

Low Prices and the ‘New’ Geopolitics of Oil

Panel on ‘Energy, Security and Global
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RESEARCH

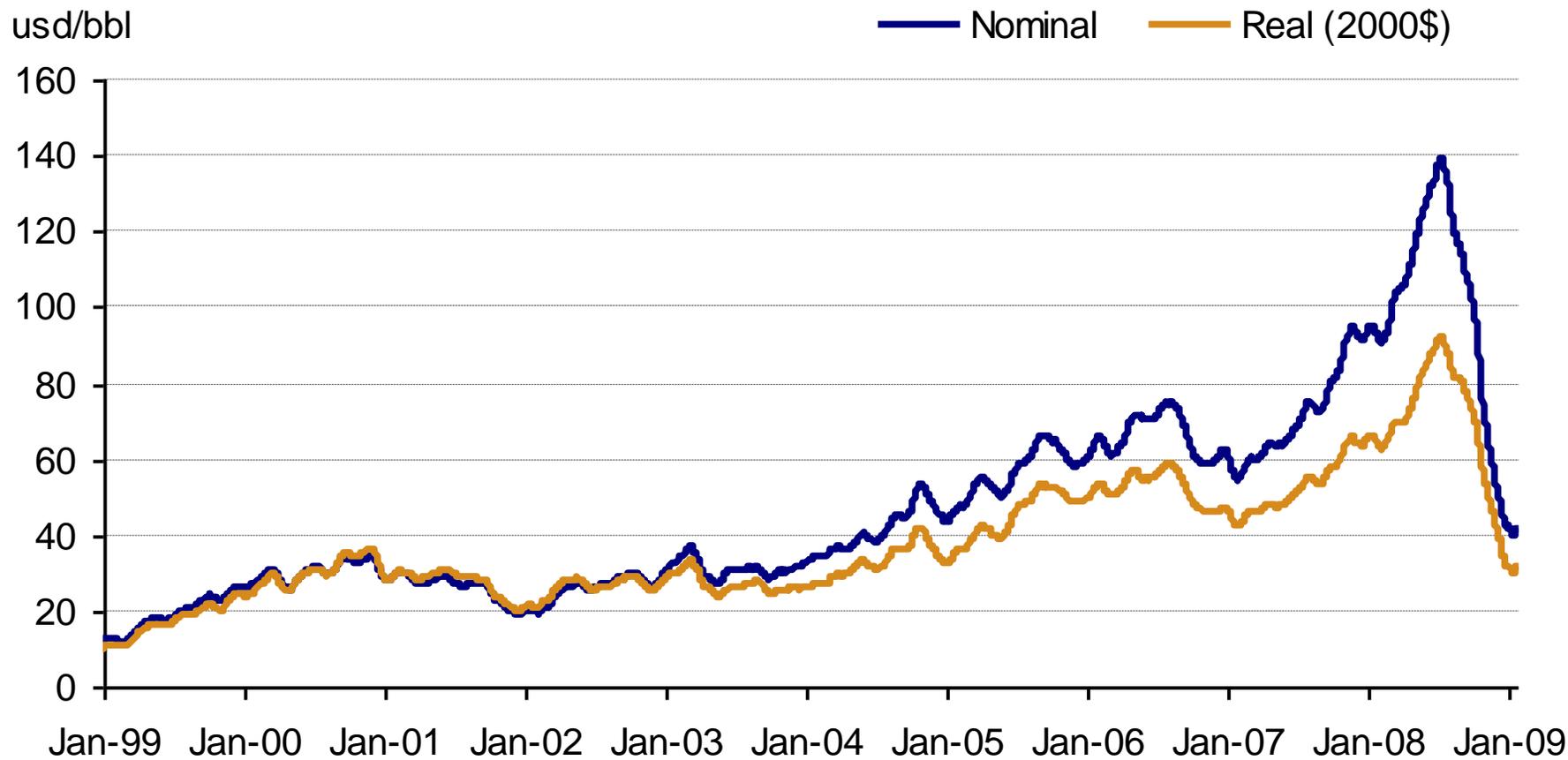
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Oil prices peaked in July 2008 and have slid ever since

WTI reached an all-time high of \$147.27/bbl, but the price in real terms (2000\$) topped out at \$96.84. The 36% October slide was the largest monthly drop ever. Prompt prices are now at levels last seen in 2004.

Real and nominal WTI (1999-2009 moving average)



We believe prices will not recover to previous heights any time soon, turning the geopolitics of oil on its head

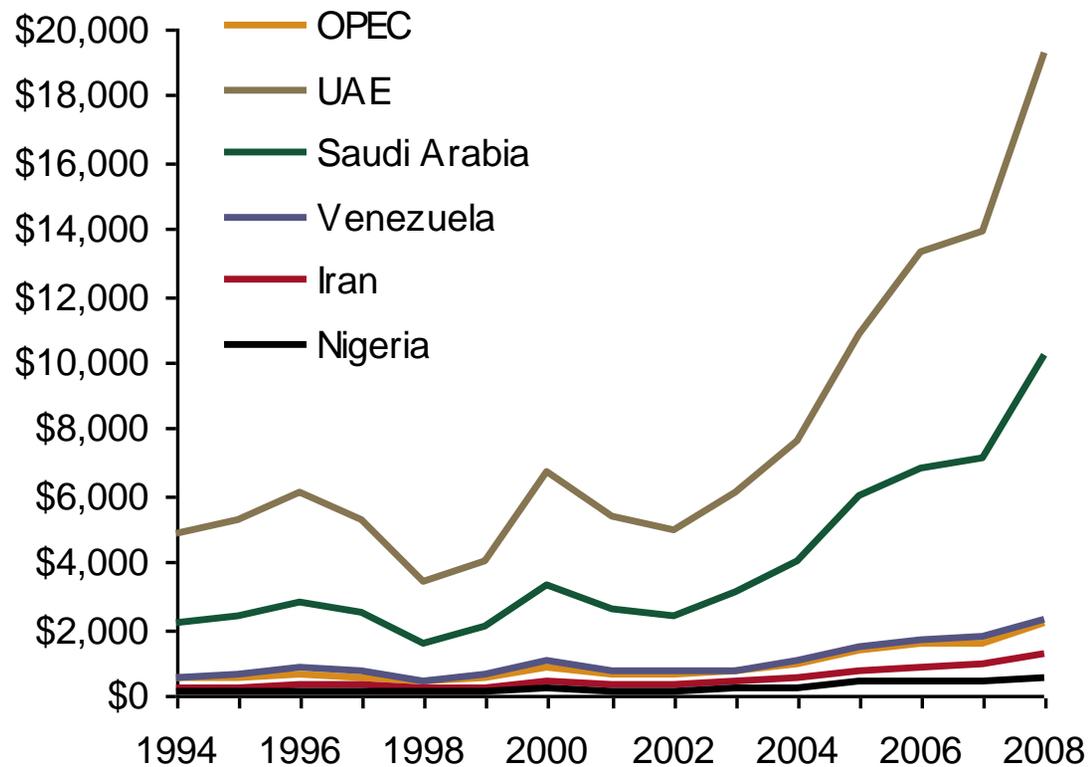
Revenue losses create major challenge to the domestic and foreign policies of Iran, Russia, Venezuela; opportunities for the US, Europe, China, Japan and others

- Budgets requirements are unlikely to be met for key exporters even if prices rise to \$75 by 2010
 - Venezuela needs oil well over \$100/bbl; Iran budget is negative at \$90/bbl; Russia is squeezed at \$75
 - Low revenues make it difficult to achieve domestic distributional/re-distributional goals
- For Iran, Russia, Venezuela, lower income impedes the achievement of fundamental foreign policy objectives that require use of funds
- With energy at the core of Russian international influence, it may take Moscow a while to recognize how dramatically the roots of its policies have been undermined
- For the US and others the low priced environment is also challenging, presenting opportunities that are also difficult to recognize and achieve; will these opportunities be squandered as they focus on economic recovery and are tempted to take advantage of exporters' current weaknesses?

Oil exporters have grown used to rising per capita income

The increase has been greatest for the Gulf Arab countries but the benefits have been tangible for all of the exporters

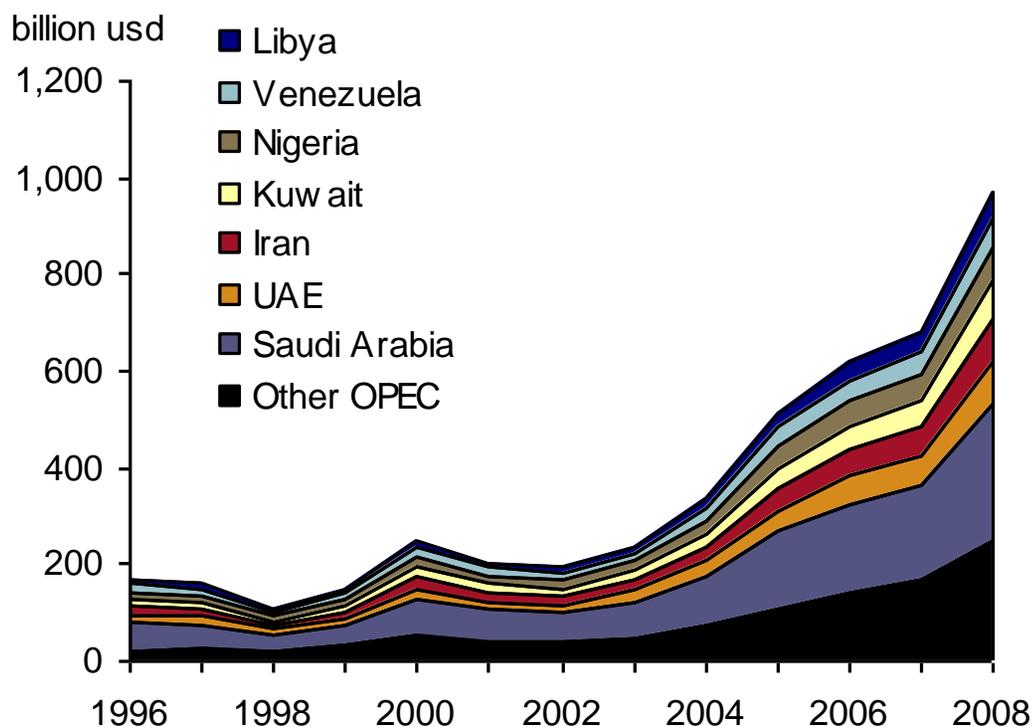
Real per capital income for OPEC countries (base=2000)



And also to ever-growing export income

Spending at home and abroad and the psychology of enhanced power and influence have accompanied higher prices

Nominal export income for OPEC countries



But now these assumptions are going to change dramatically

Most exporters will remain in a state of denial, expending global recovery to be just around the corner; others will be able to keep a lid on price increases for a while

OPEC Net Oil Export Revenue (\$IB) w

Country	1998	2002	2005	2008*	2009**
Algeria	5.7	12.3	36.6	70.3	31.2
Angola	3.2	7.5	22.8	68.1	30.3
Ecuador	1	2	5.9	10.2	4.5
Iran	10.7	18.6	48.2	82.4	36.6
Iraq	6.8	12.7	23.9	59.8	26.6
Kuwait	8.1	15	40.4	80.5	35.8
Libya	6	10.3	27.9	56.5	25.1
Nigeria	8.8	16.6	47	69.9	31.1
Qatar	3.4	6.9	19.7	38	16.9
Saudi Arabia	34.8	57.8	157.5	287.6	127.8
UAE	9.8	17.8	44.2	89.1	39.6
Venezuela	9.7	16.3	37.4	59.4	26.4
OPEC	107.9	193.8	511.5	971.8	431.9

Source: US DOE, LCMC. *Est. **Projected

How permanent will this decline be? What difference will it make?

If it lasts long, it will require major adjustments for exporters

- **Causes:** The economic decline and consequent drop in demand is only part of the problem; other structural factors were already at work softening oil markets; we expect markets to remain relatively soft for three to five years (the same length of time as the recent mini boom).
- **Venezuela is already feeling the squeeze:** Government more comfortable trying to get companies to reinvest; is in deep arrears with oil service firms needed to keep production steady, which has been a losing battle; government was already in debt, no longer has credit to finance foreign policy hand-outs
- **Russia is finding the power of the oil weapon waning rapidly, but still tries to command its former authority:** When will it learn that it needs foreign technology, capital and manpower to grow its hydrocarbon sector; how will state relations with Gazprom evolve? Will it find it more comfortable to be a member of the G8 or to be aligned with OPEC? How will the state deal with its integration with the world economy versus its desire for autarky in concrete issues like credit or the value of the rouble, or anti-inflation policy, or domestic employment?
- **Iran's soft foreign policies may be less in danger than consumer/employment policies at home** yet its stalled output growth is continuing to confront rising consumption and lower revenues; will the rulers be able to make accommodations for western firms, find ways to accommodate neighboring and other governments?

How will Europe, the US, China and others respond? permanent will this decline be?

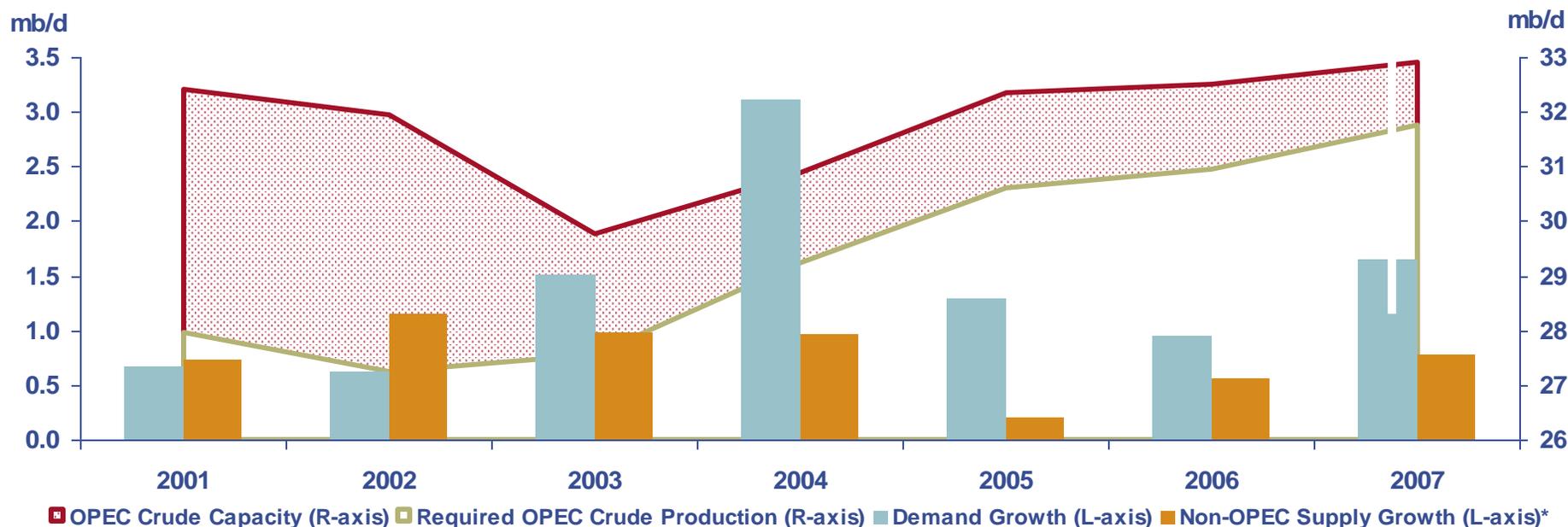
Softer prices will provide complex new opportunities

- **European Union leaders already are finding it critical to either tame Russian natural gas nationalism or find substitutes:** The main challenge remains enticing Moscow to accept Europe/US rules of the game, to limit the role of the state in energy policy, promote competition and real reciprocity in trade and financial flows.
- **US challenge is possibly broader, more systemic: to find ways both regionally (Venezuela, Mexico) and globally (China, Russia) as well as in individual cases (Iran) ways to substitute win-win for win-lose energy relationships.** This might best unfold in an Obama administration set to reduce dependence on imports and to move to a “post-hydrocarbon” economy, but the vision to do so might be difficult to foster
- **One obstacle will be the temptation to use sticks rather than carrots, to rely in sanctions, uses of energy as an instrument of policy** instead of trying to find ways to overcome the use of oil/gas as instruments of policy.
- **Another problem might be the unintended consequences of lower oil prices in producer countries significantly weakened by adjusting to lower prices,** bearing in mind that Saddam’s taking of Kuwait and the rise of Hugo Chavez had proximate causes in low oil prices. The burden of adjustment of adjustment to sustained lower oil prices in resource rich countries is heavy and requires more than a sympathetic ear

Further supporting lower prices is a major change: Until this year, call on OPEC rose faster than OPEC production capacity

- ◆ As spare capacity fell (shaded area, R-axis) the risk premium in oil prices rose
- ◆ Top band (red) reflects OPEC capacity declines in the beginning of the decade, followed by slow capacity growth after 2003
 - Average 2007 y-o-y OPEC capacity addition only 380k b/d,
 - New Saudi capacity expansion mushrooms in 2008/09
- ◆ Bottom band (beige) reflects rising call on OPEC as demand exceeds non-OPEC supply

OPEC Spare Capacity 2001–2007



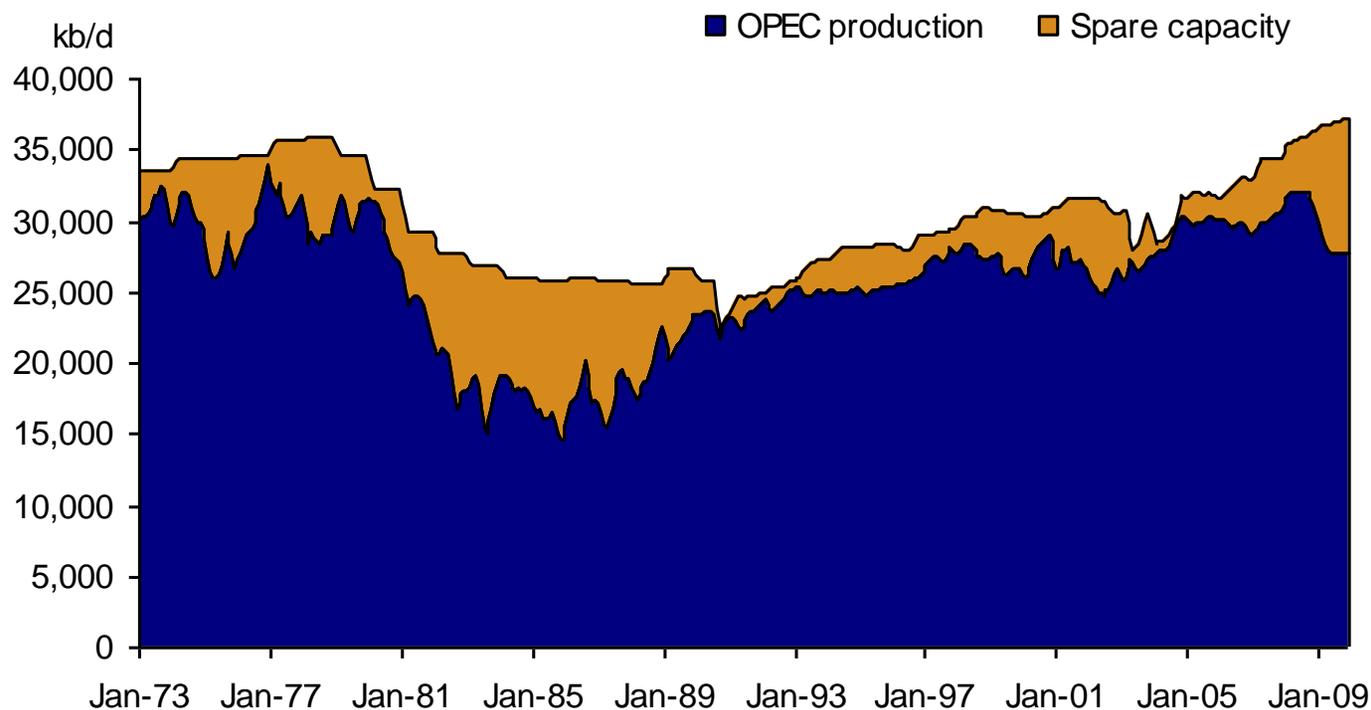
Source: IEA, EIA, Barclays Capital Estimates.

1. Includes OPEC NGL's.

But with demand now in decline and capacity up spare capacity has mushroomed

Saudi Arabia, others have ramped up capacity rapidly and want to maintain it for strategic reasons, setting the stage for an entirely different geopolitics of oil

There are good reasons to believe spare capacity will now grow



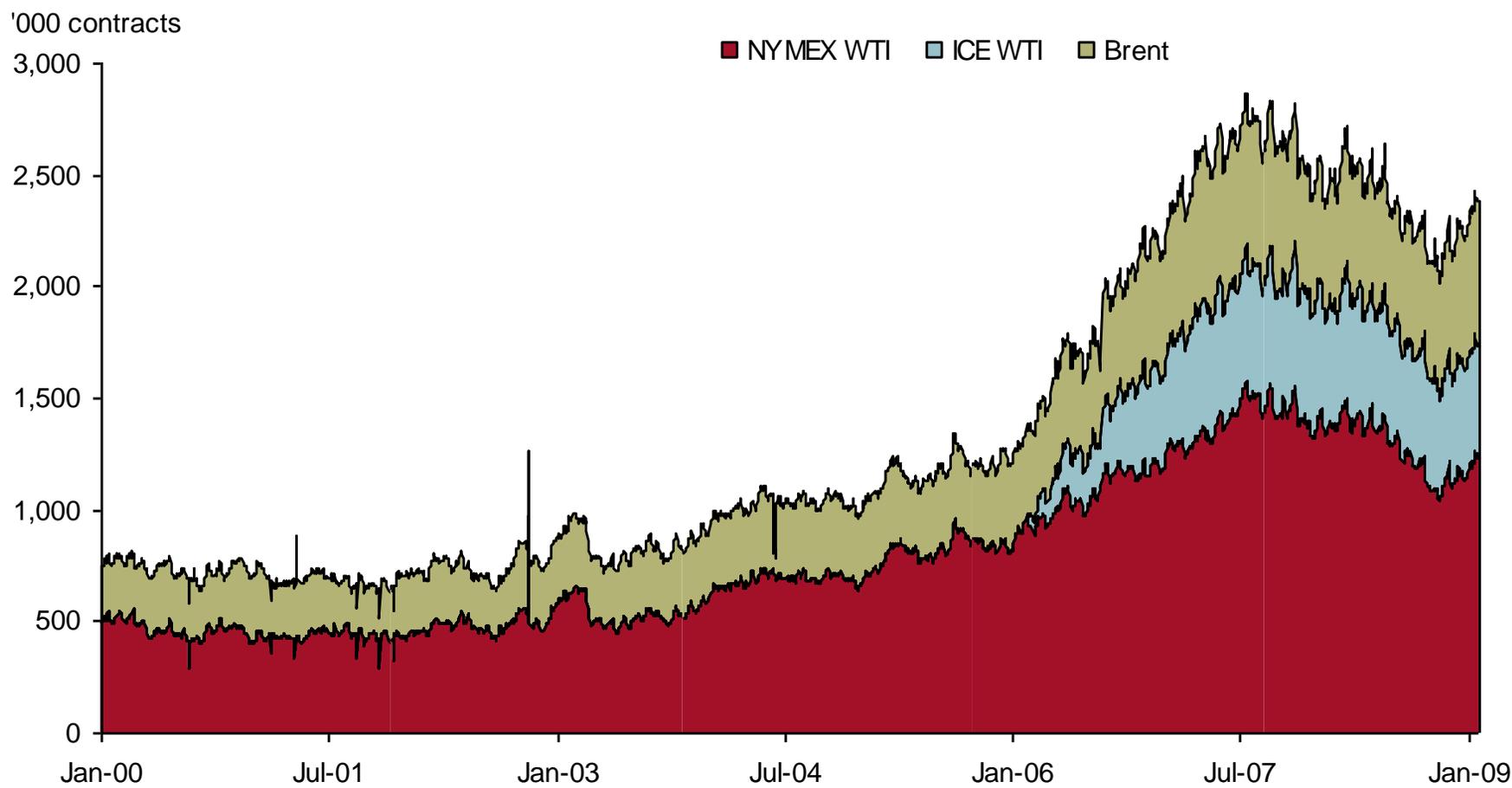
Source: U.S. DOE/EIA; LCMC Estimates.

Recapitulating why the market is likely to remain weak

- Demand is falling and when it resumes it will be at a much lower rate of 1-1.3% per annum rather than earlier 1.5-1.8% per annum (not the conventional wisdom)
- Total non-OPEC supply is likely to start growing again (not the conventional wisdom)
- OPEC (Saudi) spare production capacity is rising and will remain at high levels for political reasons, eliminating the risk premium in prices
- Financial flows, which pushed markets higher and led the decline in prices have now been neutralized
- Saudi Arabia has opted for a lower price situation and has a better ability to put a lid on prices.

Liquidity in crude oil grew from 750 mm bbls in 2000-2003 to 3 billion bbls in 2007, then shrank and is growing again

Aggregate futures open interest in WTI and Brent / WTI, 2000-2009



This is one sign that the growth of financial flows has reversed

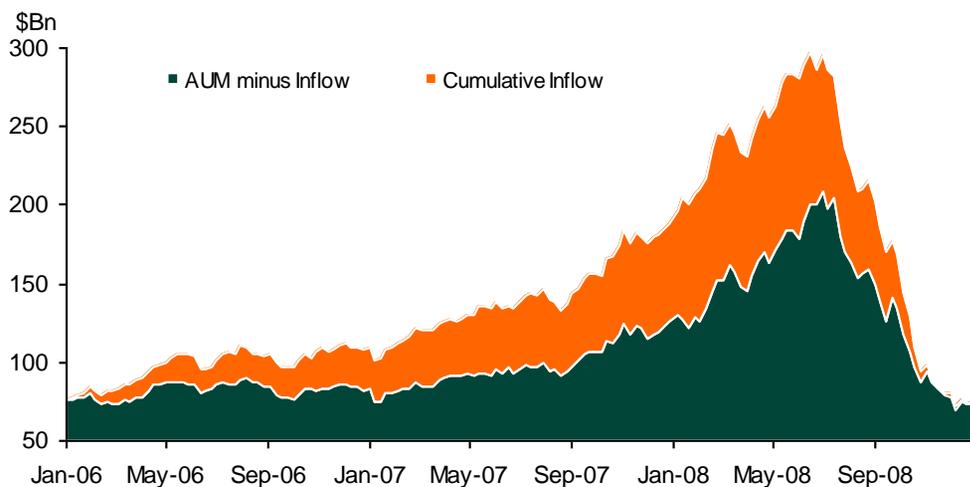
More importantly, 'long only' fund flows have liquidated

The coincidence of a broad commodity price appreciation and large financial index inflows have raise questions about causality

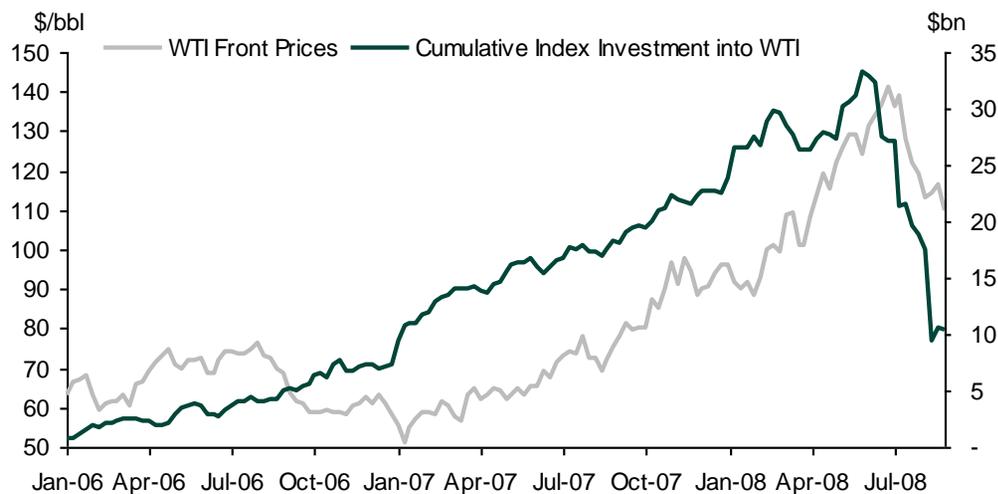
Commodities as an asset class

- ◆ Stellar performance attracted large number of financial investors into commodities
- ◆ Index funds emerged as primary channel for large institutional investors.
 - Indices typically operate via swap agreements between investors/banks, exploiting swap loophole exempting these investments from speculative position limits imposed by CFTC.
- ◆ Estimates of large index flows coincide with dramatic increases and decreases in the price.
- ◆ It is unlikely that we will see long-term investments returning soon. Going forward with credit constraints and limited financial flows, money is likely to play a neutral role on oil prices.

AUM and Cumulative Inflow since 2006



Index Inflow into WTI and WTI prices



Geopolitics points in the same direction

Despite OPEC's cuts, Saudi Arabia is content with lower prices

- The sharp drop in oil prices has pitted Saudi Arabia and core GCC countries against the rest
- OPEC hawks Iran and Venezuela, and their supporter, Russia, have high perceived “break-even” budget prices, ranging from \$80 (Russia) to \$120 (Venezuela), with Iran in between (\$100)
- GCC countries have much lower break evens prices, ranging from <\$20 (Qatar) to \$40 or so (Saudi Arabia) with the others in between
- It's in the GCC's long term economic interest to see lower prices to spur economic growth and petroleum demand
- It's convenient as well to see the “hawkish” countries in a revenue squeeze that could impair their use of oil as an instrument of foreign policy in ways that are inimical to the GCC
- The Saudis have a history of fostering lower oil prices at existential moments (viz. 1985/86, 1997)
- The Saudis seem willing to protect \$40 and to limit price increases to \$75
- One question is whether there will be a serious “re-evaluation” of ties to US in light of recent Israeli attacks on Gaza; overall recent Saudi threats do not seem to be worrisome

Geopolitics: one of the key drivers of oil prices

- Factors driving oil prices
 - Supply/demand fundamentals
 - Financial flows
 - Disruption risks: weather, infrastructure outages, geopolitics
- Up to this year tightening fundamentals eroded spare oil production capacity, leaving the market without a buffer in the event of disruption
 - This made oil markets much more vulnerable to price shocks
 - What does it mean for key world players if oil prices spike?
- Which countries mattered to the geopolitics of oil?
 - Importers and economic heavyweights: US, Europe, China, Japan
 - Exporters: Saudi Arabia, OPEC producers, FSU, West Africa
- In 2008, perception is that market requires a lower geopolitical risk premium, maybe a negative risk premium
- What's oil's new geopolitical gloss?

Oil was No. 1 Political Risk in 2008

- Periodically during this year, and indeed for the past few years, markets placed a major emphasis on geopolitical risk; at start of 2008, a \$150 call option with expiry in December cost \$0.80. By May the cost had risen to \$8
- The high risk is associated with lack of spare production capacity in Saudi Arabia – how long will this last? Will radically lower demand growth going forward and new Saudi oil fields restore spare capacity?
- There have been clear reminders that oil and politics matter. Notably:
 - 2007- Russia/Belarus: 1.5m b/d oil transit to W. Europe blocked – Russia uses oil for foreign policy purposes
 - 2008 – Russia/Georgia brings home the effort to forge new rules
 - 2008 – Russia/OPEC – what’s going on for what ends?
 - Nigeria: 700+k b/d offline, with lots of disruptions
 - Terrorism on oil facilities in other countries, focus on Saudi Arabia
 - Iraq and Iran – over 4m b/d of exports; Iran borders 17m b/d Strait of Hormuz transport bottleneck; Iran can disrupt Iraqi exports out of south

Middle East has been No. 2 Political Risk in recent years

The Middle East region as a whole remains cause for caution

- What’s happening in Syria and its tie to other issues?
- Iran nuclear ambitions
 - Israeli uneasiness, possible strike in response
 - Sunni Arab uneasiness, possible nuclear proliferation in response
- Saudi Arabia’s recent assertiveness, worries about Iran’s rise and Iraq’s demise
- Iran’s support of Shiite militias killing Sunnis in Iraq
- Even with the US “troop surge” strategy, what’s to prevent Iraqi disintegration after US withdrawal
- Lebanon still hangs under pressure from *Hizbollah*
- Stalled Israeli/Palestinian negotiations

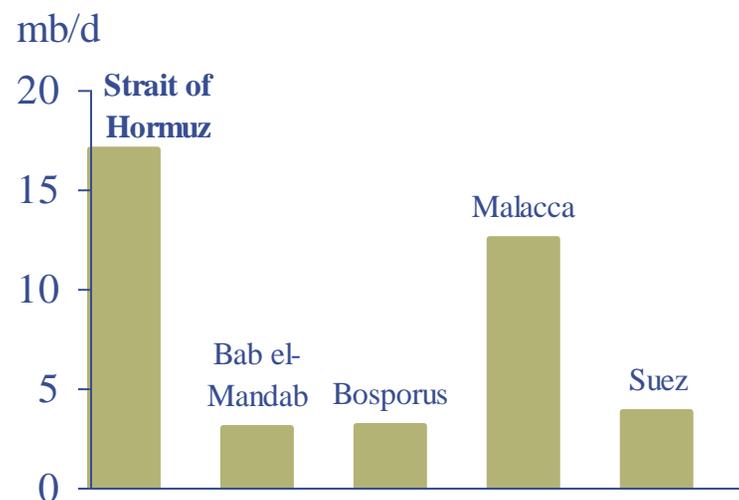
Iran is a lingering issue

Iran's nuclear ambitions could still lead to use of force

- For both the US and Israel, it may be even more imperative to use military force: what are the oil consequences?
- Can Iran effectively block the 17m b/d Strait of Hormuz, through which 90% of Persian Gulf Exports flow?
- Can gasoline imports to Iran be impeded?
- Can damage be done to Iran's 4 export terminals, especially the huge Kharg Island to deprive Iran of exports?
- How vulnerable is Iran's shipping fleet (the largest in OPEC)?



Strait of Hormuz is a key chokepoint



Geopolitical risks: Iran and Iraq

Iran could respond to US pressure by hitting Iraqi oil production

- Iran currently produces about 3.8m b/d, exports about 2.4m b/d, and imports about 230k b/d of gasoline
- Much talk has focused on Iran’s potential use of its “oil weapon,” reducing output significantly to raise prices and “punish” the world
 - Unlikely because:
 - US ally Saudi Arabia alone could just about cover Iranian production
 - US, IEA could release strategic stocks (1.5-billion barrels), a credible instrument, since they released stocks after hurricanes in 2005
- Iran likely reluctant to risk earning nothing from oil exports and would instead use its influence to cut off Iraq exports from Basra (1.3 to 1.6m b/d)
 - This potential is credible since Iran could plausibly deny it
 - Such a cut-off would tighten markets, raise prices and raise Iran’s income
 - While Saudi Arabia and others might react by raising output, they would likely do so to offset and take advantage of already much higher prices, which would be further bolstered by speculators
- British withdrawal is in any event increase intra-Shia strife in Southern Iraq

Upside geopolitical risks were regaining focus

2007-08 price actions suggest speculators believed geopolitical risks had risen

- Iran continued to fuel speculative investors until July
- In 2007, focus was on Israel's attack on Syrian facilities, spurred by rumors of Iranian involvement in chemical weapons munitions and N. Korean involvement—with an Iranian link—in delivery of “nuclear materials”
- Major question in the market was whether silence over Israeli attack on Syria is precursor to a larger attack
- The other issue that led to surge in oil prices late in 2007 was Federal Reserve decision to lower discount rate by 50 bps. This led to wide US-Euro spreads and speculation that Saudi refusal to follow Fed was precursor to Saudi abandoning dollar reserves and dollar pricing (prices rose from \$68 to \$84)
- Saudi Arabian position poses additional geopolitical risks, with high stakes in Iraq and financing of Sunni groups
- ***Geopolitics matter on the upside when global spare production capacity has declined – what happens when it grows?***

What's the current state of play?

Does Saudi Arabia want radically lower prices? How low? Can it stage-manage a price decline?

- Beginning September 2007, Saudis were rebuffed on having OPEC add 1 m b/d to the oil market; settled for 550k b/d
- Beginning this Spring, Saudi rhetoric changed from old position: high oil prices resulted from lack of refinery capacity investments, speculation and, in any event are not impacting global growth, inflation or demand
- Beginning in Q2, Saudi rhetoric shifted to concern about global growth and demand
- All along there was an undercurrent of the need to build spare capacity to deal with Iran, Iraq, given likelihood of US withdrawal, question of what if diplomacy doesn't curb Iranian nuclear ambitions
- Now Russia is trying to “manage” OPEC
- Is now the time for Saudi Arabia to repeat the actions of the 1980s and 1990s?
- Greater resource nationalism by producers and competition over reserves by consumers
- Global bad actors even further incentivised to cause oil disruptions

Ultimately, Four Factors Explain Price Changes

- Long-term structures
 - Adequacy of capital asset base / spare capacity: *benign for next two-three years*
- Short-term market forces
 - Supply, demand, inventory, weather and level of economic growth: *bearish for next two-three years*
- Politics and geopolitics
 - OPEC's ability to defend a price floor, risk of a disruption
 - Saudi Arabia's ability to protect its preferred ceiling: *bearish for next two to three years*
- Flow of funds into/out of commodity investments
 - What happens when deleveraging is over?
 - Will fund flows/higher corporate risk management, with lower open interest have a more pronounced impact?
 - With re-emergence of exchange traded oil, products, natural gas, will transparency create more/less volatility?

•Certification

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