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Prospects For Crude Oil Prices & GCC Investment Strategies

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The world now is divided into a **paper economy**, which is financial and driven by psychological factors with speculators motivated by quick profit, and a **real economy** where prices of physical goods and projects are rising outside the rule of supply and demand. In the valuation of paper WTI, which is a world marker despite the fact that physically this light/sweet crude oil does not trade outside the US, **there is a void between less than US\$60 per barrel and more than \$120/barrel**. This means paper WTI can go in any direction in the years ahead.

While the price of paper WTI has risen less than six-fold since 2002, however, those of paper commodities and physical projects in some cases have soared ten-fold. A 615,000 b/d refinery in Kuwait in 2002 had a budget of US\$2 billion; now the cost estimate for this is \$20 billion.

It is important to note, however, that the paper economy now reflects a bubble which is bound to burst and cause the real economy much harm. **When will the bubble burst?** This is a universal question.

The paper economy consists of commodity bubbles; no one knows the bubble of which commodity will be the first to burst and how it will affect the other bubbles.

While the paper economy is a thing of the rich world, **the main engine of growth for the real one is coming from the emerging economies** (EEs) such as the petroleum-exporting part of the Greater Middle East (GME), China, India, Russia, etc. So the prices of physical oil are rising in line with the prices of paper oil.

Real wealth is migrating from the rich world to the EEs at such a rapid pace that I wonder whether the state of world peace is sustainable. News Service No. 17 of the APS newsletters, which the APS Energy Group is publishing, lists the number of conflicts that are now affecting world peace (see news17LebHoldsAllConflictsApr21-08).

With food prices having gone up sharply across the globe, there is talk of a looming war over natural resources. This talk follows **the 11th International Energy Forum in Rome** which on April 20-23 brought together energy ministers from 74 states. The debate covered much of the world's problems, including under-investment in petroleum and concentration on biofuels. The concentration on biofuels is adding to a global food crisis.

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In Rome, Saudi Petroleum and Mineral Resources Minister 'Ali al-Na'imi on April 22 warned that the kingdom's crude oil production capacity will not increase beyond the 12.5 million b/d target set for end-2009, meaning lack of spare capacity beyond 2009 will cause oil prices to remain high, with paper WTI on April 22 having risen to \$119.90/barrel. He said there was no shortage of crude oil in the physical market, but warned that the world will face a continuing shrinkage of spare capacity to produce petroleum in the years beyond 2009.

Some say even \$200/barrel would not be out of the question. Projecting such a level is a gross exaggeration of things. But I find myself at a loss of following any logic; and the planners in the six-state Arab Gulf Co-operation Council (GCC) - which groups Bahrain, Kuwait, Oman, Oman, Qatar, Saudi Arabia and the UAE - are equally as confused when it comes to their investment strategy.

The latest oil price surge - pushing paper WTI to nearly double its level a year ago - has the components of a classic bubble, when prices climb far above their intrinsic value. The burst comes when investors realise the assets are over-valued. But the growing world thirst for physical crude oil, mainly from rapidly expanding EEs, means frustrated consumers may not get any relief soon.

Paper WTI on April 25 came close to \$120/barrel on news that a ship under contract to the US Defence Department fired warning shots at two Iranian boats in the Persian Gulf. Paper markets were weighing the effects of a pipeline attack in Nigeria and a looming refinery strike in Scotland. US retail gasoline, which at times rises in tandem with paper WTI, on April 25 was \$3.60 a gallon.

OPEC, accounting for about 40% of the world's physical crude oil, insists it is supplying more than enough. Speculative traders bid up the price of paper WTI - or paper Brent - as a hedge against inflation and as protection from a falling dollar. This combination feeds the bubble.

It is becoming harder and more expensive for oil companies to find and tap new petroleum reserves - troublesome given forecasts that the world's energy needs will rise more than 50% in the next two decades. Goldman Sachs says paper WTI could average \$110/barrel by 2010, up from a previous forecast of \$80, and that a spike as high as \$200/barrel is possible in case of a major supply disruption.

Nor is it wise to ignore those who say paper WTI could fall to \$80/barrel this year and to \$50 in the next three or four years as more global supply comes on line. Demand already has begun to wane in the US, where fuel prices are causing turmoil in an economy already saddled with recession fears, a housing and credit crisis, and dismal retail sales.

American drivers have begun to cut back on gasoline consumption. Some people have taken to riding bikes to work or organising car pools. The sale of gas-electric hybrid vehicles is up. Larger trucks and SUVs selling slowly. It is unclear how much a drop in oil prices could reduce gasoline prices in the US.

Prices in the US do not always move together as they are subject to separate supply/demand forces. While US physical crude prices have risen 80% in a year, gasoline's rose only 24%. The one thing I have learned in 40 years of my career is that oil prices are never where they should be.

The GCC Investment Strategies

Saudi Arabia is the trend-setter for the GCC investment strategists. But all are confused as none of the six states has come out with a clear investment strategy concerning capacities in oil and gas production,

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refining, logistics, petrochemicals, etc. The confusion stems from a wide range of uncertainties - from what is to happen to Iran's nuclear and regional ambitions in the coming months and years, with the US presidential elections due in November 2008 being a key factor, to constantly changing but steadily rising project costs in the upstream, midstream and downstream branches of the petroleum industry.

One of the factors of uncertainty is investment in alternative fuels, although Saudi Arabia and the rest of the GCC know well that conventional petroleum will remain the dominant source of energy in the foreseeable future. The other is the state of the world's economy and the fate of the US dollar. Only Kuwait pegs its currency (the dinar) to a basket of currencies; the other five are pegged to the US dollar and are not likely to change their monetary policy in the near future.

Saudi Arabia: Although it has been officially said that the state-owned Saudi Aramco will not expand its 11.3 million b/d crude oil output capacity beyond 12.5 million b/d by end-2009, in reality it will be able to produce more than **13.5 million b/d in the subsequent years**. This is proven by a five-year drilling programme and a list of E&P projects announced recently by Saudi Aramco. In addition, Saudi Aramco's condensate/NGL production will rise from about 1 million b/d to nearly 1.5 million b/d. So Saudi Arabia will be able to produce **15 million b/d** of crude oil and gas liquids by 2012/13.

The UAE: With the emirate of Abu Dhabi already having the capacity to produce more than 2.6 million b/d, the UAE's total capacity now exceeds 2.7 million b/d and should reach **4 million b/d by 2012**. Almost all the expansion will be in Abu Dhabi, whose proven oil reserves account for more than 95% of the UAE total. In addition, the UAE will raise its production of condensate and NLG from 400,000 b/d to 700,000 b/d. So the total will come to **4.7 million b/d** for crude oil and gas liquids by 2012. This excludes Abu Dhabi's LNG production and exports.

Kuwait: Now with a capacity of 2.8 million b/d, Kuwait will be able to produce more than **3 million b/d by 2012**. Its expansion plan, to raise the capacity to 4 million b/d within four to five years of work, has been stalled since the early 1990s by parliament whose members have been opposed to involvement by international oil companies (IOCs) in its "Project Kuwait" programme to expand its northern and western oilfields. But parliament was dissolved in March and elections set for May could bring in realists who might ease the opposition to IOC role. Yet **rising project costs and a shortage of skilled human resources and materials** - a worldwide problem - will cause further delays. In addition, its production of NGL will rise from 300,000 b/d to 600,000 b/d, so its production of oil and gas liquids will come to **3.6 million b/d** by 2012.

Qatar: Now with a capacity of 860,000 b/d, Qatar is raising its crude oil production potential to 1.2 million b/d in 2010 and 1.5 million b/d by 2015. In addition, it will be producing 800,000 b/d of gas liquids - excluding LNG - so its total will come to **2.3 million b/d**. Qatar already is the world's biggest exporter of LNG, whose capacity would reach as much as 83 million tons/year by 2014 or before. The total of its oil and gas production, including LNG, will by 2015 come to **5 million b/doe**.

Bahrain: A negligible producer of crude oil, Bahrain gets a 150,000 b/d share of crude oil production from Saudi Arabia out of a joint offshore field. Together with gas liquids, these come to about **200,000 b/d**, a level expected to be maintained through 2012/15.

So the total of crude oil production from the six GCC states will rise from 18.54m b/d now to 20.5 million b/d by 2010 and 23 million b/d by 2012/15. With gas liquids (excluding LNG), the total will rise from about 20.7 million b/d now to **26.6 million b/d by 2012/15**.

Iran puts its current crude oil production capacity at 4.2 million b/d. But independent estimates put this at less than 3.8 million b/d. Iran now is said to be losing about 500,000 b/d of crude oil production capacity every year due to severe reservoir damage.

Iraq is raising its crude oil production capacity from 2.5 million b/d now to 3 million b/d by end-2008 and plans to increase this to as much as 6 million b/d by 2012/13.

OPEC: Overall expansion plans by the 13-state OPEC are to add around 12.8 million b/d of crude oil production to 48 million b/d in 2012. But actual additions could be only around 5.5 million b/d to boost OPEC combined crude oil production capacity to 40.7 million b/d. The figure does not include NGLs, which could rise by about 1.2 million b/d to around 5.7 million b/d to push **OPEC's total oil and NGL output capacity to 46.4 million b/d in 2012/13**. In this increase, we in APS have taken into account a decline in production capacity in Venezuela and Indonesia, and have assumed that any further fall in Iran's capacity will be offset by new fields in the country coming on stream in the next four to five years.

In OPEC's reference case, demand for its crude oil is projected to rise from 35.9 million b/d in 2010 to 40.6 million b/d in 2015. In the high growth scenario, the demand will increase from 36.4 million b/d in 2010 to 42 million b/d in 2015. In the low growth case, it will fall from 34.7 million b/d in 2010 to 27.2 million b/d in 2015.

Saudi Drilling Expansion Plan: Saudi Aramco is poised to sanction an ambitious five-year plan, boosting its drilling activity by a third and increasing investments levels by 40%, despite Riyadh claiming it has no plans to increase crude oil production capacity before 2020. A final version of Saudi Aramco's plan, which runs from 2009 to 2013, is expected to be approved by the company's board and the Petroleum Ministry by mid-May, following a six-week review of a draft proposal reported on April 25 by the Middle East Economic Digest (MEED).

MEED quoted sources close to the state oil giant as saying Saudi Aramco will bolster the number of wells drilled around the kingdom by a third to 248, compared with an original target of 187. Investment on projects will be increased to \$13.7 billion from \$10.7 billion under the draft plan. Much of the increase in drilling activity will be aimed at sustaining the kingdom's production target of 12.5 million b/d, which it expects to reach by end-2009.

However, given Saudi Aramco's success in both discovering fresh finds and redeveloping previously mothballed fields such as Manifa, it appears that the world's largest national oil company (NOC) may seek to boost capacity beyond 12.5 million b/d, regardless of its stated view on global demand for conventional crude oil.

The kingdom had previously said it could take its crude oil production capacity up to 15 million b/d. The plan reported by MEED also includes a US \$4.1 billion commitment to upgrade existing facilities at the kingdom's landmark Ras Tanura refinery, compared with an initial investment of US\$2.39 billion. Saudi Aramco recently cancelled a planned 125,000 b/d refinery upgrade at Ras Tanura, increasing speculation it is considering a partnership with Saudi Basic Industries Corp (SABIC) to integrate the refinery with a petrochemicals plant.

However, the budget for some plans has been cut. Saudi Aramco has committed \$1.45 billion to the Karan gas field and processing facility

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to hit production of 1,500 MCF/day by 2012. In Saudi Arabia alone, demand for natural gas is expected to reach 14,500 MCF/day by 2030, compared with the current 5,500 MCF/day. Demand for natural gas in all the other five GCC countries is increasing as well.

Saudi Aramco will spend \$2.58 billion on offshore maintenance and new drilling, compared with \$2.25 billion previously, marking a new emphasis on the kingdom's offshore fields. According to Saudi Aramco, the offshore in Saudi Arabia is as promising as the onshore. It sees the future in the offshore. Much of its offshore development has focused on the Safaniyah, Marjan, Berri and Zuluf fields, but further development is needed, mostly to provide relief to the ageing Ghawar, the world's largest onshore field.

Saudi Aramco has devoted \$1.15 billion for maintenance of Safaniyah, the largest offshore oilfield in the world, which boasts production of about 1.7 million b/d.

Oman: Oman is the GCC country which has seen its crude oil production drop steadily in the past eight years, with the amount of water coming out of depleting oilfields having risen sharply. Petroleum Development Oman (PDO), the main concessionaire which is controlled by the state and operated by Shell, is exploring the possibility of using naturally occurring bacteria to increase oil production. PDO's Managing Director John Malcolm in late April said the company was working with Sultan Qaboos University to develop microbial Enhanced Oil Recovery (EOR) and its use to increase production.

"No [EOR] technology is off our agenda", Malcolm said at the Society of Petroleum Engineers conference on EOR techniques. He said PDO was also looking seriously at "in situ combustion" and the use of surfactant polymers, the technologies still in their infancy. He added: "At PDO, we were stressing the need to contain costs while planning for conventional and EOR projects. Our thinking on EOR was still tempered by the fear that the high cost associated with such projects might not be economically feasible over the long term".

However, in the last two years the company's thinking has changed with paper WTI shooting up from \$60 to \$120/barrel. Malcolm said PDO was moving towards becoming a global leader in the application of EOR processes. He said: "We are one of the few oil companies in the world which is executing world-scale projects in each of the three commonly-used EOR technologies: thermal, chemical and miscible gas".

OPEC & IEA Views

During the forum in Rome, OPEC Secretary-General Abdullah al-Badri of Libya said uncertainty about the global economy and future world oil demand, the shift to alternative sources of energy and rising project costs made it difficult for oil-exporting countries to embark on expensive capacity expansions. He stressed **the need for demand security** in an "increasingly inter-dependent energy world". He said: "Just like anyone else, oil producers do not want to invest in capacity that will not be used. Without the confidence that additional demand for oil will emerge, and without the market signals that long-run prices are supportive, the incentive to invest can be affected".

Iraqi Oil Minister Hussein al-Shahristani said the oil price was not as high as it seemed because it was measured in the US dollar, which has hit record lows against other currencies. Shokri Ghanem, head of Libya's state-owned National Oil Corp (NOC), said: "Prices will have to stay high in the long term to encourage exploration and production".

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IEA's Executive Director Nobuo Tanaka, who was in Riyadh before the Rome event, was met with silence from an audience at the forum when he asked if the participants shared his view that crude oil prices were too high. Acting Deputy Secretary of Energy Jeffrey Kupfer, representing the US at the forum in the absence of Energy Secretary Sam Bodman, also said crude oil prices were too high.

The Chávez Experience:

Having spearheaded resource nationalism across the globe in recent years and having nationalised his country's oil industry, Venezuelan President Hugo Chávez is in trouble on the domestic front. He is hoping that a new expropriation spree will fire up his supporters, at least long enough to keep his allies from suffering heavy defeats in November's state and municipal elections.

In recent weeks Chávez ordered the nationalisation of the foreign-owned cement industry and the country's biggest steel company. He nationalised one of Venezuela's biggest milk producers, its largest cold storage and distribution company and several sugar plantations. It is hard to know whether he will get the full political bang he is seeking. His popularity has fallen steadily since December when voters rejected his proposed constitutional reform which would have allowed him to stand indefinitely for re-election.

If nothing else, the nationalisations will allow Chávez's government to use cheap milk and cement to bolster his support among Venezuela's poor. What is certain is that the country's economy will suffer. His aides have proved they do not have the skill - or the honesty - to run these businesses.

Bungled management is responsible for a decline in production at the state-owned *Petróleos de Venezuela* (PDVSA). The expropriations, added to exchange and price controls, are holding back much needed private investment. Even high oil prices are not helping. **Venezuela has lost about 1 million b/d of its crude oil and gas liquids production capacity since late 2002**, because of under-investment in and neglect of vital fields. As in Iran, under-investment in the petroleum sector is causing structural reservoir problems.

High global food prices and unfettered government spending have pushed annual inflation in Venezuela well past 20%, as in Iran, while price controls are producing shortages of basic foods. Like his Cuban mentor Fidel Castro, Chávez believes what is happening is part of a global conspiracy emanating from the US.

In 2007, Chávez forced IOCs to give up control of oilfields in eastern Venezuela, and he nationalised the country's largest telecommunications company and the power utility serving Caracas. These new expropriations were another attempt to control all of Venezuela's economic and political life while providing more opportunities for patronage and corruption.

Venezuela's voters have shown they can see through such manipulations. Chávez lost last year's referendum because students, business leaders, members of the usually ineffectual opposition and some former supporters were willing to work together. They have an opportunity to deal another blow for the sake of democracy in November's elections. The vast majority of Venezuela's state governors and mayors are Chávez supporters. His opponents say that defeating them at the polls would send a clear message that Venezuelans are truly fed up with Chávez's authoritarian ways.

The Global Perspective

Jet fuel has become so expensive that four airlines stopped flying in recent weeks. This is just a part of the global energy picture. It is signalling a profound change in how the world will live - trends which, so far as anyone can predict, will only become more pronounced as energy supplies dwindle and the global struggle over their allocation intensifies.

Energy of all sorts was once hugely abundant, making possible the world's economic expansion of the past six decades. This expansion benefited the US above all - along with Europe and the Pacific. Recently, however, the EEs have sought to participate in this energy bonanza by industrialising and exporting a wide range of goods. This, in turn, has led to an unprecedented spurt in global energy consumption - a 47% rise in the past 20 years alone.

An increase of this sort would not be a matter of deep anxiety if the world's primary energy suppliers were capable of producing the needed fuels. Instead, a marked slowdown in the expansion of global energy supplies faces a precipitous rise in demand. There is a new world order characterised by fierce international competition for dwindling stocks of oil, natural gas, coal and uranium, as well as by a tidal shift in power and wealth from energy-deficit regions to energy-surplus ones. In the process, the lives of everyone will be affected in one way or another - with poor and middle-class consumers in the energy-deficit states experiencing the harshest effects.

As recently as 1990, the nations of the OECD consumed about 57% of world energy; the Soviet/Warsaw Pact bloc, 14%; and only 29% was left to the developing world. But that ratio is changing: With strong growth in the EEs, a greater proportion of the world's energy is being consumed by them. By 2010, the developing world's share of energy use is expected to reach 40% and, if current trends persist, 47% by 2030.

China alone is projected to consume 20% of world energy by 2025. If the trend lines continue, China will then have overtaken the US as the world's leading energy consumer. India, which in 2004 accounted for 3.4% of world energy use, is projected to reach 4.4% by 2025, while consumption in other EEs like Brazil, Indonesia, Malaysia, Thailand and Turkey expected to grow as well. These EEs will have to compete with the mature economic powers for access to remaining untapped reserves of exportable energy - in many cases, bought up long ago by the private energy firms of the mature powers like ExxonMobil, Shell, BP, Chevron and Total.

Of necessity, the new contenders have developed a potent strategy for competing with the Western IOCs: they have created state-owned IOCs and fashioned strategic alliances with NOCs which now control oil and gas reserves in many of the major energy-producing nations. China National Petroleum Corp (CNPC) will collaborate with Gazprom to build pipelines and deliver Russian gas to China. Sinopec has a JV with Saudi Aramco exploring for natural gas in Saudi Arabia and will market Saudi crude oil in China. Several of these state-owned IOCs, including CNPC and India's Oil and Natural Gas Corp (ONGC), are set to collaborate with PDVSA in developing extra-heavy oil in the Orinoco belt once controlled by Chevron.

By most accounts, the global supply of oil will expand for another decade before reaching a peak and beginning to decline, while supplies of natural gas, coal and uranium will probably grow for another decade or two before peaking and starting their own fall.

The US Energy Department claims that world oil demand, expected to reach 117.6 million b/d in 2030, will be matched by a supply which could hit

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117.7 million b/d (including liquids derived from allied substances like natural gas and Canadian tar sands). But some consider this unrealistic. Addressing a London oil conference in October 2007, Total CEO Christophe de Margerie said 100 million b/d "is now in my view an optimistic case".

World oil demand will continue to grow as hundreds of millions of newly-affluent Chinese and Indian consumers line up to purchase their first car (Tata's Nano in India now sells for \$2,500). Oil super-giant fields like Ghawar in Saudi Arabia and Canterell in Mexico are in decline or expected to be so soon.

Ten states have 82.2% of the world's proven oil reserves: Saudi Arabia, Iran, Iraq, Kuwait, the UAE, Venezuela, Russia, Libya, Kazakhstan and Nigeria. Three states - Russia, Iran and Qatar - have 55.8% of the world's natural gas.

The oil-exporting states will earn more than \$1.1 trillion from the importing countries in 2008. A substantial part of this money has been deposited in sovereign wealth funds (SWFs), giant investment accounts owned by the oil states and deployed for the acquisition of valuable assets around the world. In recent months, the SWFs of the GCC have been taking advantage of the financial crisis in the US to purchase large stakes in strategic sectors of its economy.

In November 2007, for example, the Abu Dhabi Investment Authority (ADIA) acquired a \$7.5 billion stake in Citigroup, America's largest bank holding company; in January 2008, Citigroup sold an even larger share, worth \$12.5 billion, to the Kuwait Investment Authority (KIA) and several other Middle Eastern investors, including Prince Alwaleed ibn Talal of Saudi Arabia.

The managers of ADIA and KIA insist they do not intend to use their newly-acquired stakes in Citigroup and other US banks and corporations to influence US economic or foreign policy. But it is hard to imagine that a financial shift of this magnitude, which can only gain momentum in the decades ahead, will not translate into some form of political leverage.

Russia has risen from the ashes of the Soviet Union as the world's first energy super-power. Russia now is the world's leading supplier of natural gas, the second largest supplier of oil and a major producer of coal and uranium. Though many of these assets were briefly privatised during the reign of Boris Yeltsin, Vladimir Putin has brought most of them back under state control. He has since used these assets in campaigns to steer policies in Europe, as well as in nearby Central Asia.

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