Restructuring The Oil Industry in the Middle East

*By Paul Stevens**

The Context

This paper outlines some of the main developments in changes to the upstream oil sector in the Middle East. The focus of the paper is on three countries – Iran, Kuwait and Saudi Arabia. Restructuring has three dimensions. The reform and reorganization of the national oil companies (NOCs); the opening of upstream oil (and gas) to the international oil companies (IOCs); and finally talk (rhetoric?) about privatization of the oil sector.

The subject is clearly important. For the countries of the region, despite attempts at diversification, oil remains the key to economic health. In all cases, there are extremely powerful government spending multipliers which drive the economies. Fluctuations in oil revenues, driven by price change or export volume change, are directly and quickly reflected in the state of the general economy. Furthermore, the health of these economies is a crucial factor in their ability to meet the challenge of rising unemployment. An inability to meet the expectations of their growing young populations is likely to have serious political consequences.

For the oil consumers of the world, the region and the state of its oil sector also is key. It remains central to the prospects for oil supply and the stability (or otherwise) of oil prices. The Middle East accounts for around half of the world's traded oil and some two-thirds of proven oil reserves. If the consensus forecasts are to be believed –a very dubious option – this key role in world oil is likely to continue and the region's dominance increase.

The Drivers of Restructuring

The process of restructuring is being driven by a multitude of factors. Although these appear similar between the countries. In reality, they are subtly different. The factors can be classified under three headings –ideology; the need for capacity; and the need to lock-in political support.

Ideology

The driver of ideology is derived from developments in economic theory over the last thirty or so years. In particular, the areas of economics known as "theories of public choice" and "principal-agent analysis" have been extremely important. In essence, these ideas argue that bureaucrats in state owned enterprises such as an NOC will absorb rent for their own use to improve their working environment. This carries many implications. For example, if the objective of the bureaucrat is to maximize their budget allocation, and if what is produced faces an inelastic demand, greater efficiency and lower costs simply means smaller budgets. Taken to its logical conclusion, the implication is that the bureaucrat has a vested interest in being high cost and inefficient.

Such activities are disguised because the bureaucrats (the agents) are the only ones capable of knowing exactly how much activities cost. Those who are supposed to be controlling the agents –the politicians (the principals) cannot know precisely what is going on. The agents are allowed to expropriate rent because there are information asymmetries. It has been argued that the reason NOCs bought into the downstream outside their own countries was to deepen these information asymmetries. This would allow greater rent capture by the NOC. Despite the rather abstract and theoretical orientation of these ideas, they are remarkably powerful in the region. This is true even in Iran where ideas of western economics perhaps have less currency than on the Arab side of the Gulf peopled by recent graduates from U.S. and European university economics departments.

To be aware of the extent of these information asymmetries, the principals need much greater transparency in terms of explicit market transactions and benchmarking. To solve the problem, the principal needs accountability of the agent. This, of course, is what privatization is supposed to achieve. When the principal becomes a shareholder, it is a simple matter for them to check on the performance of their management by simply reading the financial pages of the papers each day to observe what is happening to their share price. Information asymmetries disappear under the transparency provided by the stock market.

In the context of restructuring the oil sector in the Middle East, securing IOC entry is seen as providing a benchmark against which to compare the performance of the national oil company. Eventually, the problem might be solved by an outbreak of privatization where the incumbent NOC must compete with the IOCs.

The Need for Capacity

The consensus view of growing dependence on Gulf oil receives widespread belief in the region. Indeed, in many quarters there is great complacency because it is believed eventually the world will need more Gulf oil. However, outside of Saudi Arabia, there is little current excess capacity to produce that oil. Indeed in both Iran and Kuwait, the sector is struggling to maintain existing capacity. In Iran this reflects financial constraints in the face of mature fields which urgently need major attention to maintain their recovery rates. In Kuwait, it reflects managerial constraints following the loss of much of the expatriate workforce in the sector after 1990. In both countries, there is also a shortage of technology in a context where the post 1986-technological revolution in oil production techniques has transformed the sector in other parts of the world.

One obvious mechanism to solve this capacity problem is to persuade the IOC's to provide the capital (needed in Iran but not in Kuwait) and the technology (needed in both Iran and Kuwait). While it is true that much of the "technology" can be provided by the service companies; in reality, what is needed is the IOC's ability to manage large projects and to coordinate and incorporate the technology. Some might argue this is also true in Saudi Arabia although Saudi Aramco would bitterly deny this.

The Need to Lock-in Political Support

Locking-in political support is relevant for all three

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countries although for rather different reasons. In Iran, in the early 1990s there was a growing view amongst some that it was time to try and end Iran's international isolation. One way of doing this, and to provide a counterweight against U.S. pressure, was to try and encourage IOC entry. In the case of Kuwait in the early 1990s it was clearly the prospects of putting the IOC's between Iraq and Kuwait City which prompted the opening of the northern fields to the IOCs. In Saudi Arabia, the issue emerged much later. It was concern in late 1996 and early 1997 that the Kingdom would no longer be able to buy U.S. arms on the scale which had become common in the previous 25 years. Hence the question arose as to what other mechanisms might be found to ensure continued U.S. support for Al Saud.

The Case Studies

Driven by these concerns. The restructuring took three forms. The reform of the national oil companies was intended to improve transparency, accountability and ultimately efficiency, to allow more rent to accrue to the state. The opening to the IOC's was intended to bring in capital, technology and political "links" and, at the same time, to provide a means of benchmarking. Finally, the prospect of privatization was seen as a means to improve oil sector efficiency although there was also an element of satisfying the fashion. Privatization had effectively become the mantra to chant as a means of paying lip service to economic reform.

Iran

The Iranian story begins in 1977-78 when OSCO –the main oilfield operating company - developed a major programme of secondary recovery. This was designed to try and prevent Iranian production –then at some 5.5 million barrels per day (mbd)- from facing serious decline. However, the plan, which required considerable quantities of natural gas for injection, was delayed first by the revolution and then by the Iraqi invasion and subsequent war. After the end of the war the National Iranian Oil Company (NIOC) began looking again at the plans as they struggled to meet their OPEC quotas. They realized that one solution would be to engage the IOCs to provide the capital and technology. This coincided with the decision to open Iran to greater links with the outside world. The two together, coming from different parts of the technostructure, created a serious effort to encourage IOC entry.

However, progress was slow. Initially Iran had very unrealistic notions of what the IOC's would find attractive. In the early 1990s the terms of the buy-back option, designed to get round constitutional constraints on foreign access to oil or gas, was simply unattractive to the IOCs. When this was realized and a more realistic bargaining stance was adopted, the process ran foul of the 1996 U.S. Presidential Executive orders and the Iran-Libya Sanctions Act which certainly slowed the process. Limited progress also occurred because the nature of the buy-back contract required careful negotiation and scrutiny of individual clauses. This process was made the responsibility of NIOC's International Affairs Department which simply did not have sufficient people with knowledge or experience to manage a large number of such negotiations. In 1997-98 Iran began to push the buy-back option with a series of high profile meetings abroad to allow IOC entry on a major scale but progress was still slow.

In 1999, NIOC was completely restructured. There were two problems with the process. First, it was done on an internal basis with no outside advice. The inevitable result was that internal vested interests caused many unhelpful decisions. Second, the decision was made to greatly fragment NIOC but with little or no thought as to how the bits would interact together. The result was serious problems for the oil sector which are still in the process of being sorted. Meanwhile the buy-back negotiations continued. Some agreements were signed but within Iran it was generally agreed, at least in private, that progress was disappointing. There was a fundamental problem. Neither side to the negotiations had much real enthusiasm for the buy-back concept. The IOC's felt they were unattractive because they offered little upside benefit and much downside risk. They went along with them because entry to Iran was perceived to be worth initial loss leaders. Elements in NIOC on the other hand felt that they were unattractive to the IOC's and rather cumbersome. These elements felt production sharing contracts would be more acceptable despite constitutional constraints. With these attitudes on both sides, each hoping for something better, progress in negotiation was inevitably slowed. However, for the time being buy-backs were the only game in town although after the new Majlis was installed in May 2000, there was a brief newspaper campaign suggesting that buy-backs might be superseded by some form of production sharing arrangements.

However, the new Majlis suddenly started to take angreater interest in the terms of buy-back contracts. The issue began to be used by the conservatives as a means with which to beat the liberal reformers. Voices were increasingly heard that too much was being given away. More information was demanded. At the same time, responsibility for the negotiations had been switched from International Affairs at NIOC to a new body – PEDEC. Inevitably, this delayed the negotiations even further as PEDEC sought to establish its position. In November 2000, the Oil Minister announced new terms for the buy-backs –the terms had continually been revised in recent years in an effort to raise greater interest from the IOC's. At the time, he heralded this as offering more attractive terms but in the event, many of the changes offered were actually disadvantageous to the IOC's.

The process is still ongoing but progress remains slow and is likely to fall foul of the internal political battle being waged in Tehran.

Kuwait

In the immediate aftermath of the liberation in 1991, the decision was taken to try and encourage IOC entry. Al Sabah wanted it to try and bolster their position vis a vis the allies. The Kuwait Petroleum Company (KPC) wanted it because they were desperately short of management skills given the loss of so many expatriates – several IOCs had been invited in to act as contractors as KPC tried to sort out the horrendous aftermath of the well fires. In 1994, a ministerial decision created a committee to investigate the options. Proposals emerged in the following year but these came under fierce attack from elements in the National Assembly and were actually rejected by the Supreme Petroleum Council (SPC). This was the ultimate formal arbiter of policy although it was

Al Sabah who effectively took any final decisions. In August 1998, KPC underwent major restructuring. The upstream (the Kuwait Oil Company) and the downstream (Kuwait National Petroleum Company) were created as separate divisions while the Petrochemical and Tanker companies were "prepared" for privatization. During 1998-99, details began to emerge of what became known as Project Kuwait which was a detailed plan for the IOCs to be involved in the further development of the Northern fields. This was part of a wider programme to try and expand Kuwait's crude producing capacity.

The culmination of this early process was a grand conference held in Kuwait in November 1999. This was intended by the government to provide a showcase of what was on offer. However, a consistent problem ever since the opening was mooted was the insistence of the National Assembly that any IOC involvement would require special legislation from the Assembly. Implicit in this was that the Assembly should have control of the process; a view strongly denied and resisted by the government. It was this debate which effectively dominated the conference. The IOC's attending were virtually ignored by all and the proceedings effectively turned into a debate over who ruled Kuwait.

The outcome was acceptance by the government of the need for legislation. However, this proved to be a recipe for disaster. Not only did the National Assembly compete and challenge the government at every opportunity. The government itself was divided reflecting deep seated family divisions. Legislation was put to the Assembly but the process of Committee review and subsequent debate was tortuous in the extreme. Opposition derived from several sources. There was a general hostility by many of the Deputies to any foreign company involvement in the sector. A legacy of the past history. From others, there was concern over the potential for corruption if decisions in the process were left to government. Finally, many Deputies, not understanding the nature of the modern international oil business, simply argued the IOC's could be kept on as contractors. The process of trying to formulate the legislation drags on with little sign of progress. Meanwhile, the IOC's are rapidly losing patience and it is not inconceivable that some may actually pull out of the process altogether.

Saudi Arabia

The process in Saudi Arabia effectively began in January 1997. Prince Sultan, Minister of Defence, visited Washington to discuss with the Saudi Embassy the possible consequences of significantly reduced arms purchases by the Kingdom from the U.S.. This gave an opportunity to Saud Al Faisal to get involved in the process. He was the Foreign Minister and someone very close to Crown Prince Abdallah who de facto was rapidly becoming ruler in place of the ailing King Fahd. In mid 1998, Saud Al Faisal produced a position paper on fundamental reform of the economic situation in Saudi Arabia. This very radical document which talked of "smashing icons" had as part of the strategy an opening to IOC involvement in the economy of the Kingdom in an effort to generate more jobs for the ever growing number of young Saudis entering the job market.

In September, CP Abdallah – who had accepted the position paper – visited Washington and invited the CEO's of a number of the major U.S. oil companies to come up with proposals for investment in the Kingdom.

By December 1998, the various offers and proposals began to come in. It was announced that investment in upstream gas was to be allowed but that oil, for the time being at least, was excluded. In September 1999, a special committee was created to asses these proposals. There was, however, a very basic problem. Saudi Aramco and Ali Naimi, the oil minister, (and former CEO of Saudi Aramco) had been horrified when they learned of the intentions to involve the IOC's. They felt hurt and insulted by the proposal. They feared the consequences if they were asked effectively to compete with the IOCs in a context where they, as the NOC, would be forced to take account of public interest issues which the IOCs could ignore. However, at the same time, only Saudi Aramco contained the expertise capable of seriously evaluating the IOC proposals. Representatives of the oil establishment dominated this evaluation committee.

Meanwhile, Saud Al Faisal was out of action due to illness and the process virtually stalled. In January 2000 he returned and the Supreme Petroleum Council was revived as the body responsible for policy in the oil sector and with control over Saudi Aramco's budget. This Council was dominated by non-oil establishment members. During the remainder of 2000, the various bids were evaluated. In May 2001, the successful bidders were announced. Memoranda of Understanding were signed to allow more detailed negotiations to proceed. However, it is becoming clear during these negotiations that Saudi Aramco is fighting a serious rearguard action to slow the process by constantly shifting negotiating stances on a number of issues.

Conclusions

In all cases, the process of restructuring and opening is stalled and delayed although the reasons differ between the three countries. Also the prospects for solution differ. Saudi Arabia will eventually open and the oil establishment will be tamed. Kuwait probably will fail to resolve the underlying issues which have more to do with the governance of Kuwait than oil. In Iran the outcome could go either way depending upon the result of the ongoing battles between the conservatives and the reformers.

Meanwhile, the world goes on and other options begin to open to the IOCs. The Caspian appears to be more promising than a few years ago. There is also the possibility of smart sanctions opening the Iraqi upstream. Vice President Cheney's Energy Task Force has also perhaps revived prospects in the U.S. upstream.

This raises the issue of what motivated the IOC's to respond to the offer of entry from the Gulf? There was a clear industry consensus that access to the Gulf upstream would be good for shareholder value in a world where it was becoming increasingly difficult to deliver such value. At some point, it is possible that the IOC shareholders might realize that access to low cost oil on difficult and unattractive terms may not be the panacea they first thought. It could be that by the time the Gulf countries sort their problems over greater access, IOC interest may well have significantly cooled.

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OPEC's Challenge

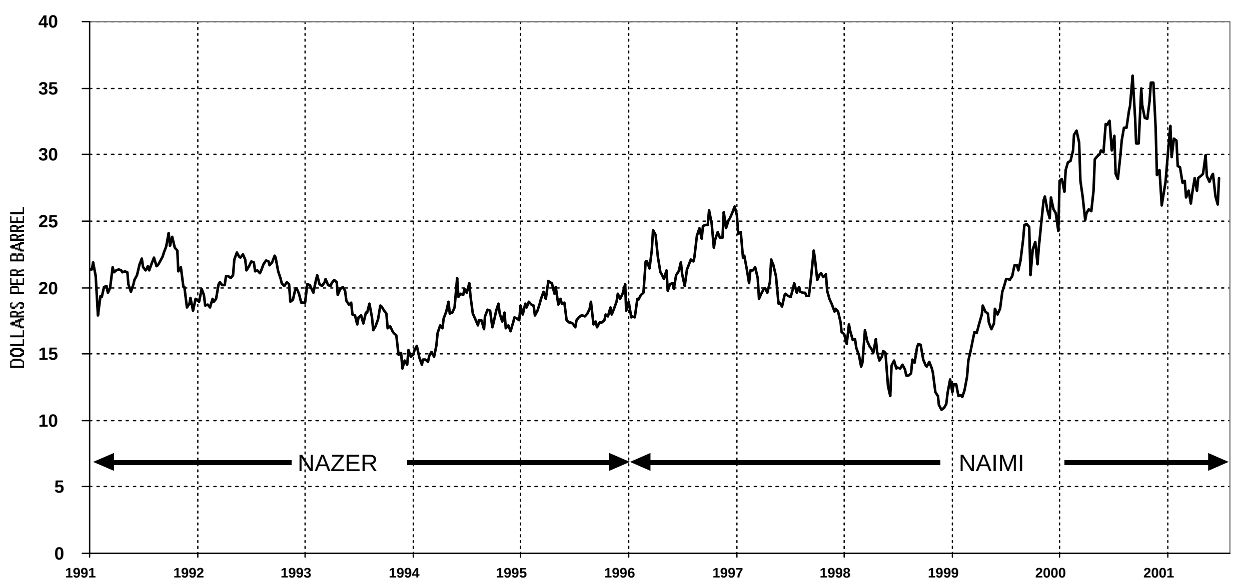
*By William R. Edwards**

OPEC's logo features "Cooperation" and "Stability". During the past few years, cooperation among the member countries has been outstanding. However price stability has been the worst we have seen at anytime during OPEC's history, except during times of major disruptions.

What is the reason for OPEC's inability to achieve price stability? It is certainly not from a lack of cooperation. The OPEC member countries have shown a remarkable ability to comply with the quotas that have been agreed upon at the various meetings. Compliance has been good both for production cuts and for production increases. It would be hard to expect a greater degree of compliance than what has been experienced. In spite of this, however, price volatility has increased rather than decreased.

In the time period 1991 through 1995, WTI prices ranged from a low of $14 to a high of $24, a difference of $10 per barrel. In the past five years, however, prices have varied nearly three times as much, from a low of $10 to a high of $37, a difference of $27 per barrel. Even within this range there has been an increase in short-term volatility. For example during the month of December 2000, there was a $10 per barrel difference between the low price and the high price for this month alone. Obviously the production adjustment mechanism that OPEC has adopted does not contribute to price stability. In fact, on the contrary, this mechanism leads to greater price instability.

WTI FUTURES PRICE



What is the fundamental reason behind this increased volatility? All of the superficial answers to this question can be ruled out. For example cheating is not a factor. And although we might attempt to put the blame on inaccurate forecasts or reporting, this can not be the case since price volatility has been great in both directions. In order to arrive at an answer we must look more carefully at the mechanism by which petroleum prices are determined.

It is well known and universally accepted that futures prices as determined by the New York Mercantile Exchange (Nymex) are a major factor in current petroleum pricing. In fact, correlations suggest that the Nymex now sets the price and the producing countries simply follow this price. We all recognize the extreme volatility that can occur on any commodity that is traded under a highly leveraged environment. When small moves in price create large demands on the financial assets of the participants, we can expect knee-jerk reactions on the price that these participants are forced to pay. Such is the case with oil futures prices on the Nymex.

The futures market has a free hand in pricing most of the time. Futures prices can move up and down at will, not effected at all by real world oil fundamentals. However, if inventory levels approach either a full or empty tank situation, the real oil world imposes its will on the futures market. If inventories are at tank bottoms, prices will exhibit an upward trend. If inventories are so high that more oil cannot be accommodated, prices will exhibit a downward trend. However, it is very rare for either of these circumstances to exist.

The case of completely full tanks has never existed in the past 40 years. Likewise, the case of completely empty tanks has never existed. However, tanks do not have to be physically empty for the "empty tank" situation to exist. If inventories fall to the minimum operating level, which, incidentally is far above tank bottoms, an upward pressure on prices will result.

This upward pressure on prices is not a subtle, smooth effect. It is an erratic, jumpy effect. This is what we now have.

Although reported inventories, worldwide, of three billion barrels sounds like a lot of free oil, this is not the case. When you factor in tank bottoms, pipeline fill and tanker capacities,

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the three billion barrels turns out to be a minimum requirement. Thus, practically speaking, three billion barrels is "empty".

For purposes of illustration, let us look at the inventory situation in the United States. Commercial inventories of crude and product usually amount to about 1100 million barrels. The normal seasonal fluctuation is about 100 million barrels. This is shown in the figure below where commercial stocks are shown for the past twenty years.

The years 1995 and 1999 stand out in this chart because the inventory levels dropped in those years to the 900 million barrel level. Each of those years produced a significant increase in price in the next year. The year 2000 performed similarly. And the erratic price jumps that we are now experiencing are confirming again that the 900 million-barrel level for the United States represents "empty tanks". Thus it should come as no surprise that OPEC's production cut in the 2001 winter should create a surprisingly sharp run-up in prices. Had not President Clinton transferred 30 million barrels of oil from the government's emergency reserves into commercial storage during the fourth quarter of 2000, the price rise would have been even more spectacular.

The OPEC production restraint, by definition, creates an "empty tank" environment. From OPEC's standpoint, the resulting upward price trend is a desirable result. However, the concomitant elimination of operating cushion adds to the erratic, sharp moves already characteristic of a futures-driven market. This is the reason for the increase in volatility since OPEC decided to control prices through the mechanism of production restraint.

It is popular for oil producers to place the entire blame for the current extreme price volatility on the futures market. While it is true that the futures market contributes greatly to the magnitude of the price swings, it is inappropriate to place the entire blame for this situation on oil futures. Further, had not the pricing function been relegated to the futures market in the first place, the role of the Nymex in this increase in volatility would never have been a factor.

OPEC must return to a system that allows a consistent and adequate supply of crude oil without the imposition of supply restraints. A workable operating cushion must be allowed to exist. It is easily understood that if inventories are near tank bottoms, or at the operating minimum, any unexpected bobble will drastically affect prices. In order to avoid this price instability, the customer must feel a sense of confidence that the oil will be there when he needs it. The function of price management is essential, but it must be conducted as a separate activity from supply management and must be conducted within the framework of a smoothly functioning and reliable supply system. Returning to such a system is OPEC's challenge.

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