qualified manufacturers or service providers were unable to meet standards or were late with delivery. There is also a related requirement to hire qualified Iranians at all levels to the maximum possible. NIOC has often faulted the IOCs for failing to deliver on both these local content requirements and the management of this requirement will continue to be challenging for the foreign contractors operating in Iran.

Cultural issues, business habits and partnership: To operate in Iran relationships need to be developed and nurtured constantly, at all levels. Good public relations is not an added management tool or skill, a plus to have, but rather an absolute must in all matters that require a decision or a commitment. Foreign companies that wish to operate successfully in Iran need to understand and cater for this aspect of business life in Iran, for it mirrors almost exactly the need for good relationships in personal life. Often this need is confused with an assumption that there is an unwritten requirement to bribe. Even though the level of corruption is a matter of concern there has to be acceptance that it is not all encompassing. Often the establishment of good personal relationships will be sufficient to achieve a suitable result.

In the Iranian context, and because of the peculiarities of business life noted above, the choice of a good local partner in Iran is more crucial than in most other countries. A good partner will guide the foreign party through the cultural minefield and towards a sustainable presence. There are local companies that operate professionally, with full accountability and transparency, very much based on the successful western models, that can offer services required for an early understanding of the market and it's potential. These could also assist with establishing a local presence, the choice of local subcontractors and the acquisition of goods and services. A number of the private sector companies are now financially robust enough to offer joint venture opportunities or other forms of equity partnership. Where they lack the ability to finance their share, they can offer professional services in lieu of financing their portion of the joint venture.

An assessment of political risk: With technical and commercial risks covered in previous sections, the focus of this section will be on political risks. The impact of possible future political developments on the oil and gas industry can be reviewed and assessed under four scenarios considered most likely to occur.

1) **Scenario: The gradual resolution of international disputes with the West and a move towards moderation in dealing with domestic political issues.** In terms of foreign policy challenges the two most critical issues that require a shift in attitudes and approach remain the relations with the United States and a less confrontational

alternative policy with respect to Iran's role as a regional power. The recent election of a new President in the United States offers the possibility for new dialogue and the calmer airing of grievances that each has towards the other. Furthermore Presidential elections will be held in Iran next year and the early jockeying for advantage has offered Iran the opportunity to look afresh at the calming of general political setting, and the acceptance of the need for matching any indications of moderation from the new US administration. President Ahmadinejad will, in all likelihood, tone down the rhetoric ahead of the start of the official campaign and will appear more accommodating to proposals to start a dialogue. Offers from third parties to act as honest brokers, such as the recent one from Turkey, will be more welcomed, if there are clear indications that Iran's legitimate concerns will be properly addressed. The issue of removing preconditions can, and probably will, be absorbed by guarantees that could be offered by the mediating third party. Iran has already reached a comfort zone in terms of achieving a measure of capability in the nuclear technology field, and may forego an insistence on further immediate development. Iran could then await the outcome of a broader quid pro quo that removes the hidden agenda of regime change as the primary political stick.

In the near term, developments in the domestic political scene will now be determined by economic performance, or lack of it. High oil prices in recent years enabled the government to cushion the poor from the effects of poor economic management. With oil prices now in the region of $ 50 per barrel, and falling, this will be harder to maintain. Iran will need a reconnection to the international economy and inward investment. Mounting economic pressures, high unemployment, inflation and a failing state sector, will convince Ahmadinejad to alter his priorities towards at least appearances of political moderation and a less populist economic agenda. The system has sufficient built in checks and balances to force an acceptance of a change of course. The system will call, and can impose, changes that will demand more focus on the plight of the long suffering middle classes and less on buying the instant loyalty of the urban poor and those in rural areas. The current mayor of Tehran and other less controversial candidates from the same conservative camp will steal that march from Ahmadinejad, if he does not change course.

2) **Scenario: Further turn towards radicalisation and international isolation**. In the event that efforts towards a general “rapprochement” between Iran and the United States, as noted above, fail to deliver immediate and tangible results, as was the case during the Khatami era, the opportunity will be given to the radical camp to reassert a doctrine which essentially rests on the argument that the United States as an eternal enemy cannot be trusted. Should there be no evidence of a timely U.S. pull out from Iraq, and a divergence of interests in Afghanistan, then those that wish for a continuation of confrontation will regain the upper hand and will promote renewed minor proxy wars in the Middle East. Within Iran’s complex power system there are those who benefit from the continuation of such confrontation, and will be quite capable of springing enough mini crises to silence the moderate voices in the near term. However with the nation pretty much exhausted by thirty years of hot and cold wars it is unlikely that they would push matters to such an extreme that it would result in direct military confrontation with the United States, or for that matter with any of Iran’s major neighbours.

3) **Scenario**: **Rapid economic deterioration leading to regime change.** This is a longer term prospect but cannot be ruled out. It has to be recalled that the Pahlavi regime was considered well entrenched and politically robust until practically the eve of the Islamic Revolution. The regime appears to have support among key sectors of the population, the urban poor and those living in rural Iran. The elite Revolutionary Guards and the paramilitary Basiji units form the backbone of the military response to any challenge. The regular armed forces, after thirty years of indoctrination, are for the most part supportive of the regime. Internal opposition cannot surface from the left of Iranian politics, the socialists and more extreme left, as the leadership of this group has been decimated systematically since the Revolution. The nationalist and the movement that represented a fusion of nationalism and religion have been sidelined since the early years of the Revolution. The reformist movement that evolved out of the revolution itself and surfaced as a result of dissatisfaction with the outcome of the Revolution has lost its appeal since the second

Khatami term. At any rate even if they return to power they may not deliver enough constitutional change for it to be considered a regime change. The rest of the opposition forced into exile is badly splintered with no focal point, no common agenda and no obvious opposition figure to rally around. The platforms they represent encompass all shades of Iranian politics, from the Secular Republicans to the Constitutional Monarchists. All efforts to date to form a rainbow coalition have failed to move beyond the preliminary meetings.

4) **Scenario: An Iranian Velvet Revolution**. This arguably is the scenario which most concerns the regime. An Iranian version of a soft revolution could be a reality because of the convergence of a number of political and economic factors, and events, not all of them of the making of the regime. Economic data, even figures from the government itself, show that the regime has been unable to tackle the potentially explosive combination of inflation, which has resulted in falling purchasing power, and rising unemployment. To date those responsible for the economy have not been able to find the right combination of economic stimulus and reform. Furthermore with falling oil prices, the State does not have the resources to buy itself out of the crisis. It is entirely possible for an eventual implosion which may be triggered by industrial action by factory workers, supported by teachers and other civil servants, or the other way around. A soft response may embolden the opposition while a violent reaction would only postpone further action but could eventually backfire. It would be an ironic repeat of the pattern witnessed before Islamic Revolution as at that time the revolutionary operatives took full advantage of the dilemma the Pahlavi regime had in dealing with the national demonstrations and strikes which eventually paralysed the regime. Whereas political reasons have thus far failed to lead to regime change, or even to sustainable reform from within, the current "perfect storm" of economic woes may do so.

Any company contemplating an entry into Iran will have to ensure that the entry is clean of any political ties that would taint that investment. In case of a radical change or even in cases of a milder upset of the ruling order, as described in the scenarios above, the foreign company will need to demonstrate that contracts were won based on merit alone and not as a result of influence pedalling or special connections with the regime or any component or faction within the regime. This will be dealt with again in the recommendations section of the Paper.

RECOMMENDATIONS ON POSSIBLE ENTRY STRATEGIES

At the outset of any review for an entry strategy into Iran, there will need to be full understanding and recognition that even though the political risks are relatively high and the commercial terms are relatively unattractive, reasonable financial rewards are assured by the "Buy Back" Contract. It must also be noted that entry costs in terms of upfront payments, such as signature bonuses, are very low even though Iran offers a range of attractive E & P opportunities. Few of the other oil producers closest to Japan match this combination. Around the Persian Gulf, Saudi Arabia, Kuwait and the UAE are not really open, in the same way, for the participation of Japanese firms in the upstream, and Iraq is still essentially a war zone. Further afield, in North and West Africa, or in Latin America, the opportunities are also relatively less attractive to Japan, due to a variety of political or commercial reasons. For example since the return of Libya to the fold, it is the U.S. companies that have been cherry picking the best blocks on offer. In Angola, development costs are high, as all the attractive prospects lie offshore. Venezuela is now consumed by resource nationalism. It is difficult to justify many other opportunities for Japan worldwide, especially on a relative basis. Accepting that Iran is a viable target and that the rewards are well worth the effort required, will assist in starting any initiative with a positive take.

Recommendations on possible entry strategies will be presented in full during the presentation of the Paper, in early December. A summary of the key considerations are noted below.

Understanding the attitudes and expectations of the key stakeholders: The most important stakeholder is NIOC and its various Directorates, and also its Subsidiaries and Affiliates. However they are not the only stakeholders. It will be crucial to research and understand the attitudes and expectations of other governmental bodies and other entities with which relationships will have to be built, such as the various Committees of the Majlis (the Iranian Parliament), the local authorities and the private sector as partner, as subcontractor and as supplier.

A comprehensive review of the full range of E & P opportunities: This comprehensive review of opportunities, both off the shelf and the review of other creative entry possibilities, as discussed in this Paper, ought to be followed by a ranking exercise matching the opportunities that are available and viable with those that are best suited for the participation of the Japanese companies. It should be that any proposal to NIOC that results from this exercise plays to the strength of the applicant company from Japan, and to the choices Iran would have in mind for their participation in Iranian E & P.

A full assessment of both risks and rewards: The assessment should be a comprehensive assessment of all risks associated with an investment in Iran's oil and gas. However that ought to be complimented by an equally comprehensive assessment of immediate benefits as well as future ones. The IOCs that are present in Iran today have stated that they may not like the package today but are hoping for a better investment climate and improved commercial terms in the future. They opted for an early entry, in the more difficult circumstances, in the hope that they would gain a competitive edge in the future.

Partnership possibilities with local companies and participation in Iranian owned projects: A full review of opportunities other than the "off the shelf" projects must be carried out to identify other opportunities to "buy into" existing projects assigned to and owned by Iranian companies. The review could also be extended to cover possibilities for "farm-ins" as a number of the IOCs may be looking to dilute their involvement and asset swap.

London, October - November 2008

Appendix I – List of the IOCs currently operating in Iran

The list below includes the name of the IOC, followed by the name of the License, whether it is an exploration block or a field development, and the date the license was awarded:

1) CNPC International Ltd - Masjid e Sulaiman Field - Awarded May 2002
2) CNPC International Ltd - Kuhdasht Block - Awarded June 2005
3) China Petroleum and Chemical Corp (Sinopec) - Yadavaran
4) ENI Iran BV - South Pars Phases 4 & 5 - Awarded July 2000
5) ENI Iran BV – Darquain Field - Awarded June 2001
6) Hydro Zagros Oil and Gas AS - Anaran Block - Awarded April 2000
7) Lukoil Overseas Holding Ltd - Anaran Block - Awarded April 2000
8) OMV (Iran) Onshore Exploration GmbH - Mehr Block - Awarded April 2001
9) Sociedad Internacional Petrolera SA (Sipetrol) - Mehr Block - Awarded April 2001
10) Repsol/YPF SA - Mehr Block - Awarded April 2001
11) ONGC/Videsh Ltd (OVL) - Farsi Block - Awarded December 2002
12) Indian Oil Corp - Farsi Block - Awarded December 2002
13) Oil India Ltd (OIL) - Farsi Block - Awarded December 2002
14) PTT EP Iran Company Ltd - Saveh Block - Awarded June 2005
15) Petroleo Brasiliero SA (Petrobras) - Tusan Block - Awarded July 2004
16) Repsol/YPF SA - Iran Mehr and Forooz Blocks - Awarded October 2004
17) Royal Dutch Shell plc - South Pars Phase 13 - Awarded December 2005
18) Repsol/YPF SA - South Pars Phase 13 - Awarded December 2005
19) Shengli Dongsheng Group - Zavareh Kashan Block - Awarded January 2001
20) Statoil SP Gas AS - South Pars Phases 6, 7 and 8 - Awarded August 2000
21) Total SA - South Pars Phase 11 - Awarded December 2004

22) Petroliam Nasional Bhd (Petronas) - South Pars Phase 11 - Awarded December 2004

Appendix II – Proposed selected reading on Iran

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Moin, Baqer. *Khomeini: The life of the Ayatollah.* I. B. Taurus, 1999.

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Sick, Gary. *All Fall Down: America's Fateful Encounter with Iran.* I. B. Taurus, 1985.

Zonis, Marvin. *The Political Elite of Iran.* Princeton University Press, 1971.