HOW COMPETITIVE IS THE IRANIAN BUY-BACK CONTRACTS IN COMPARISON TO CONTRACTUAL PRODUCTION SHARING FISCAL SYSTEMS?

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ABSTRACT: A country’s fiscal system is considered one of the most crucial parameters used by foreign oil companies in assessing competitiveness of exploration investment opportunities available in their portfolio. The purpose of this report is to review and compare the characteristics of the Iranian buy-back licensing agreement in the context of contractual Production Sharing system. The outcome from the analysis will be used in establishing the attractiveness of the buy-back contracts in encouraging investment in the energy sector of Iran.

LIST OF ABBREVIATIONS

- CIT: Corporate Income Tax
- GTL: Gas to Liquid
- ILSA: Iranian-Libyan Sanction Act
- IOC: International Oil Companies
- LNG: Liquefied Natural Gas
- LTEOSA: Long-term Export Oil Sale Agreement
- NIOC: National Iran Oil Company
- OPEC: Organisation of Petroleum Exporting Countries
- PSC: Production Sharing Contract
- PV: Present Value
- UK: United Kingdom

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1. INTRODUCTION

In the past two years, there has been a dramatic increase in world oil demand due to increase in worldwide economic growth, predominantly brought about by China and India. With the world demand for energy projected to rise in the future combined with continual decline in oil reserve discovery from the majority of non-OPEC countries, there will be steep demand for oil from OPEC countries, such as Iran. Furthermore the influence of Iran and other OPEC countries will become more prevalent in the near future unless there is an economically feasible substitute for oil.

Although the OPEC governments have the reserves to meet the required global demand, the general lack of internal funding, technical and project management skills will inhibit their indigenous national oil companies from efficiently developing these reserves. Furthermore, the energy sector in these countries generally faces fierce competition for scarce capital with other sectors of the economy which could result in an under-investment in the domestic national oil industry. This is certainly the case during low oil prices when government revenues are much reduced. As a result, this situation provides opportunities for International Oil Companies (IOCs) to provide the required services necessary as long as the governments provide an adequate level of legal, fiscal and political incentives.

Over the past decade Iran has been actively trying to position itself as an important recipient of foreign energy investment. Driven by the dependence of the Iranian budget on oil and gas as the source of about half of its revenues, and constrained by lack of financing and modern technology, the Iranian government has established a policy of favouring foreign investment. In July 1998 the government announced an ambitious program for foreign participation in 42 projects in oil and gas exploration, development and field rehabilitation with limited success. The imposition of the Iran-Libya Sanction

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1 Fesharaki, F. and Varzi, M. Investment opportunities starting to open up in Iran’s petroleum sector, Oil &Gas Journal, 14 Feb 2000, pp44-52.
Act (ILSA) in 1996, preventing United States (US) companies from doing business in Iran and lack of flexibility in the risk-service “buy-back” contracts offered by Iranians have contributed to this lack of success.

Iran has a long licensing history, which began in 1901 when D’Arcy Exploration was awarded a 60 year concession covering the entire country, with the exception of some areas in northern Iran.

A number of characteristics associated with these early concessions, such as the huge acreages committed for long periods, lack of government control and the traditional low returns to government via royalty system were criticized by the oil producing countries. The opposition subsequently resulted in nationalisation of assets, formation of OPEC and development of alternative contractual agreements for awarding exploration and development acreage in majority of Middle East countries, including Iran.

Generally governments and oil companies can negotiate their interests in a petroleum development through concessionary and contractual arrangement. The purpose of this report is firstly to review the mechanism by which the oil producing governments secure economic rents from petroleum ventures under both contractual and concessionary arrangements and then compare the characteristics of the Iranian buy-back licensing agreement in the context of contractual system. The outcome from this analysis will be used in establishing an opinion about the attractiveness of the buy-back contract for potential investment in the energy sector of Iran.

2. CLASSIFICATION OF FISCAL SYSTEMS AND ALLOCATION OF ECONOMIC RENT

There are numerous risks involved with the exploration in the upstream oil and gas industry and as a result the host government must design its fiscal system carefully to strike a balance between its own objectives and take account of the risks undertaken by

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the IOCs. Generally the government has several objectives it wishes to pursue under the legal regimes\(^4\) such as to increase indigenous petroleum resources and reserves, have access to modern technology and foreign investments, ensure employment of its nationals and improve profit orientation in petroleum operations, just to mention a few. To meet these objectives, the host government will endeavor to maximize its share of petroleum rent through a wide variety of mechanisms such as taxes, royalties, and bonuses. The “Economic Rent” is defined as the returns in excess of supply price of investment, that is the returns over and above the investment necessary to appraise/explore, develop and produce from fields. The oil companies’ objectives are complementary in that by discovering the hydrocarbon reserves and producing from them at lowest cost and highest possible profit margin they can build equity and maximize shareholder wealth.

As discussed above, there are essentially two distinct petroleum regimes, concessionary and contractual agreements. The fundamental difference between these two systems is the host government’s attitude towards the ownership of mineral resources and level of control over its petroleum operations.

2.1 CONCESSIONARY FISCAL SYSTEM

In the concession system the government assigns the right to explore and develop its petroleum resources to the contracting company in return for a share of the proceeds. In most countries the government owns all mineral resources but the title is transferred to a company when it is produced. The US is an extreme example of concessionary system where individuals may own mineral rights. The method by which the governments secure economic rent from concessionary regimes is through payment of royalty and tax by the foreign oil company.

2.1.1 ROYALTIES

Royalties are a reward to the host government (owner) paid by the IOC (tenant). The significance of a royalty is that it is a tax on gross revenue, payable at a flat rate or sliding

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\(^4\) Onorato, W.T. Legislative Frameworks Used to Foster Petroleum Development. World Bank Publication, 1995
scale. In terms of tax neutrality\textsuperscript{5}, royalties are therefore quite regressive to oil companies because they make no distinction between profitable and unprofitable fields. They can leave too much with the investor when producing from high yield fields but discourage marginal field developments. However, it provides a guaranteed revenue stream to the government in the early stages of production.

\textbf{2.1.2 CORPORATE INCOME TAX (CIT)}

CIT is a tax on profits which more directly reflects on product price cycles and is normally paid by every corporate entity. It is at the progressive end of tax spectrum and would therefore be adopted by governments prepared to take a greater burden of risk in oilfield development projects. The CIT approach is actually targeted at economic rents and is therefore economically superior to royalties because it allows oil companies to deduct their investment costs from their tax base.

A further advantage of CIT is that it enables variability of oil prices, revenues and cost overruns to be taken into account and takes uncertainty away from the IOCs. But on the same token the government might change the tax rate at a short notice to minimize windfall revenues by the IOCs, as was recently observed in the United Kingdom (UK).

\textbf{2.2 CONTRACTUAL SYSTEM}

The other type of fiscal structure is the contractual system. Under the contractual system the government retains ownership of petroleum resources. Oil companies have the right to receive a share of the production or revenues from the sale of oil and gas in accordance with a Production Sharing Contract (PSC) or a Service contract. The Iranian buy-back is essentially a “risk-service” contract where the contractor will receive compensation for its investment in-kind (crude oil) rather than cash.

This following will review the key elements associated with both the PSC and the Iranian risk service buy-back contract in terms of economic rent recovery and associated risks with the petroleum operations.

2.2.1 PRODUCTION SHARING CONTRACT (PSC)

PSC was pioneered by Indonesia in 1967 to prevent IOCs from having rights to subsurface hydrocarbons. Under the Indonesian model the IOC is merely a contractor, and is responsible for funding and conducting all exploration and development activities under an agreed work program and budget. The precise extent of the risks taken by the private investor on the investment and costs depends on the terms of the sharing agreement and production bonuses. The key features of PSCs are:

- **Cost Oil**
  Where a fixed percentage of production revenue is made available for recovery of capital costs (with or without uplift), operating costs and exploration costs. The cost recovery ceiling varies enormously around the world and reducing its cap will guarantee the government an earlier share of revenues. It is common to have a 50% ceiling placed on proportion of quarterly production\(^6\) for reimbursement of these costs. There are different categories of depreciation schedules which are applied to cost recovery with potentially full depreciation of intangible exploration and drilling costs in the year incurred, while the tangible development costs being typically recovered over 5 years on a straight line basis. In terms of marginal field development, the more quickly costs are recovered the less likely are possibilities of marginal developments being deterred.

- **Profit Oil**
  Remaining oil production after cost oil deductions is considered profit oil and is split between the state and the contractor per predefined, negotiated percentage. Naturally the terms negotiated in the cost oil recovery discussed above will determine how soon and to what magnitude the profit oil becomes available for the two parties to share.

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\(^6\) Johnston. D. Risk Analysis & Decision Making in Petroleum Exploration Seminar, Dundee University, 10-14\(^{th}\) May 2004
Original production sharing schemes in Indonesia had a flat-rate split on profit oil and gas, however the more recent contracts are frequently based on progressive or incremental basis with the state share increasing with annual production.

The profit oil can be shared in any (or combination) of the following ways:

- Production Rate
- R-Factor – This is a negotiated figure set on the basis of the indicated ratios of cumulative revenues over the cumulative investment costs incurred.
- Contractor’s rate of return. This scheme is very flexible to variations in profitability from all sources, namely (a) oil/gas price movements, (b) variations in field sizes, and (c) variations in investment costs

### 2.2.2 RISK SERVICE BUY-BACK CONTRACT

The Iranian buy-back agreement is essentially a risk-service contract. Similar to the PSC arrangement, under the buyback contract the IOC will fund all investment costs and implement exploration and/or production operations on behalf of the National Iranian Oil Company, (NIOC) per an agreed scope of work. In return the IOC will receive remuneration for advances on these investment funds, operating costs, related bank charges with interest and the negotiated rate of return through NIOC's allocation of production. The remuneration will be from sale of petroleum up to maximum of 60% of production under long-term export oil sale agreement (LTEOSA) and will take effect upon:

- Successful completion of development activities
- Acceptance of facilities by NIOC and
- Achievement of agreed production level.
The LTEOSA continues until the contractor has fully offset its petroleum costs and the remuneration. The IOC is usually committed to a development period of 2-3 years and a 5-8 years remuneration/operation period.\(^7\)

The buyback contract was devised to encourage direct foreign participation in Iran’s upstream oil sector that had not existed following the Islamic revolution in 1979. The fiscal system was introduced to circumvent a ban by Iranian constitution on granting mineral concessions to foreign entities. For example, Article 43 that deals with economic and financial matters, prevents foreign economic “domination” over the country’s economy and Article 45 vests the disposition of public wealth and property, such as “mineral deposits”, solely in the hand of Iranian government.\(^8\) Furthermore, the constitution is interpreted to mean a ban on PSC system. As a result the government has been walking on tight rope by balancing the encouragement of foreign participation in its oil sector while retaining full control over its oil assets through granting buyback service contracts.

The first buy-back contract was awarded to Conoco in March 1995 for the development of the offshore Sirri A and E fields. The Conoco agreement had been preceded by a few years of negotiations with NIOC, gradually clarifying the terms of the buy-back agreement and satisfying the requirements of all the parties, that is, the private US oil company, the NIOC, the parliament's oil committee, the country's political organs, and the Islamic republic's constitution.\(^9\) However Conoco was obliged to withdraw from the project due to the US presidential executive order and the ILSA imposed on Iran. TOTAL Oil Co. which had previously been in competition with Conoco for the rights to the project signed the contract on in July 1995.

\(^7\) Brexendorff, A and Ule, C Changes Bring New Attention to Iranian Buyback Contracts, Oil & Gas Journal, 1 Nov 2004, pp24-32.
\(^8\) Bunter M. Islam, Petroleum development in North Africa and Arab Gulf, University of Dundee publication
\(^9\) Takin M. Iran seeks large volume of capital investment to boost upstream action, Oil & Gas Journal, 13 Sept 1999
Since 1995, upon opening its doors to the world, Iran has employed the “buy-back” framework for awarding upstream contracts with a total of 24 contracts (16 development, 8 exploration) awarded to Iranian and foreign oil companies. The commercial rewards in buyback contracts have changed gradually since the first contract was signed. The level of return afforded to contractors has reduced from 21% to around 15%. Such tightening of returns to the foreign oil companies reflects the level of competition for the quality assets in Iran and the level of return which participants are prepared to accept.

3.0 COMPARATIVE ANALYSIS BETWEEN PSC AND IRANIAN BUY-BACK CONTRACTS

There are clearly some common features between the PSC and the buyback agreements whereby the host government will:

- Maintain management control over the petroleum operation while the foreign oil company, acting as the contractor, will be responsible for the execution of these operations in accordance with the terms of the contract
- Retains full title to oil in the ground throughout the life of the contract, however offers IOCs a mechanism to book their remunerated hydrocarbons as proven oil reserves
- Procure title to equipment purchased or imported into the country by the contractor as part of the project investment.

Also, both types of arrangement will require the contractor to provide all necessary capital, equipment, technology and skills and bear the exploration and development risks, per approved work program.

The following table provides a comparative summary between PSC and buy-back contracts in terms of the risk sharing associated with petroleum operations.

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10 Wood Mackenzie, Iran Upstream Country Overview, Nov 2004
<table>
<thead>
<tr>
<th>Type of Risk</th>
<th>PSC</th>
<th>Equity Buy-Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development Cost</td>
<td>Cost overrun shared according to cost recovery terms. Ceiling important in determining extent of sharing, especially in present value (PV) terms. Cost savings usually similarly shared.</td>
<td>Cost overrun risk fully on contractor. Both contractor and host Government benefit from cost reduction in present value terms.</td>
</tr>
<tr>
<td>Development Completion</td>
<td>Completion delay risks shared. Impact stronger on investor in PV terms</td>
<td>Completion delay risks largely on contractor. Postponement of cost reimbursement and fee. Risk of extending beyond amortisation period. Early completion benefits shared.</td>
</tr>
<tr>
<td>Reserves</td>
<td>Upside and downside risks shared according to cost recovery and profit oil sharing terms. Contractor feels impact strongly in PV terms.</td>
<td>Contractor bears substantial reserves risks in early part of field life. These can slow or accelerate cost reimbursement and fee. Risk of extending beyond amortisation period. Reserves risks also affect size and timing of state revenues. After contractor leaves all reserves risks with state.</td>
</tr>
<tr>
<td>Production</td>
<td>Generally as for reserves. Levels of production determine profit-oil sharing in many PSC’s.</td>
<td>Generally as for reserves. Decline rate risks largely on host Government.</td>
</tr>
<tr>
<td>Operating Cost</td>
<td>Shared according to cost recovery provisions.</td>
<td>Shared. Contractor bears some risk relating to timing of reimbursement.</td>
</tr>
<tr>
<td>Oil Price</td>
<td>Shared according to cost recovery and profit oil sharing terms.</td>
<td>State bears greater share of risks. Limited sharing by contractor through effect on timing of cost reimbursement and fee.</td>
</tr>
<tr>
<td>Decommissioning</td>
<td>In modern PSCs shared according to (a) cost recovery terms and (b) any special Trust Fund or escrow account terms.</td>
<td>Generally borne by state. Contractor should have departed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Maximum Field</th>
<th>PSC</th>
<th>Equity Buy-Back</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Recovery</td>
<td>Generally contractor is given encouragement through PSC terms to maximize field economic recovery and search for and develop satellites. Terms usually on contract area basis.</td>
<td>Contractor not involved for field lifetime. State company (NIOC) has to undertake this function. Will contractor design producing system with maximum economic recovery in mind?</td>
</tr>
<tr>
<td>Cost Consciousness</td>
<td>Some PSC terms with very high marginal rates of Government take (profit oil share) can discourage cost consciousness.</td>
<td>Contractor has very strong incentive to keep costs down.</td>
</tr>
<tr>
<td>Technological Innovation</td>
<td>Contractor generally has reasonable incentives to innovate. Risks shared through cost recovery terms.</td>
<td>Contractor may not have strong incentive to take innovatory investment risk. Penalty for cost overrun may be severe.</td>
</tr>
<tr>
<td>Tax Creditability in Parent Company</td>
<td>Creditable tax paid directly or by national oil company can readily be incorporated.</td>
<td>In principle yes. Details unclear.</td>
</tr>
</tbody>
</table>

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11 Kemp A.G. A comparison of Production Sharing and Equity Buy-Back Contracts from Perspectives of Host Government and Investors, (University of Aberdeen)
The comparison clearly illustrates that there are some key shortcomings of the buyback contract in relation to the PSC arrangements which are highlighted below:

- **Higher level of risk taking by contractor**

Under the buyback contracts the contractor has to bear a higher degree of risk associated with development cost, project completion date, reserves and production rates. This is in contrast to PSC arrangements by which the host government shares these risks to a greater extent through compensation mechanism inherent in the cost recovery and profit oil features.

Also under a full-cycle exploration and production buyback agreements the partners are not guaranteed the right to develop the commercial discoveries made on the block, although a preferential rights for negotiation is provided. In the event of a commercial discovery, the partners will be required to bid against other interested parties for the development phase, utilizing the buyback agreement. This is a total contrast to a PSC arrangement by which the parties have the right to explore and develop the discovered resources per the original terms of contract. If exploration does not lead to a development the contractors will meet the full exploration cost, as is the case in an unsuccessful exploration PSC.

The new buy-pack contracts proposed by the Iranian government has the elements of risk and reward by which additional incentives are provided for performance according to and beyond the targets agreed but conversely there will be encouragements (penalties) for failure to deliver according to these targets.

- **Fixed rate of return :-**

Under the buyback contract the oil price risks are borne to a large extent by the government as opposed to the PSC contract in which the contractor has relatively more risks. Furthermore the fixed rate of return does not provide any incentives for the IOC to improve total returns from project, such as discovery of additional reserves, employing enhanced oil recovery techniques, and introducing cost saving measures below the contract specifications and optimising production targets. The fixed return may however be
advantageous for a risk averse IOC, especially when there is a perceived view of future low commodity oil prices.

- **Short contract life:-**
  Buy-back contracts are generally designed for 5-8 years, which is fairly short term in the context of the traditional upstream contracts, especially for natural gas development. With short duration of contract there are no incentives for the IOCs to introduce measures to maximize life of field. The short time period before the departure of the IOC does not provide flexibility in the contract and hardly creates mutual trust between two parties.

- **Transfer of capital and technological skills:-**
  The short contract duration will limit the extent by which the IOCs employ their latest state of art technology, only to see it taken over by the Iranian side when developmental phase ends. This is a real problem for technology starved country with second largest gas reserves in the world. Iran has a lot to learn in terms of gas technology, especially if it wants to enter into the Liquefied Natural Gas (LNG) market and/or gas to liquid (GTL) transformation and marketing.

- **Transfer of management skills:-**
  This is where the buy-back concept suffers from its greatest single shortcoming. There is no doubt that there is immense expertise existing in the Iranian oil & gas sector. However, Iran has been isolated from rest of world for 20 years and needs to get up to speed with the tremendous changes in the international oil industry. The key to optimal development of projects is the harnessing of human resources and skills. Transferring technology is one thing; utilising it in optimal manner is another. The transfer of such skills takes years and would be more likely if upstream contracts were signed for a longer period of time.
4. IRA NIAN GOVERNMENT POSITION REGARDING BUY-BACK CONTRACTS

Iran is one of the most geologically prospective countries in the world. Iran is OPEC's second largest oil producer and holds 10% of the world's proven oil reserves\textsuperscript{12}. It also has the world's second largest natural gas reserves after Russia. These giant onshore and shallow offshore fields combined with an efficient infrastructure have meant that the development costs associated with these fields are far less than other regions of the world\textsuperscript{13}, thus making it an attractive province for long-term foreign investment.

The Iranian government’s primary objective is to meet a number of macro-economic targets which affect the economic, social and political objectives of the country. For example, the sustained high levels of population growth has caused budgetary problems for the government especially when a substantial proportion of oil revenues is committed in providing subsidies and benefits to its citizens. The overall cost of these commitments has increased sharply in recent years as more people are reaching retirement age and drawing pensions from their former government employers.

It is therefore of paramount importance for Iran to ensure that its legislative, regulatory and fiscal policies are stable, neutral and attractive enough to encourage desperately needed foreign investments and to ensure that the society receives a fair share of the economic rent from exploitation of the finite hydrocarbon resources by the IOCs.

From an investor’s perspective, a stable fiscal regime would be characterized by flexibility of the system to investment cost and commodity price fluctuation as well as the security that government will not change the legislative and fiscal policies arbitrarily\textsuperscript{14}. In that respect, Iran has had a sound legal structure in place for decades.

\textsuperscript{12} EIA, Iran Country Analysis Brief, Aug 2004, \url{http://www.eia.doe.gov/emeu/cabs/iran.html}
\textsuperscript{13} Ismail I., \textit{OPEC Middle East plans for raising demand amid uncertainties}, Oil & Gas Journal, OGJ Special, 27 May 1996
\textsuperscript{14} Dalton, D.L., Taxation For Sustainable Mining, in Mineral Taxation and Investment, United Nations Seminar in Mining Taxation, Montreal, 1991
The Islamic Revolution of 1979 left most commercial laws untouched. Laws dealing with the protection of foreign investment, contracts, trademarks, patents, property and securities exist, in conjunction with a well-established Napoleonic commercial and civil code which defines various corporations, agencies, pledges and contracts. These administrative rules and regulations provide necessary clarity and transparency to be understood by both the tax payer and government officials, complying with necessary recommended standards.

Within the past few years, Iran has adopted several important legislative measures to further advance the attraction of foreign investment. For example:

- Ratification of Law of International Commercial Arbitration in 1997 based on the UNCITRAL model, allowing for modern international arbitration
- A new law regarding the registration of foreign branch and representative offices
- Amendment to existing law allowing the creation of 100% foreign owned banks and insurance companies in the Free Trade Zones.

Recently, Iran appears to have had second thoughts about buyback agreements and is reportedly considering substantial changes to the system. The addition of a limited risk-reward element under a revision to the buyback contract has not attracted the flood of foreign energy investment that Iran both needs and wants. As a result, most buyback projects in the past few years have gone to local state-owned companies such as Petropars and Petroiran Development Company (Pedco), which defeats the objective of attracting foreign investment into the country.

So far, Iran's Ministry of Oil has stressed that Iran will continue with buyback contracts to develop its oil and gas fields, arguing that the buyback agreements are the best method of serving the interests of Iran and attracting foreign investment. The numbers do not seem to confirm this position. Whatever the eventual fate of the buyback contract, the

formula is responsible for opening the way for Iran to mobilize foreign capital to raise its production potential by about 570,000 barrels per day and significant amount of gas and condensate from its giant South Pars field16.

5. CONCLUSION
The design and structure of fiscal regimes by host governments require a balance on a number of conflicting issues including but not limited to retaining a fiscally attractive oil and gas province but securing reasonable returns from the available economic rent. This report compared the Iranian buyback scheme with an alternative PSC agreement and outlined a number of drawbacks with the buy-back contracts in not offering the fiscal certainty that investors require. Under buybacks, it was illustrated that an IOC's position is more vulnerable and unless the investor is compensated by higher returns the participation in Iran’s energy sector would be slow.

From the contractor's perspective, there are major risks associated with the buyback contract in terms of the performance guarantees associated with production rates, development cost and project schedule. With the buyback contract, these risks are not compensated in the same manner as a PSC arrangement through cost oil and profit oil mechanism. The development costs are estimated prior to signing the buyback contract and generally due to lack of sufficient information on reservoir characteristics, reserves and productivity rates, there are inherent inaccuracies in the cost estimation. Under the buyback contract, if costs prove larger than originally planned the IOC bears the extra costs, which increases investment risks and lowers potential return on investment.

With a fixed rate of return, if the oil price drops to a level lower than the original forecasts, problems could arise that the amount of oil reserve available from the project might be insufficient to meet the costs of the project and the agreed return. As a result, IOC's have to take all the relevant factors into account before they enter the contract. The project risks are further exacerbated in the case of very complex oil fields where it is very

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16 Petrossian, V. Upstream Oil & Gas News, Oil & Gas Journals, 24th Sept 2004
difficult to foresee the exact level of investment and the development schedule required to meet the agreed performance targets.

The major drawbacks of investing in the Iranian petroleum industry through buyback agreements as outlined in this analysis make it clear that the buyback schemes do not present a reasonable alternative to the concession and PSC schemes used commonly worldwide. If the main goal of the Iranian government is to avoid foreign control of oil and gas resources, this objective could be achieved easier through more investor-friendly alternatives.

Putting aside constitutional obstacles on foreign investment in the upstream oil sector, the country has a comparatively stable regime and rule of law. However, point forward it remains to be seen whether in the current political environment real changes in buyback contracts aimed at providing greater flexibility to cope with unforeseen situations will be implemented. The rigidity of these arrangements is considered to be one factor that has hampered rapid infusion of capital, expertise and technology to meet the required oil and gas developments in the country. The ILSA of 1996 has further alienated Iran’s desire to attract technology and investment, especially post-September 11, 2001, terrorist attacks. The prohibition on the US companies from investing in Iran, opening up of Libyan upstream sector and potential near future opportunities for oil development in Iraq, will enhance vast number of business opportunities in the area which compete against opportunities in Iran. As a result, Iran is seeking development of better relation with the foreign countries including the US and should restructure its exploration buyback contracts to be more favourable and attractive to foreign participation.
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