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Unocal Deals Blow To China's Energy Strategy

Unocal shareholders will have the last laugh, having set off a Chinese-US bidding war that has ratcheted up the value of whatever sale deal they vote for on Aug. 10. Unless CNOOC Ltd. ups its offer, the sweetened takeover bid from Chevron — endorsed by the Unocal board last week — should defeat China's first attempt to buy an international oil company outright. Strictly speaking, CNOOC is only interested in selected Unocal assets. That's what makes the saga doubly frustrating for China: whether it targets specific assets or an entire company, serious competition combined with political hostility is frustrating its drive to obtain global upstream assets.

Chevron's raised bid, structured as 40% cash and 60% stock, values Unocal at \$63.01 per share, based on the Jul. 19 closing price. Unocal can choose either \$69/share or 1.03 Chevron shares, or a combination of \$27.60 in cash and 0.618 of a Chevron share. Chevron will issue around 168 million shares and stump up \$7.5 billion in cash. CNOOC's all-cash offer of \$67/share remains on the table, but equity analysts reckon anything less than \$70/share would be insufficient to swing Unocal shareholders around. The Chevron offer has full US regulatory approval, whereas US lawmakers have moved directly to block a CNOOC takeover.

As CNOOC's much bigger sisters PetroChina and Sinopec have found, the big deals tend to be done at state level by the Beijing government or depend on leveraging access to the Chinese market. In the Unocal case, CNOOC has neither. CNOOC's first foreign acquisition — of Indonesia's Widuri and Cinta fields from Repsol YPF in 2002 — was also its last pure upstream oil deal. Since then, it has exploited its role as gatekeeper for China's liquefied natural gas (LNG)

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Shell's New Start Marred By Old Doubts

Last week should have marked a watershed for Royal Dutch Shell as the Anglo-Dutch supermajor moved to a single listing in London. But the great occasion was overshadowed by fresh concerns over Shell's upstream business, this time having to do with costs. A doubling of the budget for its Sakhalin-2 liquefied natural gas (LNG) project on Russia's Pacific Shelf has raised questions about the company's project management abilities and cast a shadow over its recently announced Russian asset swap with Gazprom (PIW Jul.18,p3). Launched in 2003 with costs projected at \$10 billion, Sakhalin-2 is now likely to cost around \$20 billion. Shell is revising its capital spending for 2006 and 2007, which analysts estimate could rise by \$2 billion because of Sakhalin to a whopping \$17 billion. This compares to a planned \$12 billion at rival BP, which is ahead in its project cycle, with new developments ramping up, earning it a lot more money for share buybacks or new investments. Analysts also calculate that Sakhalin's internal rate of return drops from 22% to 11% under the new budget. Gazprom has said that the Sakhalin overruns will lead to a downward revision of Shell's asset value when they negotiate their asset swap, and analysts suggest Shell might have to pay an extra \$1 billion under the terms of the deal.

Sakhalin-2 is not the first Shell-led project to run into budget difficulties — it has also had problems with Bonga in Nigeria and the Athabasca oil sands in Canada. There have also been signs of cost creep at its Pearl gas-to-liquids (GTL) project scheme in Qatar. Shell is hardly the

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Oil Market Reliability: A Commercial Proposal

The following is a proposal to improve oil market reliability and operational efficiency through the commercial use of consuming-country strategic reserves by producing countries. If adopted, it could reduce that portion of today's oil price that results from current uncertainties deliverable capacity. It was written for PIW by Professor David Nissen of the Center for Energy, Marine Transportation and Public Policy at the School of International and Public Affairs, Columbia University.

The Background

Oil prices all along the forward curve have nearly doubled in the last 18 months. The spot price per barrel, as measured by front month futures on the New York Mercantile Exchange (Nymex) has moved from the low-\$30s range to around \$60 per barrel. Even more strikingly, the Nymex futures price for 2010 has moved from the high-\$20s to the high \$50s, driven by perceived changes in future market fundamentals — global demand, non-Opec supply, and Opec capacity and pricing policy. Along with transformed price expectations, the structure of the market itself has changed. Oil market security will be more challenging and price volatility will increase. The mechanisms for dealing with oil market security, however effective or ineffective in the past, are clearly inadequate for the future; policy toward oil market security must be rethought.

Global spare production capacity is essentially gone, strategic storage has been politically sterilized and importers' commercial inventories are at operational minimums — a market failure with inadequate deliverability to sustain reliability. While long-term pricing and deterrence and subsequent mitigation of strategic threats have been the principle focus of policy over the last 30 years, reliability must now become a new and explicit consideration.

Oil market dependence generally exposes importers to a variety of problems. Some arise from the intentional, strategic use of market power by the large producers in the global market — long-term price-targeting or geopolitical influence. The separate issue of reliability — what in an electricity system context would be called “loss-of-load probabilities” due to unintentional supply failures or unanticipated demand in the market — now affects both the average price level and volatility of oil prices.

Spare production capacity, commercial inventories and, since the mid-1970s, official strategic storage have been the coping mechanisms for meeting supply-demand imbalances. In October 1973, the Oapec oil embargo brought oil importers' dependence and oil market security to the forefront of policy concerns. The International Energy Agency was formed to coordinate security policy and in 1975 the US formed its Strategic Petroleum Reserve (SPR). The first Bush administration released SPR oil for strategic reasons at the time of the 1990-91 Gulf War. The Clinton administration engaged in further releases driven by budgetary pressures and a time swap intended to mitigate seasonal shortages, and was roundly criticized for nonstrategic use of the SPR.

With the second Gulf War in prospect, in the winter of 2002-03 short-haul supply interruptions owing to the general strike in Venezuela and civil disorder in Nigeria accompanied an increase in oil prices from the mid-\$20s to the mid-\$30s. Saudi Arabia was able to increase production and tilt the for-

ward price curve for crude downward into sharp backwardation. The current Bush administration resisted pressure to use the SPR for a winter-summer time swap to ease the short-term shortage and, with the exception of a 5 million bbl swap to individual refiners in September 2004 to offset hurricane damage to US Gulf of Mexico production, the current administration has made it clear that the SPR will not be used to sustain commercial reliability (PIW Jul.4,p1).

But we are facing a turning point in the global supply-demand balance: spare capacity will be minimal except in times of global recession; commercial inventories, now at operational minimums, will not be effective buffers to sustain short-term reliability; and policy, especially in the US, excludes the effective use of official strategic storage to smooth serious reliability problems.

Since oil product demand and non-Opec oil production capacity are highly inelastic with respect to price changes in the short run, the oil market's propensity for volatility is increasing. This propensity is amplified by the global shortage of refining capacity in the face of product markets fragmented by idiosyncratic, but uniformly tightening, regional fuel standards. Since production under Opec quotas will be high-graded to maximize revenue, what spare capacity is left will be harder to refine. Volatility is also being amplified by growing portfolio demand for “paper barrels” and their financial volatility.

The Proposal

With Opec production and capacity limits as a fact of life, an efficient way to provide additional reliable, commercial storage is for low-cost Opec producers to provide “commercial forward storage” located in consuming regions under the producer's commercial control, but with a call option sold to the consuming country for strategic release.

It would work like this: A low-cost producing country would acquire storage located in consuming regions — for example, the US and China. Storage could be filled from spare capacity, when available, at low cost — essentially variable operating cost of production plus transportation and fill costs. There would be little sacrifice of revenue, since production-to-storage does not count against Opec quotas, although some revenue may be foregone if diverting higher-quality crudes to storage displaced lower-value crudes supplied to the market. Storage could generally be used for commercially motivated time swaps. To assure no net increase in supply over quota, the structure of permissible time swaps would need to be endorsed within Opec.

This “commercial forward storage” capability has two attractive features. Commercially, it provides a mechanism for enhancing opportunistic deliverability. The commercial “real option value” of this capability is probably significant and may be attractive to producing countries on its own. But it offers

strategic possibilities as well. The sale of a “call option” for strategic release to the importing country host government enhances the commercial economics. With the cost-of-carry based on producers’ cost, this part of the strategic storage cost should be modest. There will also be some overlap between the incentives for commercial and strategic release that would have to be accommodated in the call option specification, but the physical deliverability would be available. Since the stored oil is physically located in the importing country, the call option can probably be made contractually credible.

As a very rough example, in the period 2000-05, there are six potential March-to-March one-year time swaps. For four of these six the futures market was in backwardation, with front-month prices an average of \$5.61/bbl above the one-year contract. Commercial inventories, stocked at spot market prices, probably couldn’t afford the cost-of-carry plus storage and the round-trip fill discharge cycle to sustain this option. But with the cost-of-carry at producers’ marginal delivery cost of less than \$5/bbl, the option can be financially hedged at values that start to make sense. An optimal physical discharge-fill strategy based on the popular “mean-reverting, random-walk” theory of commodity prices would be more sophisticated and even more lucrative.

The idea of Saudi participation in the SPR is not new. In 1991, the first Bush administration broached with the Saudis a proposal to store oil in the SPR with the lifting and transport costs paid by the US then full value to be paid later when the US opted to draw down the oil in the event of an emergency. With a low oil price and weak demand, the idea didn’t go anywhere.

What’s new in the present proposal is the commercial use to address reliability problems. Today, at much higher prices, global oil market reliability is significantly degraded in the prospective world of limited spare production capacity, lean commercial inventories and frozen official strategic storage. Commercial forward storage would be commercially viable and would provide deliverability that could significantly enhance global oil market reliability and reduce the uncertainty premium in the oil price.

The History

Through the 1990s, global oil demand grew annually at about 1 million barrels per day, but then fell below these levels in 2001 and 2002. Since then demand has surged, led by China, other Asian developing countries and the US. Global demand added 1.8 million b/d in 2003 and 2.7 million b/d in 2004. In China the automobile fleet has grown from 1 million vehicles in 1990 to 14 million in 2004 and 2.4 million additional units are expected this year. Asian developing countries in general have now reached income levels that will sustain rapidly growing transportation fuel demand for the foreseeable future. For every 1,000 people, China has eight automobiles, while Brazil has 132, Europe has 584 and the US has 940.

In another fundamental change, after meeting global oil demand for the last 30 years, non-Opec supply growth may stall. Opec crude oil production, at about 30 million b/d today, is about where it was in the 1970s, while non-Opec supply has doubled to over 50 million b/d today. But outside of Opec, limitations on recoverable resources and available access are beginning to bite. The current large cash flows to integrated oil companies are

increasingly being recycled to shareholders in dividends and stock repurchases, while upstream capital expenditure has been stunted. With growing demand and limited non-Opec supply, control over pricing and security depends on the management of spare capacity in the hands of low-cost Opec producers.

There has been significant spare production capacity in the oil market for most of the last 70 years, but control over this capacity has changed hands as supply sources evolved. Beginning in the 1930s, the US was the dominant producer and producing-state governments controlled supply. The Texas Railroad Commission (TRC) and similar state bodies managed production, supported by the US federal government through the Connally Hot Oil Act of 1935. When Mideast capacity became significant in the 1950s, the global market was split between domestic and foreign markets by a US import quota, with resource access for international supply controlled largely by the major oil companies.

When the TRC allowable reached 100% in 1971, effective control over the oil market shifted to the large low-cost exporters, a fact that was soon institutionalized in a series of nationalizations of the 1970s. When oil demand dropped after the bout of greedy pricing of the late-1970s, Saudi Arabia played “swing producer” for as long as possible, cutting production from 10 million b/d at the peak to about 3 million b/d by 1985, testing the kingdom’s ability to provide sufficient associated natural gas to fuel power and desalinization plants. After increased Saudi production led to a price collapse in 1986, Opec as a whole agreed to share the swing producer role through a regime of more or less successful production controls and then targeted pricing.

This worked until the beginning of 2004. With spare capacity below 2 million b/d — and nearly all of that difficult to refine heavy, sour Saudi crude oil — prices following the 2003 US-led invasion of Iraq went up rather than down. At its January 2005 meeting, Opec “temporarily” suspended its \$22-\$28/bbl target price band and ended the comforting “swing producer” model that had provided a coherent institutional structure within which to manage price targeting and market reliability.

Any “swing producer” must have large, state-controlled, low-cost capacity and a willingness to sustain spare production capacity for strategic and economic reasons. The cost of carry must be bearable for the optionality of the spare capacity to be justifiable. The short list of candidates includes Saudi Arabia and its neighbors. Hopes for alternatives such as Russia, the Caspian and West Africa fail as being costly, privately controlled, operated at full utilization and thus strategically irrelevant in the global market.

Recently, Saudi Arabia has restated plans to raise production to a long-term target of 12.5 million b/d by 2009, with planned spare capacity constrained to up to 2 million b/d only. Saudi Arabia’s announced intention to limit oil production capacity must be taken seriously. Both the Saudi government and Saudi Aramco have affirmed the intention to sustain production at near current levels for a century, avoiding the socially and politically destabilizing boom and bust cycles that have affected the Saudi economy over the last generation. In any case, this strategy is likely to be in its narrower economic self-interest, with higher prices more than offsetting limited volume. For the first time in 70 years, this leaves the global oil market with no institutional mechanism to control the upside of oil pricing and manage reliability through spare production capacity.

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