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Seismic for Iran's Tosan to Get Underway

The 3D seismic of the exploratory project of Iran's offshore oil field of Tosan will start by late June 2006.

The tender for the 3D seismic of the field was held in July 2005 and the Norwegian Fugro Geoteam was declared the winner; however, given the tight market for seismic vessels, the operation was postponed until after April 2006. Fugro is to start the seismic soon and complete it by mid August this year, using its Geo-Baltic seismic vessel. The operation will cover an area of 510 sq km, encompassing "Sirri F" and "Taftan" fields.

In the drilling section of the project, some two exploratory wells are to be drilled. Early Feb this year, NIDC was declared the winner of the tender for the job, but the relevant contract has yet to be signed.

Mahmoud Mohades, director of Exploration Department of NIOC has expressed hope that NIDC would meet its commitments in carrying out the drilling operation by allocating its Shahid Rajayie drilling rig for the purpose.

The contract for exploration of Tosan block was signed between NIOC and Brazilian Petrobras in July 2004. The minimum financial commitment of Petrobras in the contract was $31.440Mln in 42 months, which, in case of mutual agreement, could be extended by another 18 months and adding $10 Mln to the contract value.

The 6300 sq km Tosan block is located in the Persian Gulf waters, south and southeast of Qeshm Island and south of Bandar-E-Lengeh.

NISOC to Develop Six Oil Fields Handled by PEDEC

Control of the project to boost the production capacity of six southern oil fields of Iran has been taken away from PEDEC and given to National Iranian South Oil Company (NISOC). The fields are: Karanj, Parsi, Shadegan, Pazanan, Gachsaran and Bangestan layer of Maroun.

The production-boosting project was previously planned to cover eight fields. And since the deals for boosting the production of Mansouri and Rag-e-Sefid oil fields were signed earlier, the two will not be included in the task now assigned to NISOC.

NIOC has asked NISOC to complete the relevant paper works and file transfer affairs with PEDEC by mid June and then prepare the executive plan of production boosting project for the six fields by mid July this year.

NISOC is likely to establish a "Management of Development of Fields" department for the purpose.

PEDEC has already prepared the MDPs of the six fields and even held a tender for the FEED of Shadegan and declared Iranian Sazeh as its winner. The fate of this project in not clear under the new conditions.

Based on the MDP, prepared by PEDEC, Shadegan's production capacity is to be boosted to 80,000 from the present 48,000 bpd. Parsi was planned to have its production capacity boosted to 130,000 from the existing 90,000 bpd. The initial plan for Parsi was to raise its production to 150,000 bpd, but delay in the execution of the project has curbed that level by 20,000 bpd.

Karanj is planned to have its present production of 210,000 bpd boosted to 300,000 bpd.

As for Pazanan oil field, the boost in its production from the current 42,000 to 70,000 bpd will be coupled with the production of 1,700,000 cf/d of gas as well.

By transferring development of the said fields to NISOC, PEDEC will get ready to handle development of other fields such as Kish, Golshan and Ferdows.

Farsi Block Drilling to Get Underway

The drilling operation in Iran's Persian Gulf Farsi block will start in the near future because the offshore drilling rig "Kedanat", under the ownership of the contracting Indian ONGC, has arrived in the operational area of the block.

The drilling operation in this exploratory block was to start late 2004 but non-availability of the needed drilling rig had caused such a long delay.

The exploration contract of this block was signed between NIOC and a consortium of Indian ONGC, IOC and EIL in Nov 2002 and the task was planned to be concluded by Nov 2006.

The Norwegian Fugro has concluded the 2D/3D seismic of the project as well as their data processing/ interpretation and has also specified the locations of the wells to be drilled.

POGC Running Further Study on South Pars

Results of the tender held for the processing of the 3D seismic data acquired over 2,700 sq km of Iran's South Pars gas field, will probably be known by May 20th this year. The seismic operations aimed at obtaining more precise data of the volume of gas-in-place of the field. Until now the data were confined to what the field's earlier 2D seismic had produced.

The data processing tender was held early January 2006 and nine European companies were invited to bid in it.

Given that POGC required a high standard of processing of the 3D data that were acquired by the French CGG, it was first decided that only a European

firm would be chosen for the task. Later, however, the participants were asked to nominate an Iranian partner for the job.

Five companies seem to have submitted their proposals to the tender and POGC is expected to announce the results of evaluation of their bids.

According to Akbar Torkan, the POGC MD, outcome of the processing of the 3D seismic data will determine whether the number of phases earmarked for development in South Pars should remain confined to the 22 phases defined so far or additional phases would be required.

At present, the first five phases of South Pars are on stream and are actually producing some 105 mcm/d of gas and development of another five phases are underway but the executive works for the development of the remaining twelve phases have not yet started.

Although the standard set for each phase of South Pars is the production of one bcf/d of gas, POGC has planned to have an additional 5 bcf/d of gas from Phases 6,7,8,11,12 and 13.

Pre-qual Tender for Serkan & Malekouh Production Unit

Iran's OEID, in charge of developing Serkan and Malekouh oil fields, has issued a pre-qualification tender for an EPC project to build a production/desalting unit of 22,000 bpd capacity for the fields. The value of the project has been set at Rials 44 Bln and $ 4 Mln, its location is Poldokhtar city of Lorestan province and 16 months have been foreseen for its execution. This tender was earlier planned to be issued late 2005.

Sarkan and Maleh Kouh, located in west Zagros region in Iran's Lorestan province. The project has been assigned to OEID with the aim of boosting the production capacity of Sarkan field from the current 1,500 to 4,000 bpd and of Maleh Kouh from 3,000 to 5,000 bpd.

Parsian 2 Gas Refinery Operational by Oct 06

Phase 1 of construction of "Parsian 2" gas refinery, which has made 88.5% headway as of June 15th this year, is to be commissioned early Oct 2006 at half the design capacity (15-20 mcm/d). The plant's full capacity of 37.5 mcm/d will be available early 2007.

"Parsian 2" is adjacent to "Parsian 1" gas refinery in Lamard region of Iran's Fars province. Homa, Shanul and Varavi gas fields will be supplying the feed of the refinery.

The Engineering Design and Procurement sections of the project are reported to have so far progressed 97.5% and 90.5% respectively.

Phase 1 of "Parsian 2" refinery, the executive works of which started in April 2004, was to be completed in Oct 2005. The yearlong delay in the project has been caused by non-availability of required equipments in time. The workscope of the Phase consists of Condensate Stabilizer and Dehydration Units.

Phase 2 of this project, construction of a C2+ Recovery Unit, has not yet entered its executive stage, though its basic engineering design has already been concluded.

Development of Iran's Doroud Field Nearing Conclusion

Development of Iran's offshore Doroud oil field, aiming at boosting the production capacity of the field to over 200,000 bpd, will be completed in Oct 2006, says Fereydoun Modami, the project's manager with Petroleum Engineering and Development Company (PEDEC), adding: "The project has progressed over 98% so far and is nearing completion".

Based on the initial plan, the project was supposed to come on stream by September 2004 with the target production of 220,000 bpd of crude oil and 300-400 mcf/d of natural gas.

He said: "29 wells were to be drilled in this project, 14 of which are to be used for water/gas injection purposes and the remaining 15 will be of production type".

Elaborating further, Modami added: "Drilling of 27 of the said 29 wells have already been completed and in fact ten wells are already in production".

Putting the completion date for drilling of the remaining two production wells sometime in Sep this year, he explained: "Once the wells are ready, the production capacity of the field will be raised by 80,000 bpd".

According to Modami, completion of the development of Doroud field would also increase the volume of its recoverable crude oil from the current 1.5 to 2.5 Bln barrels.

He concluded: "Injection of some 270,000 bpd of water and 120 mcf/d of gas into the reservoir will allow for the intended rise in the production of the field".

The current production capacity of the crude oil from each well of the field is 7,000-7,500 bpd and two offshore wells of Doroud have been producing oil since early Q2 of 2002.

Gasoline Supply in Iran, a Tough Mission to Manage

National Iranian Oil Refining & Distribution Company is expected to have a plan ready by 20th May this year for 'Management of Gasoline Supply' in Iran, based

on which decision is supposed to be made on whether gasoline should be rationed this year or its import should continue unabated.

The $ 2.5 Bln budget allocated by Majlis for its import for the duration of the current year will only last until early August and if no further fund is made available, there will hardly be any alternative to the rationing of gasoline supply in Iran's domestic market.

On the other hand, Kamal Daneshyar, head of Energy Commission of Majlis, has maintained that rationing of the fuel will not be possible unless and until some 25 preconditions (including expansion of public transport system) are met, which he believes will take at least two years.

The budget law of this year has allowed the Govt to invest $ 5 Bln to expand Iran's public transport system, $ 4 Bln of which will have to be obtained via foreign financing schemes. The law has also required the Govt to build 400 CNG filling stations across the country by March 2007. But Sourena Sattari, head of Iran's Fuel Conservation Organization, believes that contract for building even 500 CNG stations could be signed but no more than 120 can be built by then.

Given the difficult task of attracting foreign financing for expansion of the public transport system in Iran, uncertainty over availability of fund to import gasoline for the remaining half of the year and the fact that no more than 120 CNG filling stations can be built during the year, 'Management of Gasoline Supply' could prove to be a very tough mission indeed.

Iran will not Sell Discounted Gas to India & Pakistan

Hadi Nejad Hosseinian, Iran's deputy oil minister in int'l affairs said: "Iran can not afford to export gas to India and Pakistan at subsidized prices ".

Elaborating on the issue, he added: "India and Pakistan artificially keep the price of gas low in their local markets by controlling them and paying subsidies. For instance, one million BTU worth of gas, the global price for which is around $ 9, is sold at half the price in Pakistan. But, petroleum products are sold at their global prices plus tax".

He noted: "I predict that the said two countries and the like, such as China, will ultimately change their policy in this regard and liberalize the gas price and allow it to reach its realistic level. In which case, only the State-run companies in India and Pakistan will be benefiting from the discount in the price of the natural gas export from Iran, and this will certainly not be welcomed by the Iranian people".

Nejad Hosseinian stressed: "Besides, India and Pakistan are asking for some 150 mcm/d of natural gas, but selling such a huge volume of gas to the two via pipeline has no justification for Iran and hence we can not meet this request".

He remarked: "Based on Iran's gas balance, the volume of the country's gas export is foreseen to reach 485 mcm/d in ten years' time, but already there is demand for around 1,000 mcm/d of Iran's gas through pipeline or in the form of LNG".

Companies Get Ready to Bid for Isfahan Refinery Upgrading

Iranian contractors along with their foreign partners are preparing to participate in the tender to be held for the 'upgrading' of Iran's Isfahan oil refinery. National Iranian Oil Engineering & Construction Company (NIOEC) had held the relevant pre-qualification tender in March this year and had asked the interested firms to submit their qualifying documents, in the form of consortia, by the first week of this June.

Since shaping up the needed consortia proved to be a complex affair for some companies, seemingly NIOEC will accept the documents submitted even after the initial deadline.

The workscope of Isfahan refinery's upgrading project consists of five packages, and the participants will have the option of choosing one or more of the packages and bid either in EPC or EP+C modes.

Qualified companies will have three months to submit their commercial/technical proposals for the project.

The five packages are:

Package A: RHU + RFCC + Management of the entire project

Package B: CDU + LPG + Interconnecting + Flare + WWT + Tankage + Offsite

Facilities + Rough Grading (Roads) + Management of the entire project

Package C: Utilities (Power Station, Cooling Towers, etc.)

Package D: DHDT (1&2) + AMN + SWS + SRP + FCC Gasoil Treater

Package E: H2 (1&2) + PSA

The contract for the basic engineering design of the upgrading project and preparation of its tender documents was signed with the Italian Technip late 2005 and an eleven-month period was set for its conclusion.

The exact financing mode for this $ 1.6 Bln project remains ambiguous, though 'Structured Finance' and use of Iran's 'Foreign Exchange Reserve Fund' are thought to be two options being considered for the purpose.

Deadline Extension for Tenders to Raise Iran's Gasoline Output

The deadline for submission of the proposals for the project to raise the gasoline production capacity of Tehran refinery has been extended by a month, to July 10th 2006.

The move was in response to the request of the participants in the tender, who have found faults in the tender documents prepared for the project.

The deadline for the submission of the proposals for the project to raise the gasoline production capacity of Tabriz refinery is very likely to be extended by a month to August 10th 2006 for a similar reason as well.

Same fate had befallen the tender of the project to raise the capacity of Isfahan refinery, the deadline for which was extended to July 11th 2006.

To surmount the problem of gasoline shortage in Iran, the new management of National Iranian Oil Refining and Distribution Company (NIORDC) raised some urgent plans in April this year for increasing Iran's gasoline production capacity. The officials of NIORDC intend to complete the different stages of the tenders of the urgent plans by Sep this year and announce the relevant winners.

Gas Refinery of Phases 6-8 of S.P Getting Ready

The pre-commissioning of the refinery of Phases 6-8 of Iran's South Pars gas field has started, reported the PR office of Pars Oil & Gas Company (POGC). The first stage of the pre-commissioning concentrates on the utility units such as boilers and nitrogen/compressed air production facilities as well as the water treatment unit.

Development of Phases 6-8 of South Pars consists of the following two stages:

The first stage aims at producing some 104 mcm/d of sour/dry gas for injection into Aghajari oil field, about 158,000 bpd of condensate and 1.6 mt/y of LPG, (propane and butane) for export.

The second stage aims at sweetening the gas yields of the phases for domestic use for at most a 20-day period in winter. The sour gas will continue to be injected into the oil field during the rest of the year.

Belgian firm may invest in LNG carriers for Iran

Contract for building ten LNG carriers for Iran in Bushehr has been signed between the Belgian EXMAR and the Iranian SADRA, reported Iranian news agencies.

The first vessel is foreseen to be handed over in 4.5 years, and then every six months one carrier will be delivered. The deal for the ten 150,000- cubic meter carriers is worth $ 2.4 Bln.

EXMAR has, however, linked the investment in the vessel building project to the condition that it would be declared the winner of the tender, to be held sometime in the future, for carrying Iran's, would be produced, LNG cargoes.

If the carriers are not ready in time, EXMAR will have to use its own vessels to carry the LNG cargoes.

Regardless of any hitch that may emerge in the LNG contract, a separate deal for construction of four LPG carriers is to be signed between EXMAR and SADRA. Sina Trading & Shipping Company of Iran is said to be the local partner of EXMAR.

Commerciality of Mehr crude under consideration yet

NIOC is still busy verifying the commerciality of crude of Iran's Mehr exploratory block. Meanwhile, the drilling operation in the block has been suspended.

The Austrian OMV, as the contractor of exploration of Mehr block, completed the drilling of the first exploratory well (Band-e-Karkhe 2) in Dec 2004 and consequently reported the commerciality of the well's crude to NIOC in July 2005.

NIOC has since been examining the submitted data but has not yet come up with a final comment on the commerciality of the block. Seemingly, NIOC requires additional information from OMV on the issue before arriving at a definite conclusion.

Based on the workscope of the project, OMV is supposed to drill three exploratory wells in the block. The Company started drilling of the second well in Moshtagh-e-Sharghi structure of the block in March 2005, but the job came to a halt in Oct 2005 because of certain technical disputes between the client and the contractor. Drilling of this well is likely to be resumed once the differences are settled.

As for the third exploratory well of Mehr block (Band-e-Karkhe 4), which is to be drilled in its northern part, preliminary works have been done and the drilling operation will start once the location of the well is specified.

No specific dates are available for the start of the drilling of the second and the third wells.

Oil price Surge:
Is There a Market Structural Change?

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ABSTRACT

Political situation in the Middle East, weather conditions, the strike and supply disruption in some producing countries, level of stocks, excess capacity in OPEC and non-OPEC, role of hedge funds, refinery bottlenecks, the imbalance of demand for light-sweet and heavy-sour crude oil, the hurricanes in the Gulf of Mexico among other factors were responsible for the recent evolution in oil market. Recently the attention has been more focused on the unexpected oil demand surge especially in China, refinery bottle necks, and very limited excess capacity which have strengthened the effect of fear factors in the market.

This paper discusses the issue of the recent evolutions in the oil market and tests the hypothesis of structural change versus cyclical school of thought. Considering the decoupled relationship between oil prices and GDP growth in OECD countries and China, slow response of producer to prices, building up of oil demand around new price tornado in OECD, among other factors, this paper concludes that the market may face a new structure which could digest a higher level of oil prices. With gradual adjustment in the whole supply chain and a negligible oil demand cool down , the core OPEC basket price is expected to decline softly and settle around 30$ per barrel in the long term.

Key words: oil market, structural change, cyclical school of though, oil price

1. Introduction

Complicated oil market with emerging of unexpected influential variables can not be easily formulated. Oil market is facing the ongoing probable structural changes. Whether this can be called structural changes or a new cyclical movement needs further investigation. In the early period of oil price surge (2004), professionals were discussing the situation based on the political situation and the latest available information under an uncertain environment in that time. But the analyses and conclusions were not convincing. The fear factor and political variables were weighting highly. One could not accept that the fear factor could be contributing up to 20 dollar for such long period of time. With the emergence of new data, the analyses in the literature were canalized toward the idea of an unexpected increase in oil demand and realization of refinery bottlenecks, lack of enough excess capacity and also imbalance of sweet-light and sour-heavy demand. The increase in oil prices continued in 2005 exacerbated with the effects of hurricanes Katrina and Rita.

Oil prices stayed high for a relatively long period of time which brought up the question whether we are in a new era for oil prices. Can we consider this oil price increase as a cyclical event or non-cyclical i.e. structural change in the oil market? There are notions of irrelevance seen in relationship between oil market variables such as oil prices, stocks, GDP growth, etc. Although it is early to testify the hypothesis of structural change in oil market, but one could find some clues to translate it to a non-cyclical movement.

This paper reviews development of the most important variables in the oil market such as, oil stocks, real and nominal oil prices, GDP in OECD and China, response of demand to price, and OPEC and non-OPEC response to oil prices. Section 2 discusses the issue of structural changes versus cyclical movement. Section 3 covers the analysis of historical oil price movement in the corridors

[1] . These paper doses not reflect OPEC views. The author is responsible for the content and conclusion of paper.

of mean plus and minus one standard deviation (M&SD). Section 4 reviews the historical relationship between oil prices and stocks. A simple model is developed to check whether change in direction of relationship is statistically meaningful. Section 5 introduces the idea of "price neutral zone". GDP response to high oil prices could delineate the economy digestive system. This issue is addressed in section 6. The effects of oil prices on supply side are consider by the effects on profitability of the whole supply chain among other variables. The lower supply side response to oil prices the lower downward price adjustment is expected. Section 7 deals with this issue. Last section concludes.

2. Structural change vs. cyclical

It is argued that the recent increase in oil prices is a cyclical movement and sooner or later the prices are landing to the previous long term level along with the disappearance of those reasons behind current surge in oil prices. It is believed that physical shortage due to unexpected booming demand especially in China, political situation in the Middle East and a spilover from other financial markets toward papers market have resulted the current situation. Regarding this view the current situation is perceived as cyclical. United States Congress (2005) harshly and incorrectly blaming OPEC for the recent development in the market and compares current price increase as another cyclical event similar to 1970s and believes that prices would practice the same steep decline. They believe the world is not running out of oil and this may be a first phase of another cycle.

On the other hand one could consider current development as a structural change in the oil market. The oil market was facing a relatively low average oil price for a long period of time. The average price during 1986 to 1999 was about $17.l2bbl. This has provided less cash and incentive for enough upstream investments. The result is the current dwindling oil production excess capacity. Market structural school of thought conveys the following points:

• Industry dose not intend to hold a big excess capacity. No one would like to bear the opportunity costs of excess capacity Therefore oil market will operate on limited margin of excess capacity. OPEC members have already paid opportunity costs of excess capacity in 1980s.

• Industry has been fueled by huge amount of cash. But the cash is more used for buying back the shares by major oil companies to support their share prices rather than to be invested or being planned for upstream and downstream projects. Although there is enough cash but there is limited access to reserves by legal frameworks or sanctions (e.g. Iran has plans to increase the capacity but are slowed down by US sanction). Considering the business as usual the oil production capacity would be gradually increasing but to a limited extent. This is in line with a less elastic response of OPEC and NON-OPEC countries to oil prices. The price elasticity of oil supply is very low, meaning a gradual increase of oil production in response to oil price increase. The "To BE" legal framework in upstream development of the four Persian Gulf tigers of OPEC (i.e. Iran, Saudi Arabia, Kuwait, and Iraq) would be very much similar to "AS IS" situation.

• Oil demand recently has less elasticity to nominal oil prices than before (or current real price elasticity of demand is less than before)

• The traditional relationship between the oil stocks and oil prices is broken meaning that even with excess oil supply and building up of stocks still the prices are increasing. This spells out that anxiety in the market, imbalance of demand for sweet-light and sour-heavy, bottlenecks of refinery capacity. These factors among other fundamental-oriented variables keep the oil price and petroleum stocks level a direct rather than an inverse relationship.

• Economies especially in China and OECD countries are not negatively responding to high oil prices in the short and mid term. This symbolizes a new digestive system for the economies. A lower negative effect of higher nominal oil prices on economic growth signifies the fact that oil demand growth rate will not be largely dampened.

• There is new neutral zone for oil prices in which at this higher level of oil prices the demand for oil is not sharply and inversely affected.

• The hurdle/planning oil price was $15 to $20 dollar. The expectation is changed and major oil companies considering 25$ to $30 in their new projects (Ghalib, 2005).

• The futures price of oil for up-to-6 years delineates upward adjustment while containing a weak backwardation. Although these higher prices adjusts downwardly with lower prices in the spot market but this high level of futures price spell out a new expectation for the players in the market (Berkmen et al., 2005).

• This high oil prices can be translated to tightness of the entire oil supply chain from upstream to the mid and downstream but not the "peak oil" concept (Franssen, 2005). Oil industry will witness "peak oil" in the next decades, and in between will practice many adjustments.

• Oil price contains information of fundamental and non-fundamental variables in different market situation. Considering this assumption one could compare the statistical features of oil price in different period of time. Notion of structural change could be derived if different statistical features exist.

[2] . Oil price in this paper refers to OPEC Reference Basket (ORB) price unless otherwise is mentioned. This basket dose not refers to newly Isfahan basket. For more on this see www.opec.org

If the above mentioned statements are valid, one could translate them as a non-cyclical evolution in oil market with the expectation of high oil prices. Although a concrete judgment needs to see at least next two years developments.

3. Oil price corridors

Three specific time intervals are recognized for oil prices during 1980-2005. As figure 1 shows oil prices in 1980-1985 has cyclical declining trend after a shock in price due to Iran's revolution. This period is characterized as relatively high average price with low standard deviation. Average price and standard deviation were about $3lbbl and $3.8bbl respectively. Second period i.e. 1986-1999 distinguishes by low average price and standard deviation with a cyclical movement around the core price. This cyclical behavior is inherent to oil market. Average price and standard deviation were about $l7bbl and $3.5bbl respectively. Except for 1991, Kuwait invasion, and 1999, Asia financial crises, oil prices are mostly hovering around the average prices in the corridor of average plus and minus one standard deviation. This period accompanies a considerable oil production excess capacity mainly created or held in early 1980s. The excess capacity is being used along the period.

Figure 1. Quarterly OPEC basket price

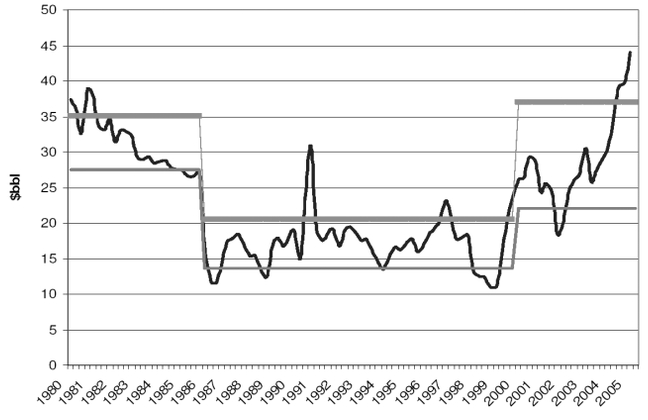


Table 1. OPEC quarterly basket prices

Period	1980-1985	1986-1999	2000-2005:2*
Average	31.3	17.2	30
Standard deviation	3.8	3.5	7.4
Excess capacity(mbd)	8.2	3.9	2.8

Source: oil prices, OPEC, DSD, 2005; Excess capacity during 1990-2005 ETA, 2005; excess capacity 1980 1989 author calculation

* Excess capacity in second quarter of 2005 is estimated at 1.1 mbd.

The most recent period i.e. 2000- 2005 has a specific characteristic. Average price and the standard deviation are high. The market is relied on a very limited excess capacity. The excess capacity is estimated at 1.1 million barrel per day in the second quarter of 2005. The oil price is out of the corridor in the year 2005. One can not ignore the effects of Hurricane Katrina and Rita and high fear factor for this behavior. Such a high average price along with high standard deviation single out the notions of a new structure. Removal of hurricanes effects along with gradual expansion in the entire chain of oil industry and gradual relaxation of oil demand would bring back the standard deviation at its long term level. Considering $4 as the new price deviation, it is expected that the prices are softly landing and will be hovering around $30. Therefore even with expansion of oil industry the average prices tend to a higher long term average than before, confirming a non-cyclical situation.

4. Prices and petroleum stocks

Simplifying the oil demand and supply balance in the world, it is expected that in every equilibrium point the excess supply goes to the stocks and the excess demand is fed by the stocks (i.e. Supply-Demand= D (stocks)). Stocks build up is translated as the excess supply and a notion of price relaxation. One could find such an inverse relationship historically although the relationship is not statistically strong. Figure 2 draws monthly oil prices and oil stocks within Janu}ary 1988 to June 2005. The simple correlation coefficients within 1988-2003 and 2004-2005 are -0.25 and 0.75 respectively. This confirms the fact that there was an inverse relationship between the two variables (although not strong) but it is broken recently and a direct strong relationship emerged. To confirm this statistically, a simple econometrics model with monthly data is estimated as follows:

Smple 1988-00**:** L(P)=1.38-0.12*L(ST)+0.06*D90+1.26*LP(-1)-0.38*LP(-2)

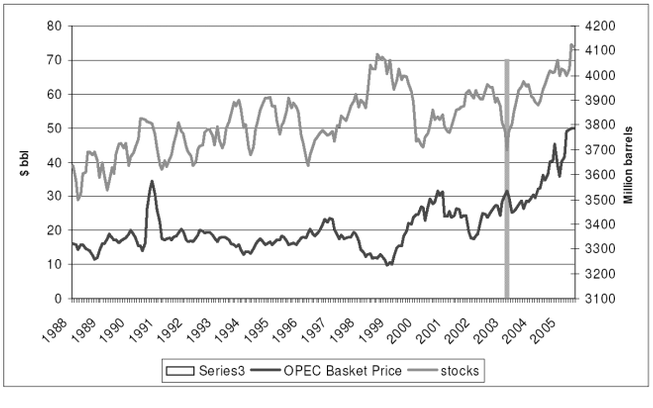
(0.76) (-0.58) (1.77) (15.81) (-4.8)

R^2=0.88

Sample 2003-05**:** L(P) = -5.7+ 0.73*L(ST)+ 0.92*LP(-1)

(-0.9) (0.90) (9.4) R^2=0.88

Figure 2. Monthly OPEC basket price and OECD petroleum stocks



Where P and ST stand for nominal OPEC Basket Price (OBP) and OECD petroleum stocks respectively. The term D90 is a dummy variable for year 1990 (Kuwait invasion). The letter L specifies variables in natural logarithm. The response elasticity of price to petroleum stocks is -0.12 in 1998-2000. Although the t-statistics rejects null hypothesis weakly but confirms an inverse relationship. The response for the recent two years is 0.78 confirming a strong direct relationship.

Based on these results and other facts and figures the crack in the relationship is confirmed but we can not translate it to structural change but could be considered as a notion of non-cyclical movement in oil market. While the market is well supplied but still there is imbalance between demand for light-sweet oil and heavy-sour and the fear factor is dominated the market due to very limited excess capacity, it is natural the stocks are building up even when the prices are staying high. Returns of gradual calm to oil market will hold back the weak inverse relationship between price and stocks level.

5. Oil Demand in the Neutral Oil Price Zone:

Since crude oil price forms a small portion of production costs in OECD and many other countries, GDP of these countries are not affected by changes in prices in a certain range of oil prices. Therefore oil demand, ceteris paribus, is not affected within this oil price range even at the higher price band of the zone. For example CERA believes on the zone of price neutrality which lies in the range of $15 to $30 per barrel (WTI). In this price range oil demand is largely unresponsive to oil price movements (Stanislaw, 2004). It means that world economy especially the OECD economies could digest prices in this range and the oil demand is determined by other factors. Oil demand in China and OECD are being used to test this idea. Figure 3 shows China oil demand is oscillating but there is an increasing trend for oil demand along with oil prices evolution. Figure 4 draws oil demand versus oil prices. It is obvious that oil demand in the range of 10-30 dollar is in line with an exponential trend during 1995-2003. This trend is concave in the range of $30-$50 oil prices during 2004-2005. It is concluded that oil demand for China has been less responsive to oil prices in the range of $10-$30 but more responsiveness exists in the range of $30-$50. Therefore the new Neutral Zone in China could be located in between i.e. in the range of $30-$40 per barrel.

A simple econometrics model shows that oil demand responses positively to nominal oil prices in China confirming a neutral price zone (no negative effects exist). In this model oil demand is a function of nominal oil prices and lagged oil demand variable. Elasticity of oil demand to nominal oil price[2] is shown in Figure 4. Regressions are rolled up and the periods are narrowed down in each try. The last regression uses the latest 16 observations. From this figure it is obvious that only in recent 16 months there is a negative response of oil demand to oil prices due to very high oil prices. Even at such high oil prices, the negative response elasticity is close to zero.

As shown in figure 6 oil demand follows a soft increasing trend in OECD countries. Although one could find many fluctuations around the trend line but the general understanding is that even at the higher prices the demand is hovering around 50 million

Figure 3. Monthly oil demand in China: 1995:01-2005:08

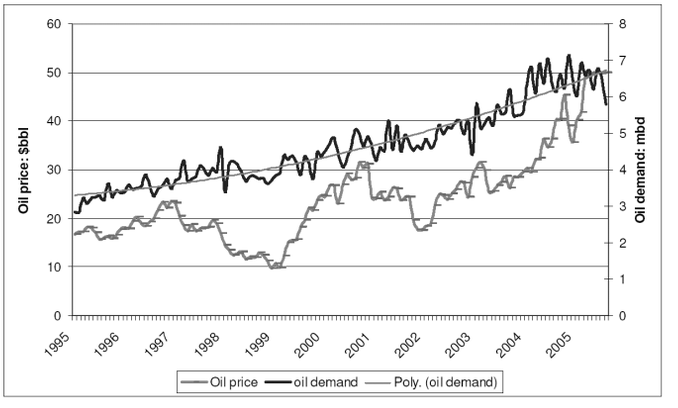


Figure 4. China oil demand vs. oil prices: 1995:01-2005:08

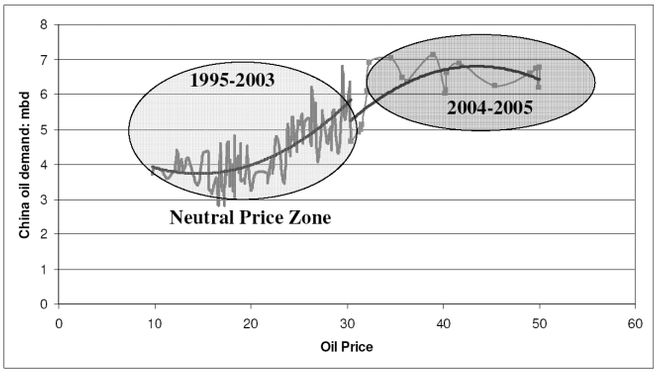
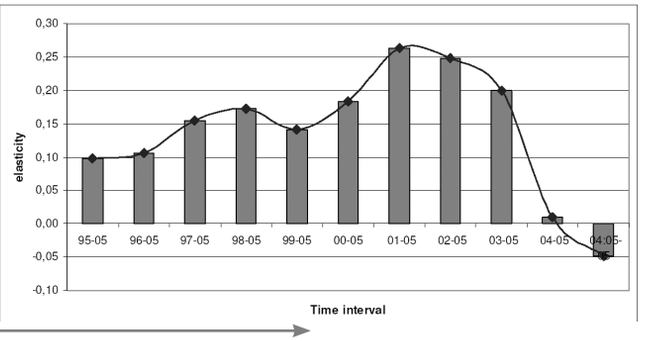


Figure 5. Response elasticity of oil to nominal oil price in China: rolled up regressions



[3]. In the literature the price elasticity of demand is estimated using real oil prices. The intension here is not to estimate price elasticity though but demand reaction to nominal oil price.

Figure 6. OECD monthly oil demand: 1995:01-2005:07

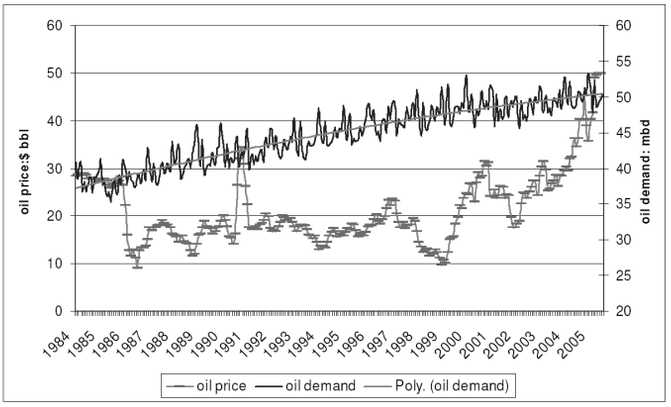


Figure 7. Neutral oil price zone for OECD countries (1984:01-2005:07)

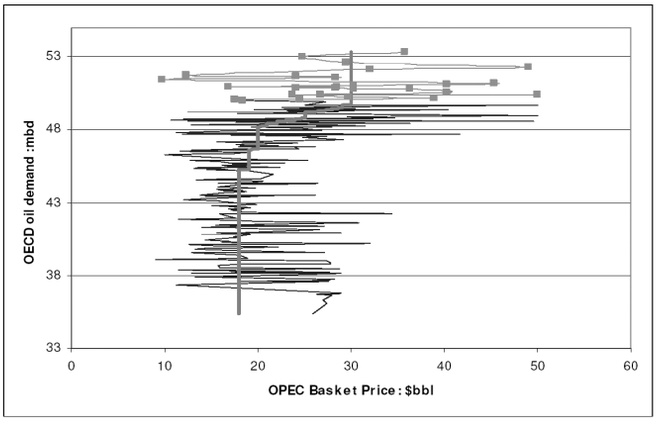
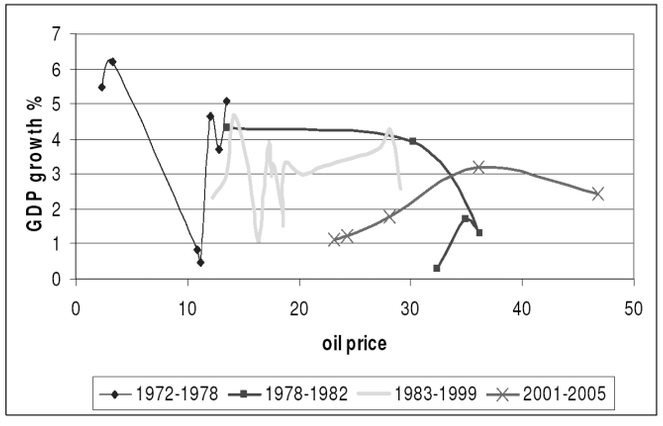


Figure 8. Oil price and OECD's GDP decoupling



barrel per day in the recent years. The most recent monthly changes in OECD oil demand compared with the same months in previous year show low negative effects of very high oil prices on oil demand. Figure 7 depicts how OECD oil demand is building up around the price corridors. Most of the oil demand evolution has been realized around the core price of $18 bbl. OECD oil demand above 48mbd has experienced a moving core price which is settling around $30 bbl. This can be considered as a notion of new neutral oil price zone centered around $30 for OECD.

The results are based on nominal oil prices while real oil prices are decreasing. Even with this surge in nominal oil prices the real prices are increased very softly (Mazraati, 2005). The real oil prices adjusted for inflation and currency depreciation is about $22.6 in 2005. This is $6 below the price in the base year i.e. 1980(OPEC, 2005) Depreciation of dollar against Euro, has provided cheaper oil for Euro-Zone. Therefore parts of OECD are importing oil with lower nominal prices thanUS(Slaibi et. al., 2005).

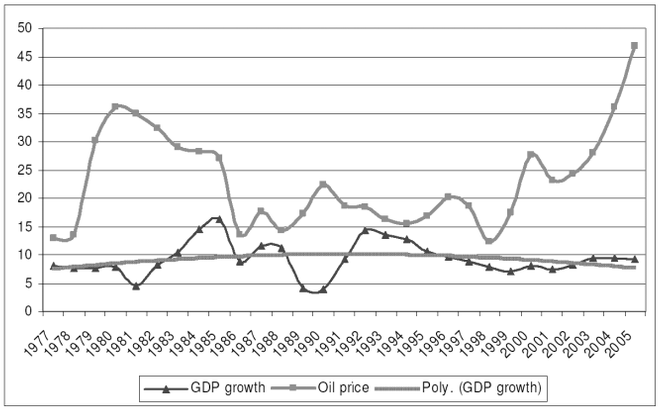
6. GDP and oil price decoupling

World GDP was based on very cheap oil in early 1970. After first price shock in early 1970 OECDs GDP responded negatively. The same response happened in early 1980 after the second oil price surge due to Iranian revolution. The only difference between these two periods is the range of price in which the economies have responded. The price range for the first period i.e. 1972-1978 was $2-$13 while it upgraded to $13-$36 in 1978-1982. The third period i.e. 1983-1999 is characterized with a wide range of oil prices ($12-$29) but a relatively stable GDP growth. OECD annual GDP growth was hovering around 3 percent. We can conclude that the decoupling of GDP and oil prices institutionalized in this period. From 2000 there is a new price range of $23-$46. The OECD real GDP growth response is completely different in this period with compare to others. Annual GDP growth increased along with oil price evolution and it is expected to decline softly if the prices are going to stay at this high level. The common feature for this historical analysis is that oil prices may have decreased the GDP growth but never made a negative GDP growth. Based on the historical analysis the OECD economies have developed a new digestive system in which it could stand higher oil prices. In this case at the average price of $30 economy will not be affected and the new long term oil prices could be settled around this price.

Chinese real GDP growth shows no inverse relation with oil prices. Simple correlation coefficient of annual real GDP growth and oil price is about 18% during 1972-2005 confirming decoupling of the two variables. There are some GDP inverse reactions to oil prices but the economy has grown on the average at 9% per annum despite of oil price levels (see figure 9). Therefore if OECD and Chinese economies which the latter has considerable role in recent oil price surges could stand at higher level of oil prices, one could conclude that GDP would derive the oil market. The prices could stay higher than the pervious historical long term averages. One should not forget that the GDP growth is responding differently to high oil prices in developing countries. The oil demand may be affected by very high oil prices in

these countries which in turn could relax the world total oil demand.

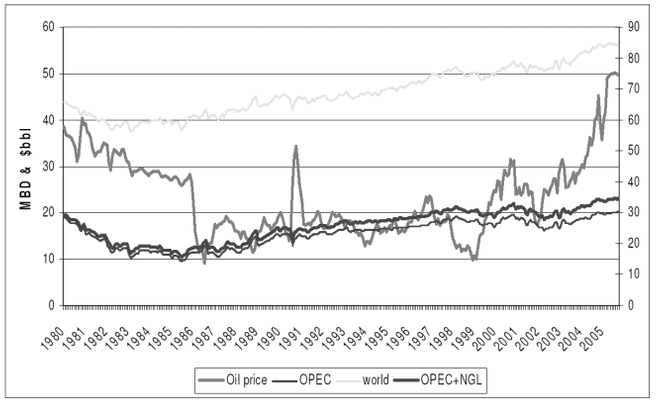
Figure 9. China GDP growth and oil prices



7. Supply side effects: OPEC and Non-OPEC response

A fast supply response to high oil prices can return calm to the oil market. Mixture of certain factors like availability of excess oil production capacity and crude type demanded in the market, along with many other technical factors in up and down stream forms very slow supply response to prices. Non-OPEC behaves commercially in the market. OPEC as a swing producer behaves differently. In some occasions OPEC behave based on, target revenue in which OPEC faces a backward bending oil supply curve. In other occasions like in recent 2 years OPEC acted based on competitive model. As shown in Figure 10, OPEC and Non-OPEC (producers) response to oil prices is very slow specially when the industry lacks enough excess capacity. The capacity building had a different behavior in 2000s with compared to 80s and 90s. The reason behind this can be outlined as follows:

Figure 10. OPEC and Non-OPEC oil production: 1980:01-2005:08



- OPEC paid huge opportunity costs in 80s and 90s for excess capacity. OPEC is not interested anymore in bearing such huge opportunity costs. Therefore the excess capacity will be limited to a certian extent.

- Oil majors have enough cash but prefer to use funds to improve the value of their shares through buying back the shares. Even investment increase in oil industry by oil majors is translated to supply with a long lead time. Expansion projects are time consuming.

- The oil prices stayed at a high level for a relatively enough long time. There is no consensus that oil prices are going to stay at high levels in the long run. The confidence is taking shape

- One should not forget that high oil prices increase cost of expansion in the whole supply chain of the oil industry. This may limit expansion in some areas.

To this end, oil producers respond positively but very slowly to high oil prices. The current situation is not comparable with the 80s and 90 due to lower levels of excess capacity. The current situation can not be related to the "peak oil" production issues. The current situation can be considered as an imbalance of supply and also an unexpected increase in demand for special types of crude. Using monthly OPEC and non-OPEC oil production within 1986:01-2005:06, elasticity of oil supply to price is estimated. Oil supply is considered as a function of nominal oil price and one-lagged oil supply variables. Table 1 contains the estimation results for a logarithmic functional form and OLS method.

Table 1. Elasticity of supply to oil prices

Period	1986:01-2005:06	2004:01-2005:06
OPEC	0.04	0.008
Non-OPEC	0.03	0.003
Producers	0.02	0.006

Although OPEC response is greater than Non-OPEC but still the elasticity is very small, confirming the low response to oil prices. The elasticities for the very recent data are even smaller. The positive elasticities confirm gradual upward supply adjustment in the industry.

It is expected that the excess capacity would increase gradually in the foreseeable future to a limited extent. The refinery margins are improved which would help the capacity building in the coming years (see figure 11).

8. Concluding remarks

Confirmation of a structural change versus a cyclical movement in the oil market needs affirmation of sustainable changes in some structural related variables. Such an affirmation is translated to this

Rationalization of Hidden Energy Subsidies

The Ninth Government's regional and provincial view on the state executive affairs is a matter worthy of attention. If this approach is studied in the energy sector, the government could adopt some strategies to save the energy and provide reasonable subsidies in the provinces with a regional view.

At present the country's energy sector receives its subsidy in one package. It is crystal clear that the privileged provinces and regions enjoy more subsidies than the deprived areas because the amount of subsidy allocated to a region, due to subsidized energy prices, is in conformity with that region's consumption.

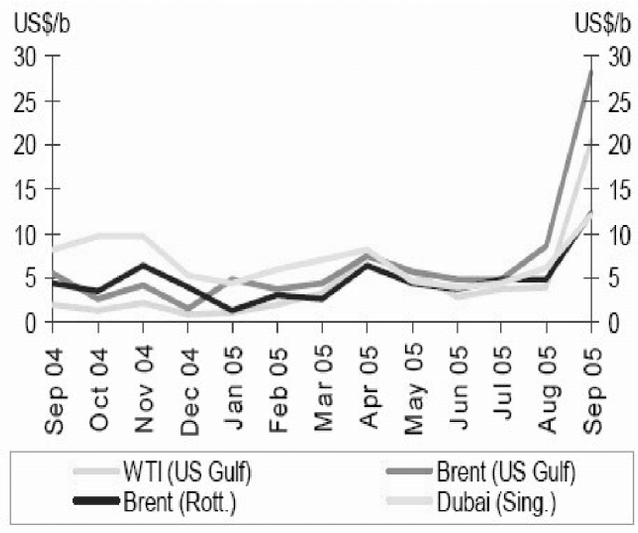
Since the aforesaid amounts are not well known (although it could be transparent), the state executive officials in different parts of the country have no motive for granting subsidies reasonably or exploiting them for activating regional potentials.

On the other hand, production and distribution of energy carriers, including oil products and natural gas are centralized and thus little attention is paid to regional features in their planning.

In other words, regional potentials, including optimization, saving energy as well as local non-fossil energy sources have been almost neglected while the newly established regional oil and gas companies could now help decentralize the affairs.

To this end, the data and statistics on energy consumption in various parts of the country are more or less available and even the consumption

Figure 11. Refinery margins



fact that oil prices are going to migrate from the traditional long term level to a new higher long term average.

• Higher average price along with higher standard deviation for a relatively long period of time characterizes the new situation in the market. With the gradual removal of oil industry bottlenecks the recent higher price corridor may be tightened. Even with the average price of $30 per barrel and $3.5bbl standard deviation (the realized long term standard deviation), prices will be hovering at a higher average level than before.

• The so-called inverse price-petroleum stock relationship is recently broken. This can not be considered necessarily as a notion of structural change. The price reaction elasticity to petroleum stocks during 1998-2000 is about -0.12 showing a very weak inverse relationship, while the null hypothesis is not rejected strongly. The most recent data gives a high positive direct relationship confirming the crash of the previous behavior. The inverse relationship will be restored while the demand on sweet-light crude is balanced and the magnitude of fear factor approaches to its previous historical level.

• Oil demand analysis in OECD countries and China (as the second largest oil consumer in the world) shows that the Neutral Price Zone is moving to a higher level. In 20-30 price zone the Chinese oil demand was fluctuating around the exponential increasing trend. In the $30-$50 though the demand is fluctuating around a logarithmic trend. The response elasticity of oil demand to prices shows that oil demand is neutral to higher level of oil prices. Only with the very recent high prices there is a very week negative response. For OECD countries the oil demand is building up with fluctuation around a new higher core prices. It is concluded that the neutral price zone is upgraded.

• Real GDP growth is decoupled with the oil prices in the range of about $15-$25. Even with the recent range of $25-$35 real OECD's GDP has increased on year-on-year bases in despite of price increases. This singles out a new era in which economy can digest higher prices and can be considered as a notion of structural change.

• The producer response to prices is very low and even with the most recent data is lower. This means a gradual expansion in the upstream. This slow response is seen in the whole chain of oil supply from the upstream to downstream. Even with better refinery margin, the refinery sector will be expanding gradually. These reactions along with the above-mentioned issues confirm that oil prices are expected to land softly at a new higher price level.

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An analysis of crude oil price differentials and investment implications

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1 Introduction

Oil prices climbed to record highs in late October 2004 following a relatively steep general upward trend since early 2003. Ahead of the occupation of Iraq, OPEC reference basket price (ORB) set a local maximum at $33.11 per barrel on March 10, 2003. It declined afterwards to a local minimum at $23.27 per barrel on April 29, 2003, and then started a rather monotonic upward trend, staying all the time well above the upper end of the OPEC $22-$28 per barrel price band since December 2, 2003, registering an all-time high of $46.61 per barrel on October 21, 2004.

Meanwhile, the gaps among the prices of crude oils of various qualities, that is, light and heavy, and sour and sweet, have also been gradually widening to unprecedented extents since early 2003. For example, the differential of average weekly prices of the benchmarks WTI and Dubai registered a local maximum at $6.87 per barrel in the week ending March 7, 2003 and a similar high at $6.84 per barrel in the following week, ahead of the hostilities in Iraq. The spread between WTI and Dubai then set local minimums at $2.90 per barrel and $2.29 per barrel in early May and late October 2003 respectively. The WTI – Dubai spread has been rising rather monotonically since November 2003 and with a much steeper slope since September 2004. The spread has set an all-time average weekly high at $16.86 per barrel in the week ending October 22, 2004. As another example, the differential of average weekly prices of Saharan Blend which is a light-sweet crude and Arab Heavy which is a medium – sour crude set a local maximum at $4.87 per barrel in the week ending 14 March 2003. It means that Saharan Blend was on the average $4.87 per barrel more expensive than Arab Heavy during that week. The price spread then declined to a local minimum at $-0.15 per barrel in the week ending May 2, 2003. Since then, the price differential between these two crude oils has generally been on the rise and has gained further momentum since early July 2004 when oil price began a steep increase. By the week ending October 29, 2004 the spread climbed to its all-time maximum at $18.04 per barrel.

The main purpose of this article is to explain the reasons behind the recent steep rises in crude oil price differentials. As these price spreads closely follow the trend in the actual crude oil prices, it is, as well, attempted to highlight some of the factors behind the recent developments in the crude prices. The article also examines the implications of these price developments on the investment decisions by refiners and producers, particularly by members of the OPEC.

Upon examination of the said topics, the article concludes that highly extended differentials are usually temporary and relatively short-lived phenomena. They could originate from fundamental factors such as imbalances in supply and demand of certain categories of crude oil or from non-fundamental factors such as geo-political concerns. The analysis of historical data demonstrates that the short-term spikes in differentials tend to gradually moderate and that in the long-term, the differentials are rather stable. The article also concludes that the current high differential environment provides an opportunity for the OPEC members to increase their share of the international crude oil market. This could be achieved by undertaking direct investment or encouraging other investors to invest in conversion facilities and sophisticated refineries capable of refining heavier and sourer crude.

The rest of this article has been organized as follows: Section 2 gives an account of some of the fundamentals of crude oil pricing in order to explain the origins of the oil price differentials. Historical data since 1990 are ex-

amined in section 3 to present a critical analysis of the longer term movements in crude oil price differentials. Section 4 reviews the developments in the oil market during the second half of 2004. An overview of the developments in the product market is presented in section 5. Section 6 covers an analysis of the world refinery situation. Current developments in the oil price differentials alongside investment implications are analyzed in section 7. Finally, section 8 presents some concluding remarks and suggestions.

2 The fundamentals

This section examines some of the fundamentals affecting crude oil prices to explain the origins of price differentials. It identifies the quality, the demand, the proximity to, accessibility by and marketability for the consumers as the three major sources of crude oil price differentials.

2.1 The quality

A large variety of crude oils with different qualities are produced in various regions all over the world. The quality of crude oil is measured by two popular parameters, i.e. the API gravity and the sulfur content.

A crude oil with higher API gravity is of a better quality and is lighter. In general, relatively larger quantities of lighter or more valuable petroleum products can be produced by refining lighter crude oil. A crude oil with API equal to or greater than 35 is called light crude. API gravity between 26 and 35 characterizes medium crude oils. Heavy crude are those with API gravity less than 26.

Similarly, better quality is associated with a lower amount of sulfur in a crude oil as this leads to easier and cheaper sulfur separation processes. Crude oils with less than 0.5% sulfur are called sweet. Medium sour crude oils contain about 0.5% to less than 1% sulfur. Crude oils with 1% or more sulfur are labeled as sour.

For example, the benchmark West Texas Intermediate (WTI), with API 40 and sulfur content 0.40%, is a light – sweet crude oil. The benchmark Brent, with API 38 and sulfur content 0.26% is also classified as light – sweet. The Dubai benchmark, however, is medium – sour crude with API 31 and sulfur content 2.04%. Among OPEC crude oils, the Saharan Blend from Algeria is an extremely light and sweet crude oil with API 43.60 and sulfur content 0.11%. Tapis, a Malaysian crude oil, is even lighter and sweeter with API as high as 45.50 and sulfur content as low as 0.02%. The Mexican crude oil Maya, with API 21.8 and sulfur content 3.33% is an example of a heavy – sour crude oil.

What is the quality mix of the actual world crude oil production? A review of the historical trend and pattern of world crude oil production during 1994-2003 shown in Figure 1 reveals that, at around 30 million barrels per day, medium – sour crude represent the largest share of global output, followed by light – sweet grades at under 20 million barrels per day. Despite slight changes, this trend has remained stable for at least the last decade up to 2003.

Figure 1: World crude oil production by quality (1994-2003)

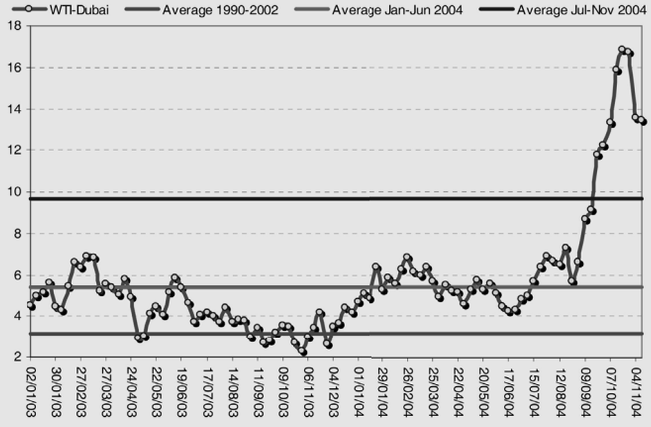
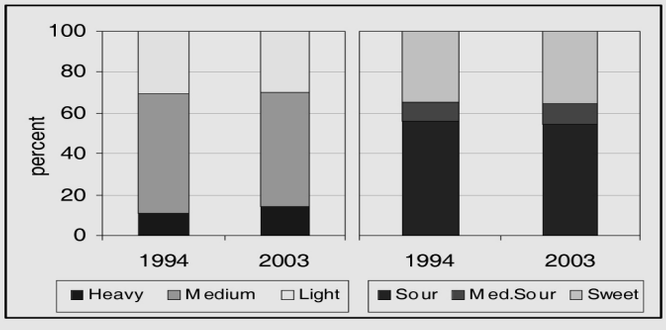


Figure 2 shows the ratio of crude oil production by grade and indicates that medium crude represented the largest share of global output at about 56%, while light and heavy grades followed with close to 30% and 14% respectively. Compared with 1994, heavy crude has increased almost 3% in the last decade, while light and medium crude oils experienced a decline of just over 1.3% and 1.6% respectively. The breakdown of 2003 crude oil production by sulfur content suggests that sour crude represented the largest share of world oil output at over 54%, followed by sweet and medium – sour grades with about 36% and 10% respectively. For the period 1994-2003, medium – sour and sweet crude oils saw an increase of 1.2% and 0.4% respectively, while sour declined 1.6%.

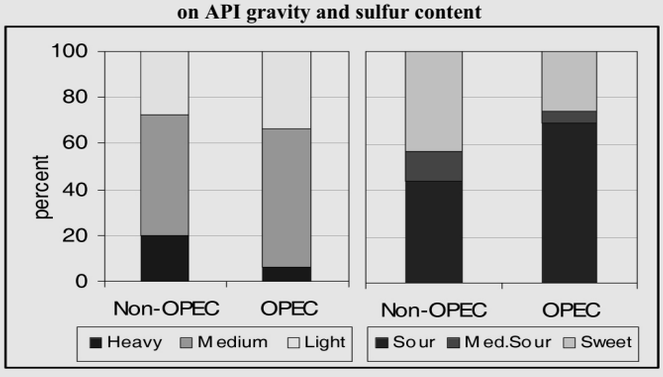
Figure 2: The ratio of world oil production based on API gravity and sulfur content (2003 versus 1994)



It is important to note that the above data covers global crude oil production in 2003, which represents 67.2 million barrels per day of 79.2 million barrels per day total world supply. It does not cover other contributors to the global oil supply, such as Natural Gas Liquids (NGL), non-conventional fuels and processing gains. OPEC crude oil production accounts for 27.0 million barrels per day of this figure, while non-OPEC represents the remaining 40.2 million barrels per day. Figure 3 shows

the breakdown of non-OPEC and OPEC crude according to quality.

Figure 3: The ratio of OPEC and Non-OPEC production in 2003 based on API gravity and sulfur content



2.2 The balance of supply and demand

The demand for the higher quality light-sweet oils is much higher than that for the lower quality heavy – sour oils. The reason is that the latter yield a larger proportion of premium products such as gasoline, gas-oil/diesel and jet fuel. These products comprise well above 60% of total world oil product consumption. The current quality mix of the crude oil supply, however, contains a high proportion of low quality crude causing an imbalance between demand and supply. This in turn leads to wider price spreads.

The recent implementation of more stringent oil product quality specifications such as average 90 PPM sulfur for gasoline in the USA and the expected implementation of similar measures such as 50 PPM for gasoline and diesel in the European Union as of the beginning of 2005 have contributed to further imbalance in the light – sweet and heavy – sour crude oil demand. Moreover, the main contributors to world oil demand growth in Asia, China and India, have also introduced euro II specifications which call for 500 PPM sulfur content for transportation fuel oil in 2004.

2.3 Proximity to, accessibility by and marketability for the consumers

Like in any other market, the transport costs, the accessibility and logistics, as well as the marketability play an important role in the oil market. The price of a crude oil is therefore affected by the cost of transporting it to the consuming locations, as well as by its quality and its demand level. If a crude oil is readily available or easily accessible, the so-called short-haul cargo, to a major consuming market, its price would be relatively higher compared with an even better quality crude oil which is produced in a geographically remote region, the so-called long-haul cargo.

As it is well known, the USA consumes more than 20 million barrels and imports more than 10 million barrels of oil per day, ranking first in both consumption and imports worldwide. We take three different crude oils which are imported in this market and we look at their price differentials with the US benchmark WTI. The Mexican crude Maya had a $14.08 per barrel average weekly differential with WTI in October 2004, whereas those of Saudi Arabian Arab Heavy and Arab Light were $19.53 per barrel and $14.32 per barrel respectively. Although Maya is an extremely heavy – sour crude oil with API 21.8 and sulfur content 3.33%, it has a relatively smaller differential with WTI compared to that of the better quality Arab Heavy with API 28.7 and sulfur content 2.79%. The heavy – sour Maya has even a marginally smaller differential with WTI compared with that of the much better quality medium – sour Arab Light with API 34 and sulfur content 1.78%. Table 1 presents the weekly average October 2004 WTI, Maya, Arab Heavy and Arab Light prices and differentials.

Table 1: Comparison of the October 2004 average weekly prices[1]

Average weekly October 2004 prices			
Crude	Price in $/barrel	Difference with WTI	
		$	%
WTI	53.32	-	-
Maya	39.23	14.08	36
Arab Heavy	33.79	19.53	58
Arab Light	39.00	14.32	37

What are the reasons behind the lower quality Maya being relatively more expensive in the US market compared with the higher quality Arab Heavy and Arab Light? Firstly, Maya is produced in Mexico, geographically closer to the US market, leading to lower transport costs and more accessibility. Secondly, Maya is more marketable because there are refineries and conversion facilities close by, dedicated to refining Maya and supplying the refined products to the US market.

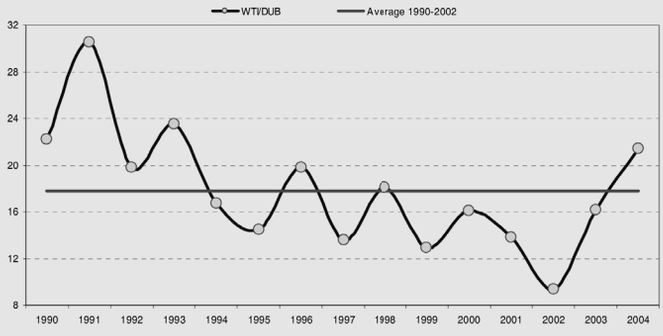
3 Long-term differentials

This section examines the long-term developments in the price differentials between the three benchmarks WTI, Brent and Dubai, as well as that between WTI and the medium-sour Arab Heavy crude oils. A historical set of average weekly prices from January 1990 through week ending 12 November 2004, a total of 776 observations, is the basis for the analysis.

In order to carry out a more realistic analysis, the price differentials have been calculated on a percentage basis rather than the absolute difference between the actual prices which are expressed in US dollars. This section first looks into individual differentials and then presents a combined assessment of the long-term trends.

Figure 4 demonstrates the average yearly differentials and the overall 1990-2002 average differential between the two famous benchmarks WTI and Dubai.

Figure 4: Average yearly percent spread between WTI and Dubai prices versus the 1990-2002 average



It is clearly seen that the differentials have a declining trend up to the year 2002. Then they make a sharp reversal. However, the average 2003 differential, 16.16%, is still below the historical 17.77% average. It is only in the current year, 2004, when the differentials up to the second week of November register an average 21.38%, climbing significantly above the historical average for the fist time after 1996.

To sum up, one could say although the price differentials have widened significantly since early 2003 and dramatically since July 2004, they do not stand at their historical maxima. Talking in numbers, Table 2 summarized the relative price spreads for the period 1990-2002 and separately for the years 2003 and 2004.

Table 2: Percentage differentials in weekly average crude oil prices

Crude oils	Percentage differentials in weekly averages								
	1990-2002			2003			2004		
	Min	Max	Ave	Min	Max	Ave	Min	Max	Ave
WTI / Dubai	1.28	50.57	17.77	8.45	24.64	16.16	12.73	44.91	21.38
WTI / Brent	-6.32	23.01	7.77	1.08	18.81	7.89	2.65	13.92	8.16
Brent / Dubai	-9.40	39.26	9.36	2.22	15.41	7.70	3.36	36.54	12.29
WTI / Arab Heavy	5.86	91.83	27.19	10.53	26.02	17.55	18.18	62.68	29.73

An econometric analysis on the long-term differentials, in fact, reveals that they are stationary. This means that crude oil prices – benchmark or otherwise – could be considered as a unique pool of inter-related streams which could randomly drift apart under special circumstances but basically stay together in the long-run; the current wider than normal price spreads are examples of the said random drifting.

4 Oil market developments

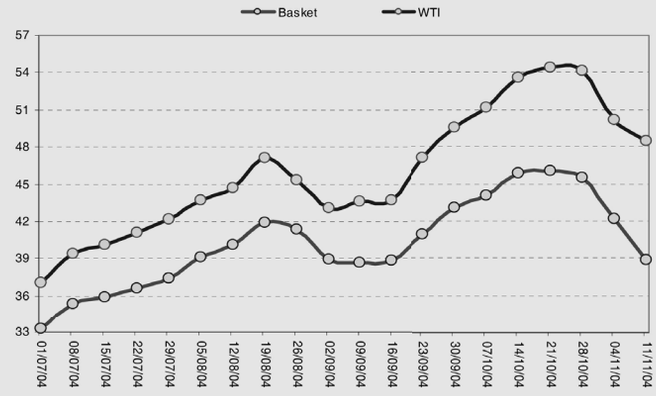
In order to gain a better understanding of the background to the current high differentials environment, this section examines, in detail, the geopolitical events and the crude oil price movements in the period July – November 2004.

The decision to increase the production ceiling to 26.0 million barrels per day was reaffirmed by the OPEC on 15 July. Ironically, increased OPEC output not only did little to ease prices, but indirectly pushed prices higher, as the market found a new factor to worry about: the decline in spare production capacity in OPEC members. When OPEC held its next meeting on 4 August, total OPEC output had reached well above 29 million barrels per day in July, with OPEC-10 production reported at around 27.5 million barrels per day, which was about 2 million barrels per day above the July ceiling. OPEC-10 production was expected to rise further in August, with total OPEC production, including Iraq, approaching a record 30 million barrels per day. Given the high levels of actual OPEC output, spare capacity in Member Countries had declined from a high of 20% of production in 2001 to less than 5% in July of this year. This concern helped push WTI as high as $48.76 per barrel on 19 August and the OPEC Basket to $43.16 per barrel on 20 August. The weekly WTI climbed to $47.11 per barrel in the week ending 20 August while the weekly OPEC Basket registered a local maximum at $41.94 per barrel in the same week (see Figure 5).

By the start of September, the high output levels of OPEC members were beginning to show up in commercial OECD stocks, which saw builds to near normal levels. Prices had eased somewhat, dropping to around $38.62 per barrel for the weekly OPEC basket during the week ending on 10 September. In an effort to lower prices further, OPEC decided to raise the production ceiling by 1.0 million barrels per day to 27.0 million barrels per day, with effect from 1 November. This was seen as an effort to assure the market that supplies would be ample heading into the high demand winter season.

However, unexpected events at the end of the month reversed the downward price trends, sending the market to new highs in September. The price of the daily OPEC Basket reached a level of $43.54 per barrel on 28 September, with the year-to-date average rising to $34.66 per barrel, compared to $27.91 per barrel in 2003. On the same day, the price of North Sea dated Brent hit $47.09 per barrel, while WTI closed at $49.90 per barrel, both all-time highs in the UK and US, respectively. This price increase was due to a number of events which appeared to threaten supplies such as unrest in Nigeria's oil-rich Niger Delta region; Hurricane Ivan, which substantially reduced production and refining operations in the Gulf of Mexico; the legal and supply woes of Russia's Yukos; and the continuing violence in Iraq, which had undermined attempts to return the country's oil production to pre-war levels. These factors were amplified by speculation in the oil futures market to levels well above those justified by supply and demand fundamentals.

Figure 5: Weekly WTI and OPEC Basket price in July-November 2004



The upward price trend continued until 21 October when the OPEC Reference Basket struck a new record high of $46.61 per barrel, while the light – sweet benchmark crude oils WTI and Brent saw all-time highs of $56.42 per barrel and $51.91 per barrel respectively. However, not all crude price rises were equal, as a major characteristic of the market at this time was an increasing gap between light – sweet and heavy – sour grades. The differential between WTI and Brent and Dubai widened to $17 per barrel for WTI and $13 per barrel for Brent on 15 October, primarily due to tightness in the light – sweet market caused by the lingering impact of Hurricane Ivan on US Gulf Coast oil installations amid ample supplies of heavier and sourer crude grades from OPEC members.

Given the expected supply increase from Central Asia and the coming-on-stream of new desulphurization units, the unusually wide sweet – sour spread should narrow in 2005, but it will remain higher than in the last few years.

However, after making it into the record books, crude price trends reversed to fall later by with weekly WTI and OPEC Basket recording $48.45 per barrel and $38.87 per barrel in the week ending 12 November respectively. A number of factors were behind this steady decline in values. Strong output levels by OPEC had helped to produce a counter-seasonal build in OECD stocks at the end of the third quarter and US commercial crude oil stocks had risen to stand at healthy levels. At the same time, tightness in the sweet crude market eased with the recovery in US Gulf Coast output from Hurricane Ivan along with the increase in North Sea production following maintenance. Sensing a change in sentiment, speculators who had staked substantial long positions in light – sweet crude began to liquidate their holdings, causing a substantial drop in net longs to the lowest level seen this year.

It is important to note that while the difference between the weekly WTI and OPEC Basket was as low as around $4 per barrel in early July 2004, it gradually widened to around $10 per barrel by late October when the crude oil prices were at their historical peaks. Although the prices have reversed their upward trend since late October, the spread between the WTI and OPEC Basket has not narrowed and persists at around $10 per barrel in early November 2004. Many observers believe that the spread is highly unlikely to decline to its average historical levels in 2005 and the immediate beyond.

5 Product market developments

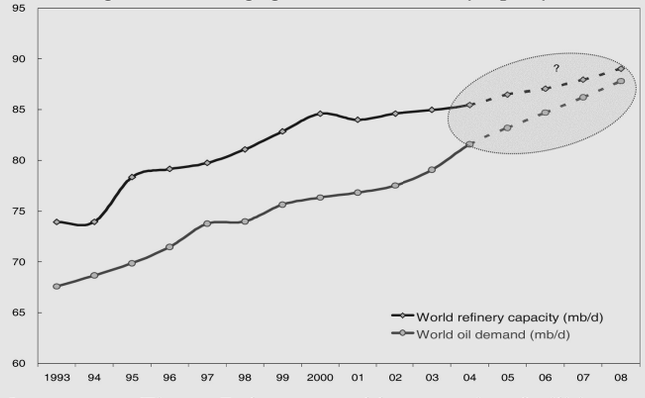
The products sector has played an important role in driving crude oil prices and price differentials to record levels in 2004. The products market has seen strong upward pressure due to high gasoline demand in early 2004, the introduction of stricter new product specifications in the USA, the switch from MTBE (methyl tertiary butyl ether) to RBOB (reformulated gasoline blend stock for oxygenated blending) for Reformulated Gasoline (RFG) in New York and Connecticut, and persistent supply constraints in tandem with unexpectedly high economic growth. The strong shift to the lighter end of the barrel caused the spread between light – sweet and heavy – sour benchmarks to widen.

Moreover, the year 2004 is recording a strong growth in the demand for light products, estimated at close to 2 million barrels per day, and representing close to 80% of the total incremental oil demand for the year. Meanwhile, refiners' preference for light distillate-rich crude increased by the end of the driving season in September; this was due to the need to build distillate stocks for winter. As a result, the price of light – sweet crude oils registered a sharp rise and the price spreads widened significantly.

6 World refinery situation

Tightness in the world refining capacity and the shortage in conversion capacity have both been instrumental in driving the crude oil price spreads to record highs. Total world refinery capacity is around 85.4 million barrels per day whereas world oil demand is estimated at about 83.5 million barrels per day in the fourth quarter 2004, very close to the maximum distillate capacity (see Figure 6). Furthermore, refiners usually have a preference for light distillate-rich crude oil rather than medium type crude oil in the fourth quarter, whereas there is no spare light crude oil production capacity. The market is also faced with a shortage of conversion capacity to produce light products from the immediately available sour crude oil.

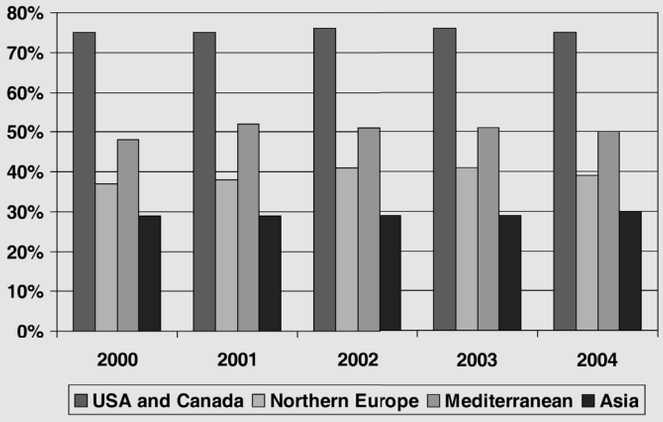
Figure 6: Increasing tightness in world refinery capacity



Moreover, as Figure 7 shows, world conversion facilities are generally inadequate. The latest data reveals that only 45% of the 85.4 million barrels per day of total refinery capacity

is equipped with conversion units which are able to produce premium products from medium type crude oil. For example, conversion facilities at Asian refineries, which rely mostly on pre-dominantly medium – sour crude oil imports from Middle Eastern OPEC members, stand at as low as 30% of total capacity.

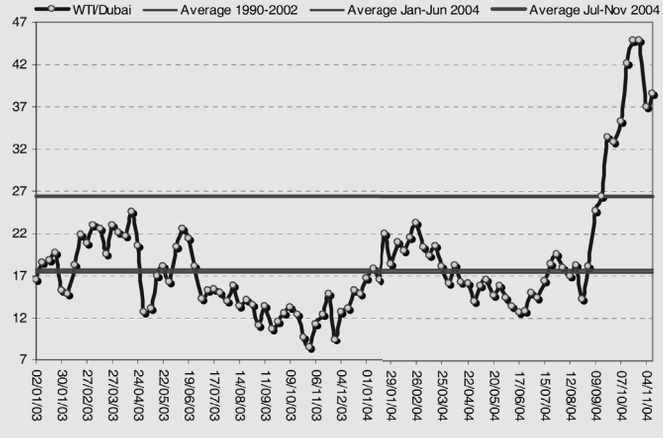
Figure 7: Ratio of conversion to total refinery capacity (by region, %)



7 Developments in the oil price differentials and their implications on investment

As mentioned in section 3, the spread between the benchmarks WTI and Dubai had set its historical peak in 1991 and its historical low in 2002. Figure 8 presents the average weekly percent WTI – Dubai differentials in 2003-2004. Although the spreads started rising in 2003, especially in the volatile price environment in the first half of the year, their average, 16.16%, failed to surpass the 1990-2002 historical 17.77% average. The average spread rose to 17.44% in the first half of 2004, still marginally lower than the historical average. The period July-November 2004, however, witnessed a significant jump in the WTI – Dubai differentials which averaged 26.49%.

Figure 8: The percentage weekly WTI – Dubai price spread, per cent



The absolute weekly 2003-2004 spreads are shown in Figure 9. As shown in the figure, the average weekly 2003 WTI – Dubai spread was $4.32 per barrel, higher than the $3.13 per barrel historical 1990-2002 average. The year 2003, therefore, marks the beginning of an era of higher spreads. The average spreads in the first half of 2004 climbed further to $5.40 per barrel, significantly higher than the historical average. The period July-November 2004 registered an unprecedented high average $9.66 per barrel spread, greater than three times the historical 1990-2002 average.

Figure 9: The absolute weekly WTI – Dubai price spread, US dollars per barrel

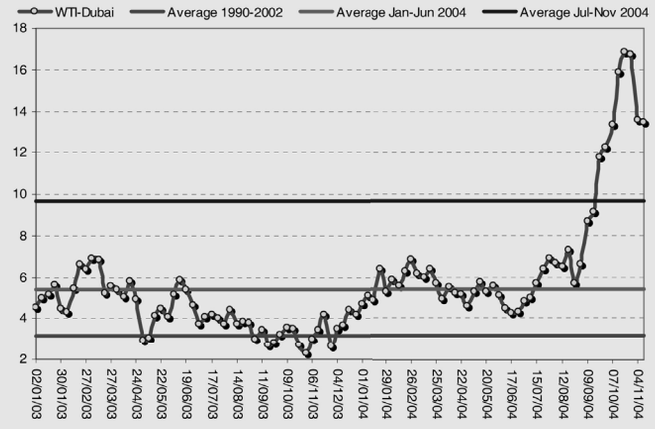
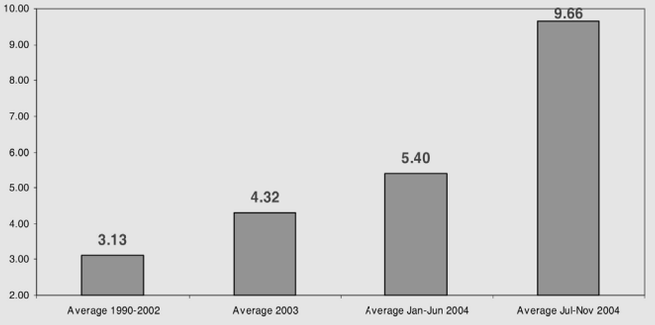


Figure 10 demonstrates the upward trend in the WTI and Dubai price spread. It is evident that the spread has been steadily widening over time.

Figure 10: The average absolute WTI – Dubai price spread, US dollars

Figure 10: The average absolute WTI – Dubai price spread, US dollars[2]



Apart from high oil demand growth, good refinery margins, fear of supply disruption, increasing speculators activities and high oil prices over the last three years, the major characteristic of the oil market particularly in 2004 was a mismatch between sweet and sour crude oil supply and demand, arisen mainly from the constraints in the downstream sector. These constraints have widened the gap between sweet and sour grades. Good refinery margins may encourage refiners to make new investments, primarily in conversion units. But due to the rising demand for light products, the amount of this investment may not be enough to keep pace with the demand growth. Moreover, due to the switching product demand patterns and the shifting of crude oil production in favor of heavy and medium – sour crude in longer term, it is necessary to accelerate the investment pace in downstream. Otherwise, the oil market will remain imbalanced and exposed to speculative movements rather than fundamentals in the immediate future.

OPEC members as major suppliers of medium – sour crude

are the main losers in these market conditions. They may lose further, if the existing bottlenecks in downstream are to persist. Taking as an example, close to 70% out of 30 million barrels per day of OPEC production is medium – sour which was on the average $9.66 per barrel discounted to WTI during July-November 2004. We subtract the historical WTI – Dubai average spread, $3.13 per barrel, from this unusual current spread between light – sweet and medium – sour crude oils ($9.66 - $3.13) to arrive at the excess spread $6.53 per barrel. The historical average $3.13 per barrel spread is taken for granted on basis of the quality difference between WTI and Dubai crude oils. The extra $6.53 per barrel, however, can only be explained as the result of the current supply – demand mismatch and other extraordinary factors. Total daily value of such an excess spread ($6.53 x 30m x 70%) of OPEC crude oil is more than 137 million US dollars. Multiplied by 30, its monthly value is over 4 billion US dollars. Total amount over July-November 2004 is more than 20 billion US dollars. Based on current estimates by Institut Français du Pétrole (IFP), the cost of establishing a grassroots sophisticated refinery is about US $30,000 per barrel. Therefore, using this amount of money, OPEC would have been able to establish over 650,000 barrels per day grassroots sophisticated refining capacity. Investing in the establishment of deep conversion complexes is much cheaper than refineries and costs about US $8750 per barrel as estimated by Institut Français du Pétrole (IFP). OPEC, alternatively, would have been able to establish enough conversion facilities to refine the bulk of its medium – sour crude and to take more market share in addition to stabilizing the market.

Did OPEC pay any attention to this opportunity?

Potential OPEC production cuts, seasonal demand fluctuations and increasing light crude oil production by CIS countries, would possibly moderate the current (late 2004) wider than normal price spread by 2005. But, due to structural changes in product demand pattern, it looks highly unlikely that the spread between light-sweet and heavy-sour crude will decline back to its historical $3.13 per barrel average.

Finally, if OPEC members would like to contribute to

• the reduction of oil market volatility,

• the trimming of speculators' influences on the oil market,

• the narrowing of the gap between sweet and sour as well as heavy and light crude oil prices,

• the increasing of their market share,

they should directly invest in the upgrading of the existing refineries and the development of new refining and conversion units. OPEC members could also achieve the above-listed goals indirectly by encouraging other investors such as the refiners to invest in new refining and conversion facilities.

8 Concluding remarks

The following are some concluding remarks to sum up our analysis of the current high oil price and high spread environment and their impact on investment. The current (2004) world oil market situation can be characterized as follows:

• A low spare capacity and a predominantly medium – sour production: World incremental oil supply is seen to rely increasingly on OPEC whose spare crude oil production capacity is now (late 2004) less than 5%, at its several-year minimum. This delicate and potentially unstable situation represents a threat to the world oil supply security and has created a bullish sentiment in the market supporting higher prices. Moreover, OPEC production is comprised of nearly 70% medium – sour crude oil with this ratio gradually rising as production runs into deeper reservoir layers. With the world demanding ever-greater quantities of light – sweet oil, the mismatch between supply and demand deepens resulting in wider price spreads.

• A strong world oil demand growth, dominated by demand for light – sweet crude: Closely related to the dangerously declining spare crude oil production capacity, is the exceptionally high 2.5 million barrels per day estimated world oil demand growth in the year 2004. The growth of light – sweet crude oil demand accounts for nearly 2 million barrels per day, equivalent to 80%, of this strong growth. In other words, there is an increasingly higher demand for light – sweet crude oil compared with that for heavy – sour. However, the quality of marginal and incremental barrels being supplied is disproportional to that of the demand. This helps further widening of the price spreads. The strength in demand growth at 1.5 million barrels per day and the demand tilt towards light – sweet crude are anticipated to continue in 2005.

• Downstream bottlenecks: The world oil product market has recently become very tight. World refining and conversion capacity is just sufficient to fulfill the product demand. In addition to that, a larger portion of world refining capacity is geared to refining lighter – sweeter crude oil while such crude oils are inadequately supplied and this is worsening as more stringent product quality specifications are being introduced in major consuming markets.

• Geopolitical tensions: An obvious example is the situation in Iraq which is still (November 2004) unsettled and could adversely affect the market any time in future.

• Unusually high price spread and investment opportunities: As of the second half of 2004, the spread between light – sweet and heavy – sour crude oils stands at record highs. For example, the average WTI – Dubai price spread is close to $10 per barrel. This unusually high spread environment has resulted in a missing revenue or opportunity cost for OPEC amounting to nearly $20 billion. Since the wider than normal spreads are expected to persist in near term, OPEC and others would have an opportunity for investment in refineries and conversion complexes in order to refine larger volumes of medium – sour and/or heavy – sour crude oils. This will eventually help reduce the current supply – demand mismatch and to narrow the price spreads.

REGULATIONS ON INVESTMENT

Article 1

In these Regulations, the following words are used in the place of the corresponding full terms:

Mainland: the Islamic Republic of Iran, excluding the Free Trade and Industrial

Zones Authority: the Authority of each Free Trade and Industrial Zone of the Islamic Republic of Iran

Zone: each Free Trade and Industrial Zone of the Islamic Republic of Iran.

Investment: the utilization of capital in different forms for any economic activity for the purpose of manufacturing goods and providing services.

Foreign Capital: All the types of capital mentioned in Article 3 of these Regulations (save for the Rial amounts) imported into the Zones by foreign investors.

Foreign Currency Capital: the capital mentioned in Article 3 of these Regulations (save for the Rial amounts) that is imported into the Zones from outside the Mainland by Iranian nationals

Net profits: the excess of realized income earned by an entity over expenses incurred in a financial period resulting from profit-making activities, identified and measured in accordance with generally accepted accounting principles

Article 2

All natural and legal persons and institutions, both Iranian and foreign, as well as international organizations, may either separately or jointly with the Authority and affiliates thereof or jointly with each other invest in the Free Zones in accordance with these Regulations; their accepted capital shall be subject to these Regulations.

Article 3

For the purposes of these Regulations, capital shall comprise:

(a) Rial amounts and foreign currency amounts convertible in the Zones (each Zone);

(b) machinery, equipment, parts and tools;

(c) industrial property rights including patents, technical know-how, trademarks and names;

(d) land, air and sea-going vehicles relating to the Investment;

(e) all or part of transferable net profits generated in the Free Zones and added to the initial capital or utilized in another authorized activity governed by these Regulations.

Note

in special cases, raw materials and semi-finished parts may, at the discretion of the Authority, be accepted as a part of foreign capital.

Article 4

Capital shall be accepted and made subject to these Regulations under the following conditions:

(a) it is utilized in activities authorized by a Zone;

(b) it has completed the entire procedure for the grant of the investment permit mentioned in

Articles 6 and 7;

(c) it does not involve the grant by the Authority to the investor of a concession or monopoly

rights.

Article 5

Foreign investors may participate in the economic activities of the Zone up to any ratio (of the amount of investment).

Article 6

The investors mentioned in Article 2 of these Regulations that wish to import their capital in any of the Zones must submit to the Zone Authority their application together with a questionnaire (prepared by the secretariat and the Zone Authorities and placed at said investors disposal). Applications received in a Zone shall be examined by the Zone Authority and an investment permit issued by the Authority of that Zone.

Note 1

Alterations to the contents of the questionnaire and the investment permit may only be made with the knowledge and, where necessary, approval of the Zone Authority.

Article 7

Within the period specified in the investment permit, the holder of an investment permit must import into the Zone a set percentage of the capital in order to commence implementation of the activities mentioned in the investment permit.

Article 8

The importation and registration of capital in Free Zones shall be undertaken in the following manner:

(1) The capital mentioned in Article 3 (a) of these Regulations shall be deposited in the bank (or authorized credit institution) account of the entity in which the investment is to be made and, after computation of the Rial or foreign currency counter value, as the case may be, at date of the deposit and in accordance with the certificate of the bank (or the authorized credit institution), registered as the capital of the investor in the register of the Zone Authority.

(2) The capital mentioned in Article 3 (b) and (d) of these Regulations and as specified in the investment permit and evaluated as per their CIF value evidenced by documents and relevant invoices shall, after review by the Zone Authority, be converted in total at date of customs clearance into a convertible foreign currency; the foreign exchange value thereof and, concurrently, its Rials equivalent (at the current rate of exchange posted in the Zone) shall be registered as of that date as the capital of the investor in the register of the Zone Authority.

(3) The capital mentioned in Article 3 (c) of these Regulations shall, after its evaluation has been confirmed by

the Zone Authority, be registered as capital in the register of the Authority. Allocation of the value of the technical know-how to the capital account shall be concurrent with the transfer of said technical know-how.

(4) the capital mentioned in Article 3 (e) of these Regulations shall, after confirmation by an auditing firm acceptable to the Zone Authority, be registered as capital in the register of the Zone Authority in the following manner:

(a) after obtaining the approval of the Authority, with the aim of increasing the capital to expand investment in the same entity;

(b) after obtaining the approval of the Authority, with the aim to expand investment in activities other than activities for which permission has been granted.

(c) after following the procedure set forth in Article 6 of these Regulations, if the aim is to invest in activities other than the activity for which the investment permit was issued.

(5) Whenever all or part of imported capital in kind is deemed in the judgment of the Authority as defective, damaged or useless, or do not conform to the specifications declared in the application, or whose declared value exceeds its real value, such portions of its price are not confirmed by the Authority shall he carried into the capital account.

(6) In cases where capital goods Mentioned in Article 3 (b) and (d) of these Regulations belonging to foreign investors were previously used on the Mainland and transferred to the Zones with the authorization of relevant Mainland authorities, the transfer of such goods shall be deemed as a transfer of domestic capital and shall be subject to the provisions of these Regulations.

Article 9

Investors may insure the capital they import into the Zones. If, pursuant to the occurrence of a contingency, an insurance company becomes the subrogate of the investor in accordance with the insurance policy, such subrogation by virtue of payment of compensation to the insurers shall be recognized; however, it shall not be deemed as an assignment of capital.

Article 10

The legal rights of foreign investors are guaranteed and protected. In cases where the capital of foreign investors is nationalized by law in the public interest and/or said investors property is expropriated, fair compensation of damages shall be effected either by the Government in compliance with the "Law of Attraction and Protection of Foreign Investments" or by the Authority as required by the investor. In case the Authority is to compensate the damages, the investor must within a period of six months from date of the expropriation file with the Authority a request for compensation of damages incurred. The Authority shall evaluate at current prices the amount of damages incurred and within a period of three months pay compensation thereof. The Zone Authority may undertake the aforementioned guarantees through contractual arrangements with the Central Bank and other banks, credit institutions and insurance companies.

Note

In case the investors subject to this Article are inclined that the guarantee mentioned in the Law on Attraction and Protection of Foreign Investments (approved in 1334), to be fulfilled, their proposal of investment has to he submitted to the body subject to the Article (2) of above- mentioned law. Issuance of guarantee shall be allowed in compliance with the procedures and formalities defined in that Law.

Article 11

Each year all entities set up in a Zone pursuant to investment permits must communicate to the

Authority a report on their operations and their financial accounts; the financial accounts must be confirmed by an auditing firm acceptable to the Authority,

Article 12

Repatriation from the Zones of net profits, the initial capital and gains resulting from economic activities undertaken with Foreign Capital and Foreign Currency Capital as well as the proceeds of the sale or transfer of these types of capital is permitted.

Upon request of such investors, and after verification that the amounts for which repatriation from a Zone is requested, results from utilization of the investors registered capital in the activity specified in the investment permit, and after ensuring that the circumstances set forth in the following Note have been taken into account, the Zone Authority shall issue the necessary authorizations within one week from date of receipt of said request.

Note

In its review, the Zone Authority must take into account whether the investor may benefit from the tax exemptions mentioned in Article 13 of the Law on the Administration of the Free Zones and whether the amounts for which repatriation is requested are net amounts.

Article 13

Payments of installments of the principal of loans and related expenses, as well as payments pursuant to patent, technical know-how, technical assistance and engineering, trademark, management and similar contracts are authorized if the Authority is informed and if they are made within the framework of investment projects based on relevant contracts and financial statements.

Article 14

Investors may transfer their shares of stock to other investors with the authorization of the Zone Authority. In such case, the transferee shall be deemed in every respect the successor of the original investor.

Article 15

The transfer of capital from one Zone to another Zone shall be subject to the investment regulations of the Zones from which the capital departs and in which it enters.

Article 16

Disputes between foreign investors and Iranian parties shall be settled in accordance with contracts and written agreements.

pattern in the coming years could be predicted. As an option, the provinces and regions could be authorized and motivated to promote the culture of saving energy and enjoy its outcome.

Since financial capabilities differ in various regions of the country, the relative economic value of the subsidies is different in these areas so that it is of greater value in the underprivileged parts, playing a more important role in their people's livelihood.

Therefore, if an appropriate plan is outlined and energy consumption in each region or province is taken into consideration, then the amount of shadow subsidies allotted to a region will be known, paving the way for formulating coherent strategies for the regions. The strategies will help them use the savings built up by subsidies and consume the energy logically, with the aim of implementing suitable projects and economizing the energy. They could also reduce a certain volume of allocated energy carriers or replace them with renewable energy sources, which bring about positive and palpable impacts on the regions. Some countries are pursuing such a strategy and the Iranian government could use their experience.

The regions could use the earmarked subsidies either directly or indirectly.

In the direct case, the regions should be authorized to modify the energy subscription fee in a way to prevent inflation and price disorder. Then they could use the hidden subsidy (the balance between regional and domestic prices) and carry out certain projects under supervision of responsible officials, which help develop the economy.

The indirect method urges the regions to draw up suitable plans in order to reduce their energy demand. The government, however, should allow them to use the balance between the values of allocated energy carriers on the basis of their real regional prices, i.e. the hidden subsidy, and implement certain projects after make the necessary arrangements and coordinating with the related authorities.

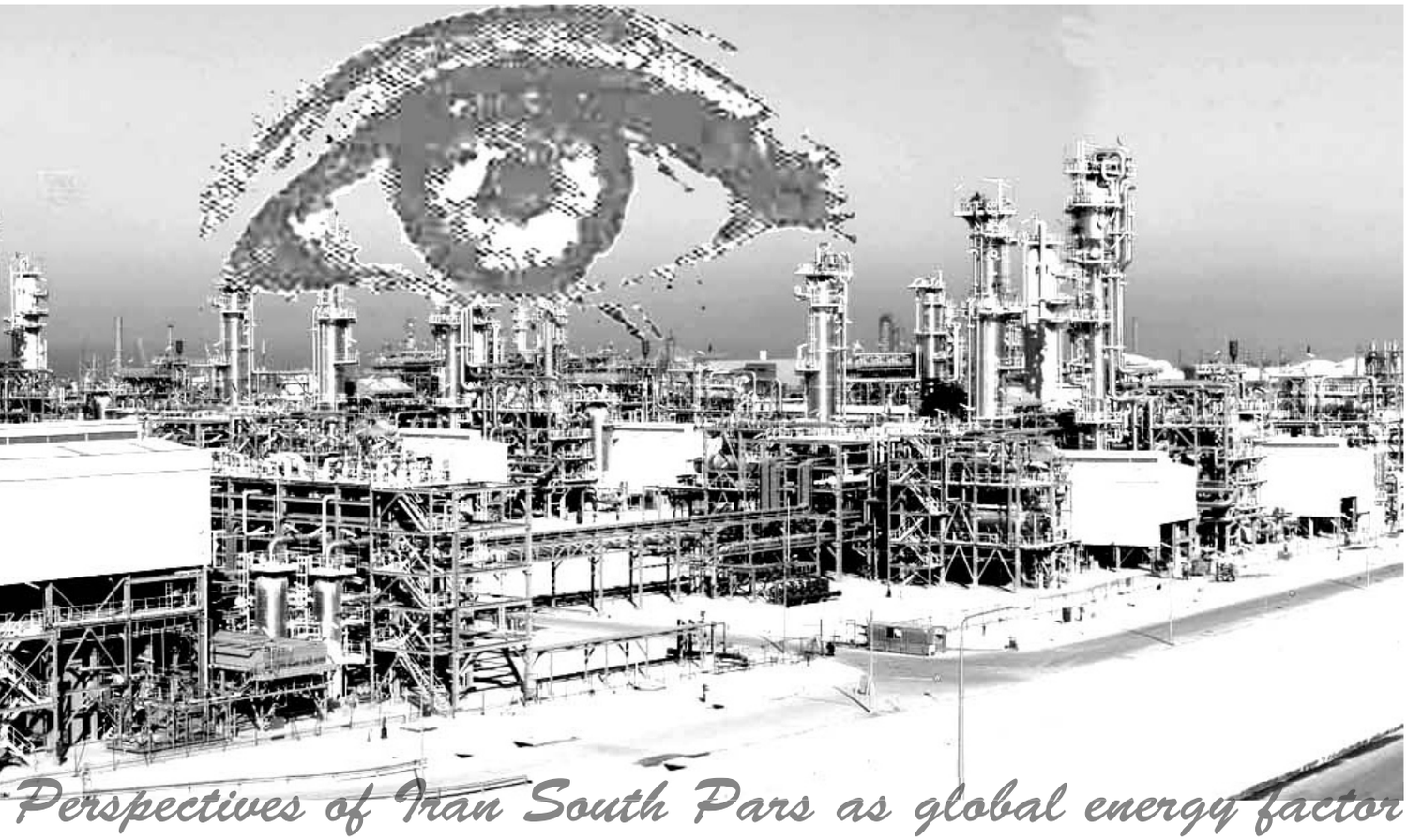
The proposal which was briefly explained above is a preliminary one. If it is approved, the overture should be studied in details.

The expenditure on transfer of energy carriers in many remote areas is too high. That should be actually added to expense should be added to the subsidies to calculate the total figure It is also necessary that all organizations, ministries, and other bodies engaged in energy production and distribution participate in the national plan and help carry out it in an appropriate way throughout the country.

Such plans could create jobs and help distribute subsidies in the provinces and regions reasonably. They not only help make development and create job opportunities in the underprivileged areas, but also promote the culture of energy consumption in the regions – major strides toward the government's justice-oriented objectives.

To implement such plans as appropriately as possible, a pilot test in a suitable province deems necessary.

In the next stage, the plan could be developed in other provinces and regions after all aspects are carefully scrutinized.



Perspectives of Iran South Pars as global energy factor

Perspectives of Iran South Pars as global energy factor

Perspectives of Iran gas production and transit, in particular, current stage of realization of the South Pars project, as well as international and regional political and economic tendencies, connected with it, were presented by Deputy Director of Noravank Scientific-Educational Fund Sevak Sarukhanyan on March 28 in Yerevan.

According to Sarukhanyan, by the end of 2004, proven gas reserves totaled 7.1 trillion of cubic meters in South and Central America, 7.32 trillion m³ – in North America, 14.06 trillion m³ — in Africa, 14.21 trl m³ — in Asian-Pacific region, 64.02 trl m³ — in Europe and Eurasia, and finally 72.83 trl m³ — in Middle East. At the same time, 28.5%, 15.2%, and 14.1% of world energy balance correspondingly fall on Russia, Iran, and Qatar. Accordingly, parts of Russia, Iran, and Qatar in world gas export vary near 34%, 1%, and 1%.

Meanwhile, as Sarukhanyan stressed, gas usage will triple in the EU by 2020. According to the expert, such drastic rise of the fuel's consumption will be accompanied by sharp reducing of gas extraction in Norway, and little by little strengthening of the Russian monopoly concerning Turkmen and Uzbek gas transit to Europe. According to Sarukhanyan, increasing of Russian gas supply to Europe will be accompanied by diversification of its transit routes. During the next 15-20 years, big part of Russian gas will be supplied to Europe through three main routs: 120-150 billion m³ — through Ukraine, 50-70 billion m³ — through the North-European pipeline, 50-70 billion m³ -through Norwegian pipeline system, taking into consideration decreasing of gas production in Norway. In context of signing Russian-Chinese agreements, Russia will, according to the expert, direct considerable part of the Russian gas from Siberia to China. "Even, if to take into consideration possible increase of Russian gas to EU, European 'negative' gas balance will reach 150 billion m³ by 2025," believes the Armenian expert.

According to his prognosis, solving problem of missing gas, Europe has chosen Iranian South Pars project. It is known as world biggest natural gas deposit, which may be connected with Europe by pipeline. According to

Perspectives of Iran South Pars as global energy factor

Sarukhanyan, South Pars contains huge gas reserves of best quality, which are still uncontrolled by USA, Russia, and China. According to the presentation's information, 8 South Pars' sections are completely ready; every one produces 25 million m³ per day. Annual production at these 8 sections totals 73 billion m³.

Mentioning rival projects of Iranian gas export, the Deputy Director of Noravank Fund conditionally named them the 'West' and the 'East' ones. West Project is route Iran-Turkey (South Caucasus)-Europe, East Project – Iran-Pakistan-India. Actually, according to Sarukhanyan, Pakistan and India together pretend to 40 billion m³ of Iranian gas, and Europe – to 150 billion m³. "Politicization of the question is caused by fact that behind Iran and Pakistan stands threatening shadow of Chinese People's Republic, which is pretending to the lion's share of Iranian gas by 2020. The USA is worried by Chinese strategy of energy import, based on two fundamental principles: seller of oil and gas guaranties stability of supplies, and buyer (i.e. China) guarantees their security at whole route. It naturally strengthens military-economically China and Shanghai Organization of Cooperation in regions of supply and transit", stated the expert.

What does Iran want, asked he himself? According to Sarukhanyan, basically Iran prefers European market, because EU countries are ready to buy gas at European prices. As for Pakistan and India, they suggested Iranian side making long-term agreement on gas supply at fixes prices, which basically does not satisfy Iran. At the same time, Iran skillfully uses the East Project in order to have additional arguments in his European policy, as well as in talks on nuclear problems.

From other point, characterizing US position on the question, Sarukhanyan stressed, energy strategies of US and EU fundamentally differ. It was obviously demonstrated by the American way of Iranian problem's solution. "It is more favorable for the USA, when Europe consumes Russian gas, but not Iranian one. From the other side, US general aim is not to allow Iranian gas to get into China. American-Indian agreement on construction nuclear reactors, aimed at decreasing India's energy needs, may be connected with the fact", stated he. Mentioning perspectives of Iran-Armenia-Georgia-Ukraine-Europe route, Sarukhanyan pointed out, construction of new pipeline in Ukrainian territory would be very expensive. It will take from $35 billion up to $40 billion, because 90% of existing infrastructure are used for transit of the Russian gas. Hypothetical transit incomes of Armenia and Turkey, for transition of Iranian gas, may approximately total $160 million for Armenia (in case of transit of 50 billion m³ annually), and for Turkey up to $4 billion (in case of transit of 150 billion m³ annually), according to the expert.

Financing of Iran's Petroleum Project

In recent years, especially in 2005, the Persian Gulf states, particularly Qatar, have served as suitable hubs of activities for int'l banks and financial institutes. Last year, Qatar was second, after the US, in the global market of 'project finance' in terms of getting loans.

According to the Qatari deputy prime minister, the country, which shares the giant South Pars gas field with Iran, has managed to get some $ 20 Bln loans for use in its energy projects in just the past 15 months and is poised to receive another $ 18 Bln loan for the same sector in the next 2 years.

The international banks and institutes that can secure the 'project finance' are eager to finance the energy projects in the Persian Gulf Arab states, because they believe that the risk involved in these countries is low while the rate of capital return is high.

On the other hand, save for a few cases, Iran, despite its huge oil/gas reserves, has failed to entice monetary entities to help in securing the financial needs for its projects in 2005 and so far in 2006. This is mainly due to the political standoff regarding the country's nuke activities.

While watching Iran's political and economic situation, Export Credit Agencies (ECA) in different Asian and European countries are trying to lower their risk of dealing with Iran and some have already done so.

In the view of OECD countries, Iran ranks the 4th in terms of investment risk (zero stands for the min risk and seven for the max). Of course, some European ECAs believe that, despite the basic politico economic problems with Iran, there are still ample opportunities for work in Iran because the country has a comfortable Foreign Exchange Reserve Fund and relatively low debts.

Some banks, however, like UBS and CSFB have already closed down their offices in Iran and the ones still active in the country have curbed their liabilities significantly.

At present, most of Iran's big projects in oil, gas and petrochemical sections are stifled because of financial problems. The Ministry of Petroleum has been doing its utmost to secure the financial needs of these projects through foreign or local sources.

Attempts to secure the needed finances through foreign sources have been largely unfruitful so far. As stated before, this is mainly caused by the standoff in Iran's nuclear issue. However, this is not the only reason; rather there are other factors contributing to the problem, like the changes that took place, particularly in the Ministry of Petroleum, contradictory words and deeds of some officials and no clear cut direction for the buy-back deals.

Officials of Iran's oil ministry say they intend to use internal sources, including the country's Foreign Exchange Reserve Fund, to meet the financial needs of the projects. But, there are too many projects for the limited resources available, including that of the Fund, not to speak of the red tape involved.

On the other hand, the Iranian banks, which by definition have to be capable of playing a major role in securing the financial needs of the projects, neither have the financial capacity nor the expertise to do so.

At present, the works on the development of South Pars phases 12,15,16,17 and 18 have come to a halt because of financial problems and South Pars phases 9 and 10 project is probably faced with similar problem as well.

The situation is not any better for Iran's petrochemical and refining plants, including the 11th Olefins, Ilam Olefins and the like, the financial needs of which were planned to be secured through foreign sources.

Crude Oil Prices Hike Out of OPEC Control; OPEC Comes Under Consumers' Attack

The world has witnessed the unprecedented growth in the crude oil prices during the recent days. The OPEC's crude oil price soared to 66.34 dollars per barrel in the closing week of last April.

Some part of the world public opinion believes that the OPEC is behind the prices hike. They argue that if the OPEC lifts its output ceiling, the oil prices will be reduced and kept at their previous levels. In fact, the consumers' propaganda during the past decades has fueled the belief that the OPEC is behind the oil shortage and high prices in the world. The Organization of Petroleum Exporting Countries is now supposed to be the main factor in the oil prices growth.

But the reasons should be uncovered somewhere outside the OPEC domain. Here below come those factors:

Geopolitical Factor

It is the most important factor in the current increase of crude oil prices in the international markets. In fact, political crises and instability in some oil producing states have caused concern in the global markets.

The crude oil production in Iraq has dropped to 1.8 million barrels per day (mbpd) from 2.5 mbpd in March of 2003 – before the U.S. invasion.

According to the CNN, Iraq suffered 3,500 terrorist acts in 2005, i.e. 9.6 events a day.

At present, the war-torn Iraq's future is gloomy mainly because of the lack of investment in its worn-out oil infra-structures,.

On the other hand, the saboteurs have caused great problems for the country's export sector in particular in the northern areas.

Political unrest in Nigeria and the insurgents' rebellion in the oil-rich Nigerian delta have cut the African state's crude oil production by some 500 thousand barrels per day since three months ago.

As summer is approaching the market is experiencing the increase in gasoline consumption, the impact of Nigeria's crude output cut becomes clearer because its crude oil is of light type, whose contents are very rich.

The market, thanks to limitation of refining and conversion capacities, is in dire need of this type of crude oil in order to meet gasoline consumers' needs.

The opposition groups in Nigeria want to hold their national asset by themselves.

On the other hand, Bolivian President Evo Morales has nationalized his country's gas industry -- a move the world expects to be followed by other Latin American states.

Still, the verbal conflict between Venezuela's President Hugo Chavez and his U.S. counterpart George W. Bush has prompted Chavez to renew his threat that the country's oil exports to the United States would be cut off.

Venezuelan oil workers' strike in late 2002 has caused a permanent daily decrease of 500 thousand barrels in its oil output.

Officials of Venezuela have all the time accused the United States of involvement in their country's unrests.

Russia also stopped exporting gas to Europe via Ukraine for one day in the beginning of the year 2006. Moscow justified the fourfold increase in gas price was the main reason behind the decision and the reduction of gas exports.

Some analysts, however, believe the establishment of a pro-U.S. government in Ukraine has instigated Russia to make such a decision.

On the other hand, Europe that imports one-fourth of its required gas volume from Russia is gravely concerned.

Furthermore, the activities of terrorist groups in the oil-rich Middle Eastern states in particular the Persian Gulf countries have worried the oil circles.

A wave of concern swept over the world oil market in lat February of 2006 when a car explosion occurred near a processing plant in Saudi Arabia. Some six million barrels on crude oil are processed in the plant daily and exported to foreign countries.

The experts know very well that the OPEC member states are now pumping to their maximum capacities and only Saudi Arabia claims to have an excess capacity of 1.5 million bpd.

It means any incident in Saudi Arabia causes the Arab state to run out of its excess capacity needed to make up for probable shortcomings.

In other words, any problem in Saudi Arabia's oil production and supply system would make useless the safety valve of the oil market.

Strategic stockpiles have also limited capacities and cannot meet the needs during the supply crisis.

Last May, Saudi Arabian Oil Minister Ali al-Naimi announced although Riyadh has spent billions of dollars for security measures, there will be a real possibility for the terrorist attacks on his country's oil installations.

In addition to the aforementioned reasons, the

opposition of some Western states to Iran's peaceful nuclear activities has caused major concern in the oil market. The United Nations Security Council's threat to impose sanctions against Iran and to boycott its crude oil exports or to use oil as a tool against the Security Council's measures have created tension in the market.

To analysts, even if the Council imposes economic sanctions on Iran, it will gradually affect the country's oil exports capacity.

Natural Disasters and Production Capacities

A hurricane in the Gulf of Mexico in early September of 2005 led to a production cutoff of nearly 130 million barrels of crude oil by the end of April.

Still, different incidents such as infernos in oil fields and refineries in different parts of the United States and the world during the second half of the previous and early months of the current year also inflamed the market.

Only bad weather conditions in February and March of 2006 accounted for a 10 million barrel decrease in southern Iraq's crude oil exports.

Such disasters took place at a time when the excess capacity of international crude oil production had sharply decreased. Even some experts say it has touched zero. They harbored doubts about Saudi Arabia's potential to boost its daily production by 1.5 million barrels. According to them, Saudi Arabia's production has reached its peak.

It is worth mentioning that no new refinery has been built in the United States since the 1970s while the country is consuming one-fourth of the world's oil. Under such circumstances, any incident in the world's refineries affects the oil prices.

Oil officials of Saudi Arabia and Kuwait have recently called for establishment of refineries on the U.S. soil in association with the American companies in a bid to remove some pat of downstream problems.

Lack of oil processing facilities looms large on the verge of summer because the market demands lighter products. The shortcoming forces the refiners to purchase lighter crudes that allow them to produce more light products in their refineries. The issue causes a rise in light crude oil prices that also leads to the increase in the heavy crude oil prices.

Growing Demand

The rising demand for oil since 2000 and in particular as of 2004 is a fundamental change the market has witnessed during the recent years.

The strong economic growth in the world in the recent years has caused the prices hike to have little impact on the growth of demand. The growth rate of demand for oil is predicted to touch 1.4 million barrels per day in the current year. The figure indicates a daily increase of 400 thousand barrels when compared to the similar amount in 2005.

The depressed oil market has prompted the stockbrokers to buy futures contracts, making the prices shoot up.

According to the report, stockbrokers' net purchase during a week ended on April 25, 2006 hit 74,023 papers barrels, each equal to one thousand barrels. It is an unprecedented record.

U.S. Political Pressure

Under such conditions that the growth of prices is completely out of OPEC control, the U.S. senators passed a bill in late last April that authorizes the U.S. Administration to sue the Organization of Petroleum Exporting Countries for the rise in oil prices. The bill must be also ratified by the U.S. president Congress. for enforcement.

Even Mike Dewine, a senator from the State of Ohio, has claimed that the OPEC's decision for controlling the pumped oil volume by its members is a disgraceful violation of "anti-trust" rules and regulations. He has warned if the U.S.-based companies do the same, they will be brought before the court.

Frank Lautenberg, a Democratic senator from the State of New Jersey, writing a letter to the U.S. ministry of Energy Samuel Budman has urged him to stop treating the OPEC mildly and deal with the OPEC member states before the World Trade Organization (WTO) steps in.

The letter added that American people are suffering from the high gasoline prices, urging the George W. Bush's government to break up the OPEC cartel.

The remarks seem to serve domestic US politics U.S. politicians plan to take advantage of the opportunity for their political propaganda and election campaigns.

According to the recent polls, the popularity of President Bush has declined by 32 percent. Some 60 percent of American people believe Bush is not doing his job appropriately.

To many political analysts, the rise in the oil price particularly the gasoline price hike will affect the U.S. Congress elections in November of 2006, encouraging the people to stop supporting the Republicans.

However, the U.S. energy minister, who hosted the Saudi Arabian oil minister in early May, ruled out the Senate's bill and expressed his strong opposition to it.

He said the U.S. Administration was also against the bill.

For his part, the Saudi Arabian Oil Minister Ali al-Naimi underlined that he would not intervene in domestic policies of other countries specially the United States, which have amicable ties with his country.

At this juncture, the OPEC is duty-bound to publicize the main factors behind the rise in prices. The heavyweight body is also expected to brief the world on destructive factors affecting geopolitical affairs worldwide.

Iran's Economy & Energy Subsidies

Establishing a pricing system in Iran, particularly for fuel and energy, has always been a complex issue. Even though there seem to be differing views on the definition of subsidy and on how to eliminate it, no one appears to be against its existence, which is a main cause of uncontrolled consumption and hence an obstacle to any improvement in the country's economy.

The politically charged atmosphere in Iran forestalls addressing important issues rationally. At times a single neoclassical method, amongst many others, is highlighted by some as the only way out, blocking the path for putting forth a logical solution to a problem. It becomes more damaging when the neoclassical approach is not even attuned to the prevailing conditions in Iran.

Subsidy is an important economic tool that can be used successfully to prop up the macro economy of a country. But when it is used to the disadvantage of the economy of a country it can not be defended by any economist.

The deep-rooted and complicated economic issues in Iran are the main reasons behind the conflicting viewpoints. But any hasty approach in dealing with such issues could lead to harmful consequences.

Leaving a cancerous tumor untouched in a patient's body may sometimes be the best treatment for it because surgery could prove to be even more detrimental.

But is inaction a solution, or is there actually a solution to this chronic problem?

Apparently two very specific and complementary long-term solutions can be considered for ridding Iran of the subsidies in a gradual way.

Solution 1

A model for the country's economy can be created to see what happens if the energy subsidies are eliminated.

What will in reality happen when the subsidies are removed? How will the real prices affect people's consumption? What energy-conservation projects will be doable?

Since real prices are seen as 'shadow' prices in the economy, if there are projects that can be carried out at the real prices and are good for the economy, shouldn't they be identified and the subsidies be allocated to them for their speedy implementation?

This effectively constitutes the non-price solution.

Solution 2

The second factor that can pave the way for the long-term rationalization of prices is a solid determination to avert generation of new subsidies. The fact is that those very people who are against energy subsidies because "subsidies prevent enhancement of Iran's economy" keep generating huge volumes of new subsidies in the form of annual budgets!

For instance, in each annual budget of the country the government is required to provide the cities and villages close to the national gas pipeline with gas and the only criterion for it is the 'distance' between the pipeline and the city or the village. It began with 5 km 'distance' and has now reached 15 km.

The economic rationale of gas distribution has nothing to do with 'distance'. As far as this rationale is concerned, supplying gas to a village/city with sizeable population in a cold area that may even need gas for industrial use and is 20 km away from the line is surely preferred to supplying gas to a village/city with scanty population in a hot area that has no industrial gas need and is 14 km away from the line.

When gas is supplied merely on the basis of distance and the other factors like capital expenditure, transfer cost and size of the population are ignored then effectively a new kind of non-transparent subsidy is being generated. But, if the calculations are given the needed transparency then we may come up with more suitable ways of securing the energy needs of some cities and villages. For instance, perhaps local energy potentials could be tapped for the purpose and, in the bargain, job opportunities are created for the inhabitants too.

Another example is to do with 'investment projects', which usually suffer either from poor technical and economic studies or are justified only because energy prices are subsidized.

In order to avert regeneration of subsidies, in both the public and private sectors, permission should be given only for the kind of investment projects that can produce good rate of return at real prices of energy carriers. If an investment proves to be uneconomical at real prices it will naturally result in loss if the subsidies are eliminated. And such an investment will effectively impose the loss on the economy of the country.

Even if other aspects, such as national security or job creation, are the real motives behind an investment, the most suitable approach would still be to conduct two similar feasibility studies, one on the basis of subsidized prices and another on the basis of real prices. Outcomes of the two can then be compared to arrive at transparent amount of subsidies, which can in turn be used for making the right decision.

Besides, when Iran's membership of WTO is final, these very subsidies, especially in energy, will come under pressure. Transparency in the amount of subsidies will also help the country to weigh what should be expected once full membership of WTO is attained.

If serious notes are made of the aforementioned points, Iran can be hopeful of rationalizing its pricing system in the long term while averting the adverse consequences of any kind of shock therapy as well

NIOC Reports on Exploration Activities of Past Eight Years

The Exploration Directorate of NIOC has issued a report outlining the activities and achievements of the Dept during 1998 to March 2006.

A total of 15,163 km of onshore and 115,184 km of offshore areas were covered by 2D seismic operations during the period. The onshore operations were carried out in Dasht-e-Moghan, Bandar Abbas, Cheshmeh Khosh, Ahwaz, Mahshahr, Khanguiran, Darkhoein, Qom, Guonaveh, Qeshm Island, Lorestan province, Tabnak, Fars province. The offshore operations were confined to the Iranian waters of the Persian Gulf and the Sea of Oman.

Besides, some 6,270 sq km of onshore and 2,036 sq km of offshore areas were covered by the 3D seismic operations of the Exploration Directorate in the said period. The onshore operations were carried out in Khanguiran, Darkhoein, Shadegan, Ab-Teymour, Gorgan, Kernj & Parsi, Azadegan, Yadavaran, Jufeyr, Aghajari, Maroun, and Koupal. The offshore operations were confined to the Iranian waters of the Persian Gulf.

During the period, 43 exploratory wells were drilled by the Dept, 6 of which were in offshore areas. Some 21 exploratory wells are planned to be drilled by the end Mar 2010, out of which 3 will be in offshore areas.

Latest Progress in Iran's AMAK Project

Mohammad Bijan Far, executive manager of the associated gas gathering project (AMAK) with PEDEC, said: "Phase 1 of AMAK will be fully operational by end November this year, providing its financial problems are resolved and the contractors' debts are settled".

Talking to Fars news agency, he stated: "Phase 1 of AMAK, which was to be commissioned this June, has been delayed a bit and is behind the initial schedule".

Explaining the reason for the delay he said: "The cash flow problems of the contractor as well as some technical/professional issues plus shortages in the needed materials and equipments are the main cause of the said delay. At present, most of the remaining units of phase 1 are at testing and pre-commissioning stages, which will be taking a long time to complete".

As for phase 2 of the project, he noted: "This phase, which consists of building pipelines for transferring sour gas yields of AMAK to Razi Petrochemical Complex and a dehydration/pressure-boosting station, will come on stream by early Nov this year".

As for the progress in the EPC projects of phase 1 of AMAK, Bijan Far explained: "Maroun, Koupal and Ab Teymour projects indicate 97.83%, 97.38% and 96.8% progress respectively. Construction of the pressure-boosting station has made around 90% headway and the pipelines 94.2%".

The official concluded: "While the overall progress of the project is 97.65%, the EPC projects of phases 1 and 2 indicate 99.3% and 91.76% progress respectively".

Limited PSA to Replace Buy-back Mode

The buy-back mode of contract for Iran's oil industry projects is moving towards some kind of a 'limited production sharing' mode, says Hadi Nejad Hosseinian, Iran's deputy oil minister for int'l affairs.

Talking to Mehr news agency, the official added: "Because the present buy-back contract is short in nature, the contractors are not concerned about the long-term sustainability of the production of the given reservoir and hence opt for a design that would ensure a quick return of their investments".

Explaining the changes to be effected in the buy-back mode, he said: "To overcome the said problem and to ensure the long-term presence of the contractor, certain studies were carried out by the ministry of petroleum and a kind of a long-term contract has been sketched out. This is coupled with the establishment of a company for each project to supervise over the sustainable production of the given field. This company will be a subsidiary of NIOC and the contractor will have some shares in it as well".

Emphasizing that such a scheme would be applied only to fields that are too complex to be handled by domestic capability, the deputy oil minister added: "In such cases, the contracting party will undertake to transfer the relevant technological skills and commit to investing for sustainable production".

Regarding the remuneration and reward for the investor, he explained: "The remuneration and reward will be based on the expenditures involved and will have to be agreed upon for each case. That way, fluctuations in oil price will be irrelevant and the more the production the higher the profit for the contractor, regardless of the oil price."

Nejadhosseinian concluded by stressing: "This is yet a draft proposal and has to be first ratified by the NIOC board and then by Iran's Management & Planning Org".

Earlier in April Ali Mohammad Saeedi, a retired specialist of NIOC and a key figure in preparing the new version had said that a new mode of contract had been formulated and presented for consideration to Iran's ministry of petroleum".

According to Saeedi, the new version of oil contract was basically a kind of 'Product-Sharing' mode that did not run contrary to Iran's Constitutional Law. In the new version it has been proposed that for executing a given project, a company be established and 51% of its share be given to Iranian companies and the remaining 49% be allocated to the partner. Hence the partner, a foreign firm, would provide for 49% of the capital investment needs of the project. And since Iran owns the field, the foreign partner would be obliged to provide for an additional 25% of the required capital and hence Iranian part of the company would only have to provide for 26% of the capital investment.

Where Will Gas Yields of Phase 14 Land?

The tender for South Pars phase 14 will be held in the next couple of weeks, says Akbar Torkan, managing director of POGC. Talking to he stressed: "The needed approval for the task has been obtained from NIOC's board".

Naming three foreign companies interested in the project, he disclosed: "Ras Al-Kheymeh Investment Company has announced its readiness to participate in this tender along with Shell as the operator of the project. Another one is the South African Sasol, in collaboration with NPC and the third one is an Indonesian company, which is willing to invest up to $ 8 Bln in such projects in Iran".

Torkan emphasized: "Buy-back mode of contract will be used to develop Phase 14 of South Pars gas field".

The gas yields of Phase 14 were initially planned to be used as feed for Gas To Liquid (GTL) units; however, Torkan had recently disclosed that the output of the phase would be used locally. This latest remarks of POGC MD about export of the gases produced in the phases located in Site 2, which includes phase 14, in the form of LNG, contradicts his earlier statements.

According to Torkan, phase 14 is foreseen to be producing 2 bcf/d of gas.

Latest Statistics of Products of S.P Phases 1-5

According to public relations office of Pars Oil & Gas Company (POGC), the latest export cargo of condensates, produced by phases 1,2 & 3 and 4 & 5 of South Pars, brings the total volume of condensates produced and exported to date, since the 5 phases were commissioned, to over 165.973 Mln barrels.

So far, some 101.301 bcm of natural gas has been produced by the five phases and loaded onto the national gas network.

Step Taken for Development of Phase 11 of S.P

The service contract for the development of Phase 11 of Iran's South Pars gas field will likely be signed in early July 2006.

Akbar Torkan, managing director of Pars Oil & Gas Company (POGC) told ISNA: "NIOC has given the green light for signing the deal for the phase with Total. Once the contract is signed, Total will hold the EPC tenders for the upstream, midstream and downstream sections of the project".

Final Investment Decision (FID) on the project will be made only after the EPC tenders are held and relevant negotiations concluded. Given the time consuming procedures of holding tenders, receiving the bids and evaluating them, the FID will not be made anytime before early 2007.

The said service contract was to be signed in Feb this year and be followed by the EPC tenders. But, according to Torkan, POGC and Total were waiting for NIOC's decision on the issue.

Concerning South Pars phase 13, the development of which has been assigned to Shell, Torkan disclose that talks with Shell were proceeding with some delay, but hoped that the contract would be signed in the near future.

As for the tender notice for the development of Phase 14 of South Pars, he said: "We are still waiting for the approval of NIOC's board in this respect".

Contract Signed for 'IGAT VII'

The EPC contract for the project to construct Iran's "IGAT VII" gas pipeline was signed between NIGC and Khatam Al-Anbia HQ on Wednesday 7th June. This followed the discarding of the project's tender procedures. The 900 km long and 56" wide pipeline is the first phase of the line and is to transfer the gas produced in Assalouyeh to Iranshahr in Sistan & Balouchestan province.

The pipeline is designed to transfer 50 mcm/d of gas in its first phase and will raise to 110 mcm/d of gas when its second phase completed.

The second phase is 265 km long and stretches from Iranshahr to the Iran-Pakistan border. Construction of 8 gas pressure-boosting stations for the entire IGAT VII will be carried out in the second phase. The stations will be needed if the line is to carry gas export to Pakistan and India as well.

The value of the first phase of the project is estimated at $1.3Bln, which will raise to a total of $ 2.2 Bln if the second phase is built.

The project is expected to take 30-36 months to complete from its effective date. Financing of the project is to be secured by Khatam Al-Anbia HQ.

NIOC to Hold Tender for 12 New Oil Blocks

"Since there was hardly any enthusiasm for the tender held for the development of 12 of Iran's 16 oil blocks, a fresh tender will be held for another 12 oil blocks", says Mahmoud Mohaddes, director of the Exploration Department of NIOC.

Elaborating further, Mohaddes said: "Those 16 blocks were; Moghan 1 & 2, Kouhdasht, Khorram Abad, Kermanshah, Bijar, West/East Mokran, Zabol, East Jazmourian, Saravan, Tabas, Garmsar, Saveh, Raz and Maraveh Tappeh. Their development tender was held in 2002, but ultimately only four ended up with contracts".

He went on: "Only five proposals were submitted for the tender, one of which was discarded as unreasonable, but the deals for Saveh, Kouhdasht, Garmsar and Khorram Abad oil blocks were finalized. The contracts for the first two blocks were signed last year and the ones for the remaining two blocks will be signed within a month because only lately Iran's Economic Council (EC) gave the needed green light for their contracts".

Explaining the reason for that lack of enthusiasm in the contracting companies, he said: "Compared with the terms of contracts in other parts of the world, which are of production-share type, the contractual conditions in Iran are tough because the interested company is required to first sign an exploration deal and then later a buy-back deal for the development. That is why 12 new oil blocks will be put out to tender instead of the previous 12 blocks".

As for the reason to go for concurrent exploration/ development mode, Mohaddes stated: "The issue of separating development from exploration was raised again in the EC meeting, but since, without the development part, the contractor of the exploration section will have no great incentive, it was decided that the previous trend be resumed".

Pointing to Anaran oil field, he remarked: "We have six months time for talks with the contactor of the development of Anaran field. We may come to terms and sign an exploration/development deal with the said company. Otherwise they can collaborate in the project". Mohaddes concluded: "NIOC has allocated some $ 200-250 Mln for exploration activities during this Iranian year".

8 Foreign Firms Qualified for Phases 19-22 of S.P

Akbar Torkan, managing director of Pars Oil & Gas Company (POGC) said: "A number of foreign companies had taken part in the pre-qualification tender held for the development of South Pars phases 19, 20, 21 and 22, out of which eight companies have been qualified".

Talking to Fars news agency, he added: "Shell, Total, Eni, Statoil, Sinopec, Lukoil, the Australian BHP and the Brazilian Petrobras are the said eight companies and they have 4-5 months to submit their technical proposals".

POGC held a pre-qualification tender for the four Phases in February this year and April 1st was set as the deadline for the submission of companies' qualifying documents.

The main objectives of the development of these phases are:

- Production of 100 million cubic meters per day of treated natural Gas.
- Recovery of petrochemical grade Ethane gas at a min rate of 2.0 million tons per annum.
- Recovery of premium grade LPG at a min rate of 2.1 million tons per annum.
- Production of 160,000 barrels per day of treated stabilized Condensate.
- Recovery of Sulfur at a rate of 1,000 tons per day.

The work scope of the project includes fabrication and installation of four wellhead platforms, bridges and flare platforms, construction of sub-sea pipelines, onshore gas treating plant, central power generation facilities, construction of LPG jetty, installation of SBM for condensate export, installation of a main seawater intake, installation of a central seawater desalination unit and the needed infrastructure.

PEDEX Starts Drilling of Yortsha Sub-terrain Gas Storage

Iran's Pars Energy-Gostar Drilling & Exploration (PEDEX) a subsidiary of Mostazafan Foundation (MF) has started drilling of the first appraisal well in Yortsha, the depleted water basin located in Varmain, southeast of Tehran. The Company has recently purchased its first drilling rig called "PEDEX 101", and the Yortsha project is the rig's first drilling operation.

The 1,000 hp rig started the drilling on 1st of this June and is to complete the job within 40 days. PEDEX is to drill two wells for phase 1 of the project to specify the basin's capacity to store gas. It is estimated that up to 600 mcm of gas could be stored in the basin.

PEDEX has also participated in the tender held in 2005 by NISOC for drilling 39 wells in Ahwaz region and was declared the lowest bidder in Feb 2006. Even then, the project has not yet been officially awarded to the Company.

According to the managers of PEDEX, another two drilling rigs of 2,000 hp will be joining the Company's rig fleet by March 2007.