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Our Fundamentally Bullish View On Oil

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Analyst certification and required disclosures begin on page 35

Energy Forum

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Outline of Our Thesis

- Fundamentals have helped drive oil prices in what is now a multi-year rally. Average price hit $57/bbl WTI last year. We raised our forecast to $68.40 in 2006; $69 next year; and $62 in 2008. Our normalized price sits at $43.
- Fundamental themes are strengthening. Oil demand growth accelerated in Q2, more importantly oil supply gains have been far and few between for a year now
- Look further out: We find that oil stays scarcer than commonly realized. Its high price is needed to curb demand. More likely than not, change comes slow. Conventional Wisdom on demand projections is too optimistic, simply because supply cannot reach as high.
- Growing scarcity of oil is key of this decade's oil rally. Commodity markets trade this notion equities still don't, witness price and open interest of long dated oil futures.

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Outline of This Slide Pack

Mid-2006 update

- Demand: drivers, shifts, numbers & indicators of looming change
- Supply: Non-response of non-Opec. And Opec actively supports high prices. Who are winners/losers. Politics and rapidly rising tension in the Mideast
- Shorter term outlook: Inventories & evolving pressures from fundamentals, bullish risks surround Q3, a little more weary of Q4/Q1
- Upside Price Risk from supply factors; Downside risks economy, weather
- Leading indicator of choice is long-term futures, their price and open interest

Longer Term: What Changes

- Demand: Political interference/action; economics; macro (population & resource scarcity, e.g. China & India); Technology
- Supply: Technology; new provinces; politics
- Alternatives: bio-fuels; nuclear; wind/solar/wave etc.

Opportunity (?)

- Some remain hugely skeptical of "oil bubble"

UBS Global Oil Supply/Demand Balance

Supply "disappointment" are still the principal ingredients of a relatively tight supply/demand balance this year. In the back-ground, however, oil demand growth accelerated in Q2 (contrary to conventional wisdom) and second half supply gains will have to match further demand growth, and this quarter especially should look relatively tight. Stock-building should prove modest and supply risks remain many.

MMBbld	3Q05	4Q05	2005	1Q06	2Q06E	3Q06E	4Q06E	2006E	2007E	2008E
TOTAL DEMAND	**83.3**	**84.0**	**83.6**	**85.2**	**83.8**	**85.0**	**86.1**	**85.0**	**86.8**	**88.5**
% YoY Growth	1.5%	0.0%	**1.3%**	0.6%	1.6%	2.0%	2.5%	**1.7%**	**2.0%**	**2.0%**
of which:										
N America YoY %	0.8%	-0.9%	**0.8%**	-1.6%	0.0%	0.8%	2.5%	0.4%	1.3%	0.9%
China YoY %	4.9%	1.8%	**2.9%**	5.3%	13.4%	8.6%	6.7%	8.4%	6.0%	5.5%
Mideast YoY %	5.9%	5.9%	**6.1%**	5.8%	5.7%	5.6%	5.9%	5.7%	6.5%	6.5%
TOTAL SUPPLY	**83.9**	**83.9**	**84.0**	**84.4**	**84.6**	**85.8**	**86.0**	**85.2**	**87.4**	**88.9**
YoY Growth	+0.6	-0.3	+0.9	+0.6	+0.2	+1.9	+2.1	+1.2	+2.2	+1.5
YoY Non Opec Chg.	-0.1	-0.2	+0.1	-0.0	+0.0	+1.5	+1.0	+0.6	+1.3	+0.5
BALANCE	**+0.6**	**-0.2**	**+0.3**	**-0.8**	**+0.9**	**+0.8**	**-0.1**	**+0.2**	**+0.6**	**+0.4**
OECD Stock Cover	53.0	51.6	**51.6**	53.6	53.7	53.0	52.5	**52.5**	**52.6**	**52.0**

Source: IEA, DoE, OPEC; national energy statistics agencies including OMV, AFP, UP, ANP, PTT, CERI; national oil companies, including PEMEX, international oil companies including BP and its Statistical Review of World Energy; Reuters, Bloomberg; and UBS estimates and forecasts.

Demand, Growth Resumes …

- The US economy looks headed for a soft landing. Oil demand was flat in Q2 after a roundly negative Q1. The US is a key-stone in our view of demand. Question-marks on imbalances linger.
- Another key to growth is China. All indicators point to a rebound. Lack of stock building implies further bullish impact on markets.
- Thirdly we're under-estimating Mideast.
- Robust European economy; Latin America; and Japan could add upside?
- Glaring risk, however, is a regional Mideast war

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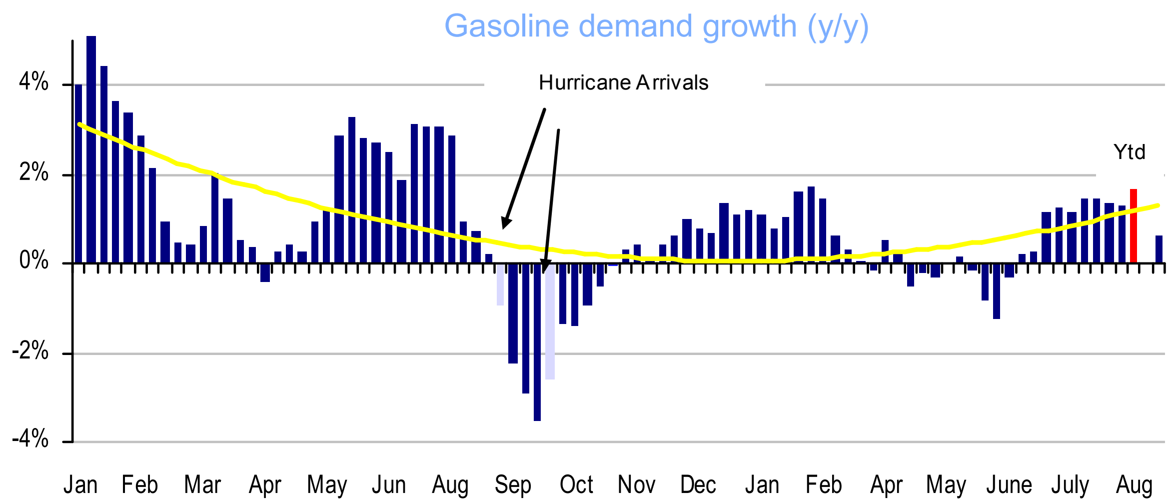
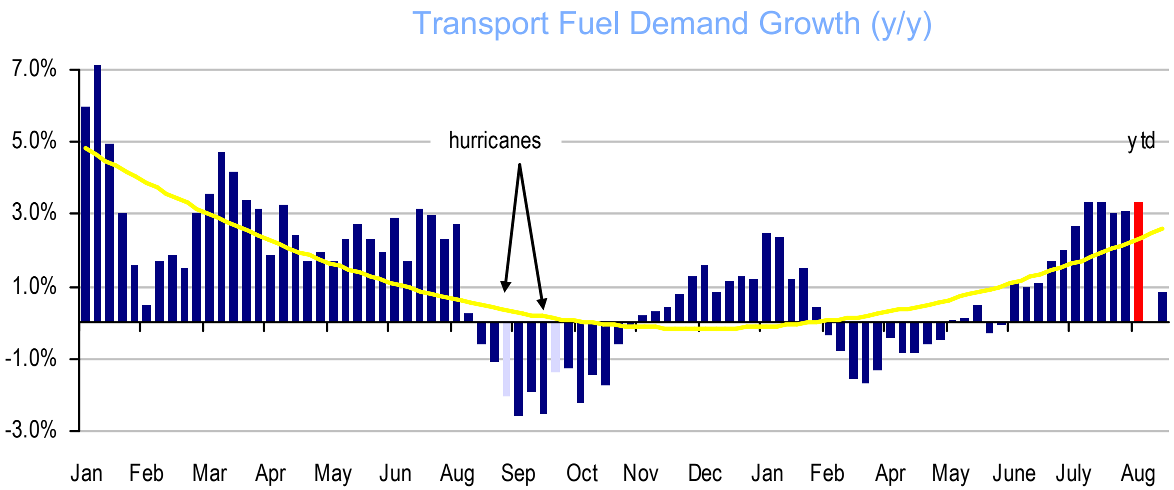
Example: US Gasoline & Other Products”

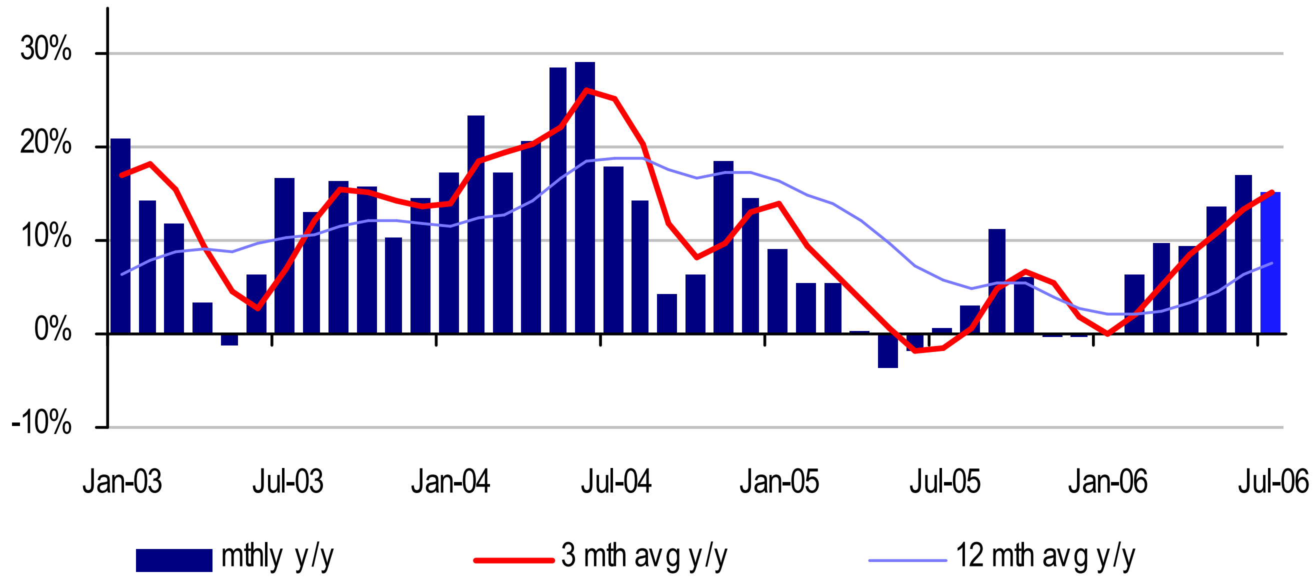




Source: EIA, UBS

China’s Apparent-Demand Growth Bounces

Oil demand is: refiner throughput + other crude use + processing gain + net product imports



Source: China’s Bureau of Statistics and General Administration of Customs, Reuters, UBS

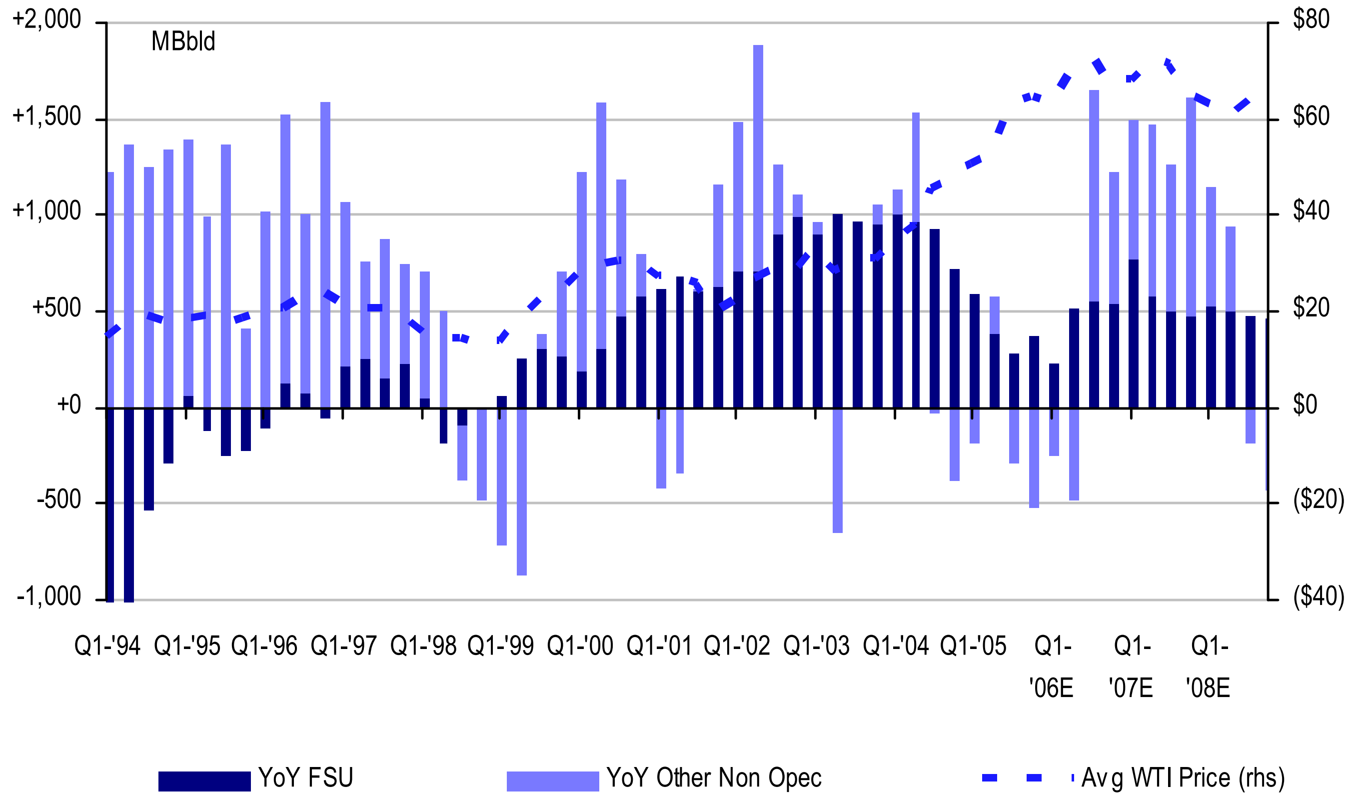
Demand Growth in Key Economies

	2005 Oil Demand in MBblsd	2005	Q2-'06 y/y % Growth	Q3-'06E y/y % Growth	2006E y/y % Growth	2007E	2008E	10 yr avg
Global	**82,525**	**1.3%**	**1.4%**	**2.0%**	**1.6%**	**2.0%**	**2.0%**	**1.6%**
N America	**25,373**	**+0.8**	**-0.6**	**+0.8**	**+0.3**	**+1.3**	**+0.9**	**+1.7**
Canada	2,302	-1.6	-3.4	+3.1	-1.3	+1.6	+1.2	+2.3
Mexico	1,996	+4.1	-3.6	+5.0	+1.6	+2.1	+2.1	+1.4
USA	20,731	+0.7	-0.0	+0.1	+0.3	+1.2	+0.7	+1.7
S America	**4,920**	**+1.3**	**+1.9**	**+2.2**	**+1.8**	**+3.1**	**+3.5**	**+1.6**
Brazil	2,153	+0.0	+1.3	+2.0	+1.4	+3.0	+4.0	+2.0
Europe	**16,188**	**+0.0**	**-0.4**	**-0.5**	**-0.1**	**-0.5**	**-0.5**	**+0.6**
France	2,007	-0.4	-1.7	+0.3	-0.3	+0.4	+0.5	+0.4
Germany	2,665	-1.8	+0.2	-4.7	-1.6	-2.0	-2.4	-0.9
Italy	1,794	-3.5	-3.2	-0.2	+0.4	+0.0	+0.2	-1.1
UK	1,800	+0.3	+1.1	+2.2	+1.1	-3.0	-2.3	-0.0
Other Europe	7,922	+1.5	-0.1	-0.0	+0.1	+0.1	+0.2	+1.8
FSU	**3,770**	**+1.3**	**+1.4**	**+6.8**	**+3.2**	**+3.0**	**+3.5**	**-3.9**
Mideast	**5,831**	**+6.1**	**+5.7**	**+5.6**	**+5.7**	**+6.5**	**+6.5**	**+3.5**
Africa	**2,802**	**+3.1**	**+2.1**	**+1.9**	**+2.0**	**+5.0**	**+5.1**	**+2.9**
Asia-Pac	**23,644**	**+1.5**	**+3.4**	**+3.3**	**+2.7**	**+2.6**	**+2.5**	**+3.0**
China	6,506	+2.9	+13.4	+8.3	+8.4	+6.0	+5.5	+7.8
India	2,560	+0.4	+4.4	+2.0	+2.4	+2.0	+2.0	+4.4
Japan	5,295	+1.1	-3.6	+0.9	-0.5	-0.5	-0.4	-0.5
South Korea	2,155	+1.0	-2.3	+2.7	-0.3	-1.3	-2.2	+1.0
OECD	49,347	+0.6	-0.9	+0.5	+0.1	+0.4	+0.2	+1.0
Non-OECD	33,179	+2.5	+4.7	+4.2	+3.9	+4.4	+4.5	+2.6

Source: IEA, DoE, OPEC; national energy statistics agencies including OMV, AFP, UP, ANP, PTT, CERI; national oil companies, including PEMEX, international oil companies including BP and its Statistical Review of World Energy; Reuters, Bloomberg; and UBS estimates and forecasts.

Supply Side: No Great Response To Price

Outside the Former Soviet Union, non-Opec YoY growth averaged -100kbd in the 3-years ended Q4-2005, it averaged -390kbd in the last four quarters…



Source: DoE IEA, DoE, OPEC; national oil companies, including PEMEX, international oil companies including BP and its Statistical Review of World Energy; Reuters; and UBS estimates and forecasts.

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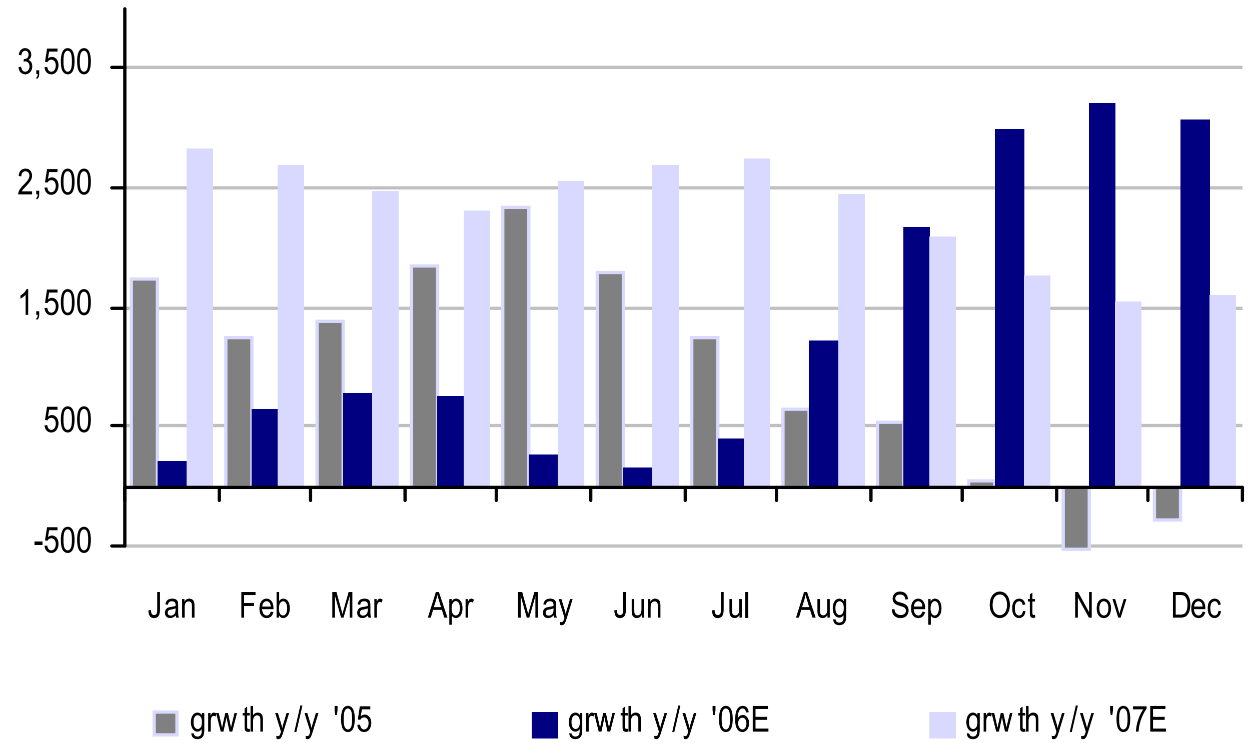
Supply Growth in H2 of This Year:

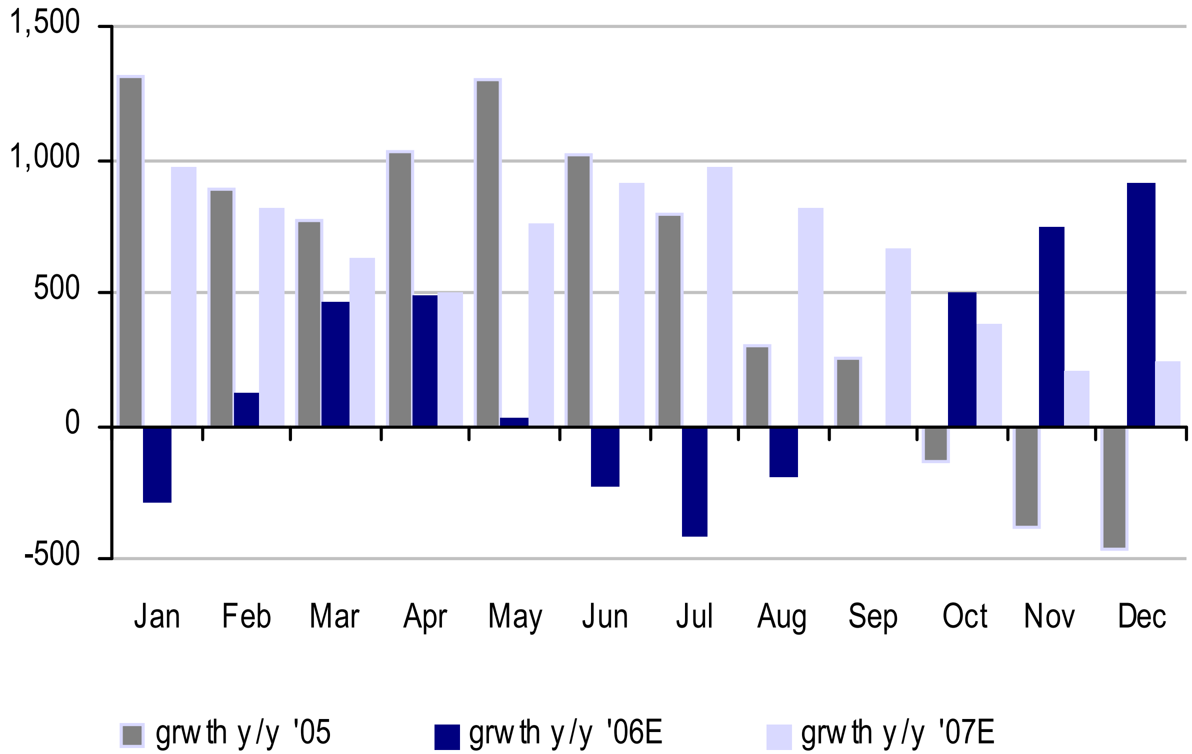
Global y/y Oil Supply Growth lags through May, picks up for real only in August, unless … (y/y change 2005, ’06E, ’07E)



Source: IEA, US DoE, OPEC; national oil companies, including PEMEX, international oil companies including BP and its Statistical Review of World Energy; Reuters; and UBS estimates and forecasts.

Under the Radar-Screen, Opec's Key Role

Violence in Iraq & Nigeria plays a part, but so do politics in Venezuela, and separately, Saudi pragmatism (y/y change 2005, '06E, '07E)



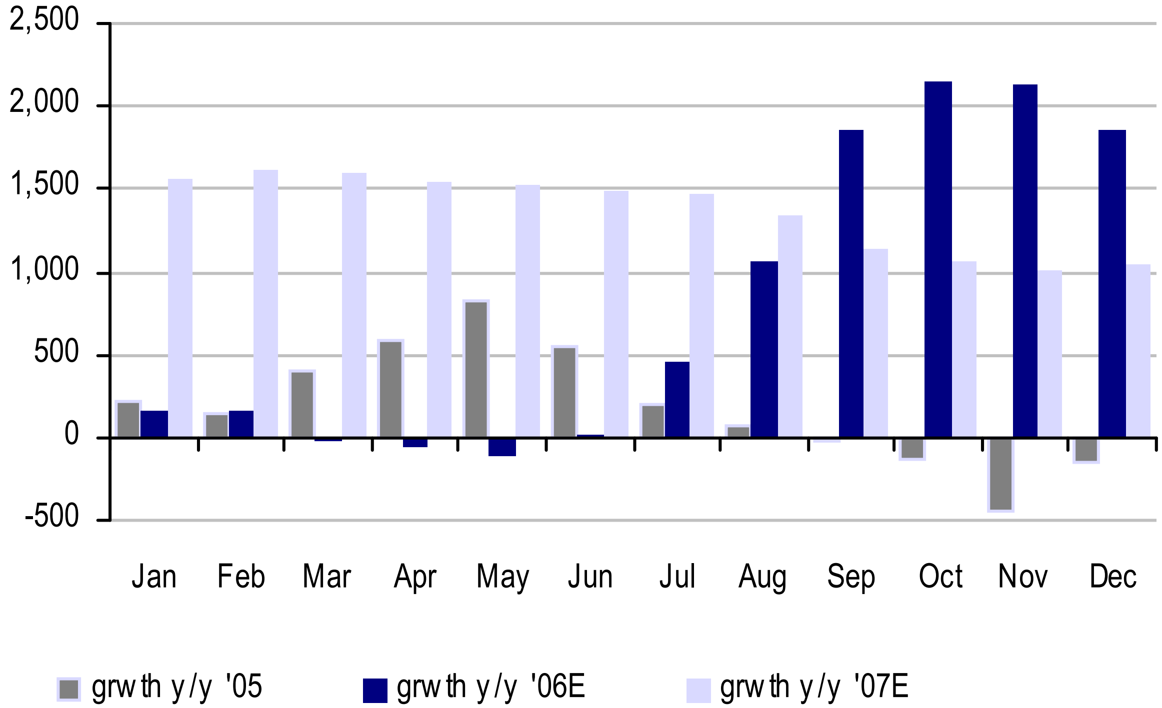
Source: IEA, US DoE, OPEC; national oil companies, including PEMEX, international oil companies including BP and its Statistical Review of World Energy; Reuters; and UBS estimates and forecasts.

Opec and Its Latest Business Statement

- Much simpler way to get at a floor-prize is listening to Saudi Arabia’s oil minister, Ali al-Naimi: “Opec is a business organization, and a political organization no more… All every member wants is more money.”
- To clarify, he later mentioned that $50 to $60 per barrel is fair. A point on which Hugo Chavez of Venezuela remarked that he would defend $55 for Venezuela’s export basket price
- That was half a year ago
- Asked, in Caracas in June, why Saudi Arabia cut oil supplies in April instead of lowering prices to entice customers to pick up their barrels, Naimi answered “We will not leave money on the table for others.”
- Last week, Opec’s President suggested $70/bbl was “satisfactory”

Much of the Lag Involves Non-Opec:

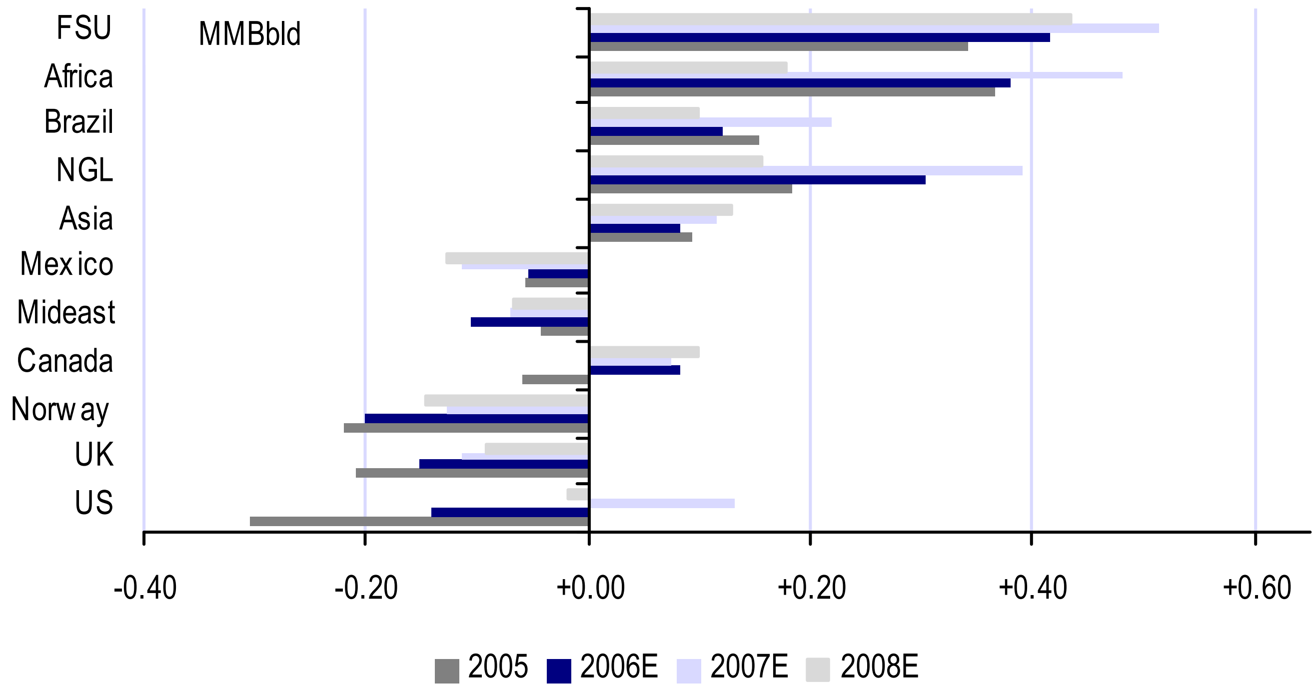
Non-Opec Should pick up the growth pace this quarter (y/y change 2005, ’06E, ’07E)



Source: IEA, US DoE, OPEC; national oil companies, including PEMEX, international oil companies including BP and its Statistical Review of World Energy; Reuters; and UBS estimates and forecasts.

Non-Opec Winners And Laggards

Outlook for Non-Opec growth: Less and from fewer sources



Source: IEA, DoE, OPEC; national oil companies, including PEMEX, international oil companies including BP and its Statistical Review of World Energy; Reuters; and UBS estimates and forecasts.

Global Supply Growth In Detail

Non-Opec supply cuts in the first half of ’06, compounded by Opec cuts in Q2. YoY growth lags behind until H2 of this year

Y-o-Y volume growth by region (including Opec members, non-crude and processing gains)

(MMBbld)	Q4-'05	Q1-'06	Q2-'06	Q3-'06E	Q4-'06E	05E/'04	Q1-'06	Q2-'06	Q3-'06E
North America	-810	-317	-299	576	126	-476	24	-299	576
of which US	-950	-555	-347	415	281	-379	-48	-347	415
South America	256	12	-92	59	103	125	21	-92	59
Europe	-514	-482	-588	-108	-125	-404	-324	-588	-108
Africa	564	392	313	471	603	632	446	313	471
Mid East	-196	850	366	231	604	524	511	366	231
FSU	373	228	519	555	543	408	462	519	555
Asia/Pacific	39	-49	-9	93	268	104	77	-9	93
Total	**-287**	**634**	**210**	**1,876**	**2,122**	**912**	**1,217**	**210**	**1,876**
Opec Crude	-457	444	-56	-31	598	394	238	-56	-31
Opec O.Oil	315	209	231	261	306	312	252	231	261
Non-Opec (Inc.Proc.Gns	-145	-19	35	1,647	1,218	206	726	35	1,647

Source: IEA, DoE, OPEC; national oil companies, including PEMEX, international oil companies including BP and its Statistical Review of World Energy; Reuters; and UBS estimates and forecasts.

Supply Side Uncertainty…

- 2006, a supply side year

  (the way 2004 was about demand):

1. Russia, slower growth and greater meddling from the center. Several drivers of growth are stagnating or declining
2. Nigeria's near constant chaos takes out 600+kbd … and counting
3. Venezuela, Bolivia & Ecuador: ?
4. Kuwait (lower reserves); Saudi Arabia (attempt at Ab Quaiq); Iran's (vs Israel through Hezbollah, and its strategic goals)
5. Gulf of Mexico -150kbd and other set-backs

- Add 'systemic' service sector constraints rippling through the upstream delaying projects etc.

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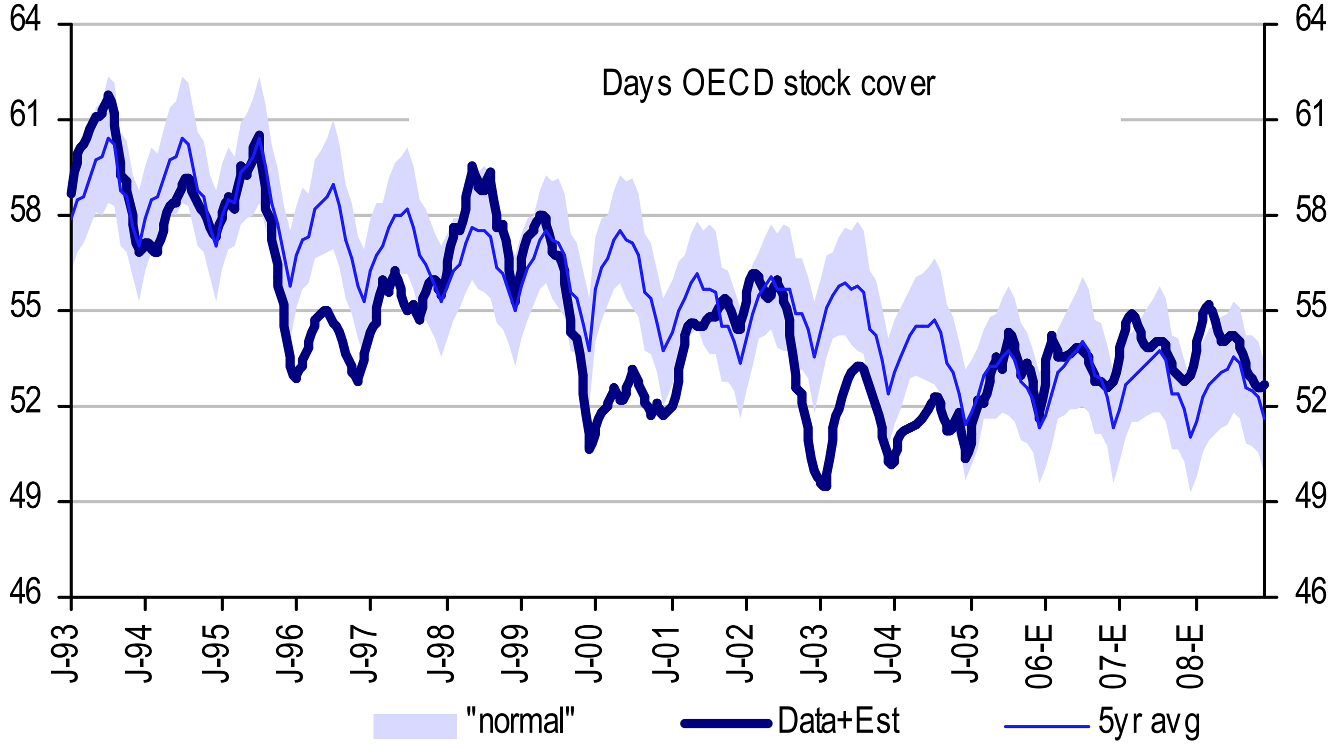
Bottom-Line: Inventories Remain Low

Against a sliding 5-yr range, stocks stay tight -- even as the range of what is “normal” inventory cover trends lower. In fact, stocks are especially tight when discounting crude oil built up in the US last year.



Source: IEA, UBS estimates

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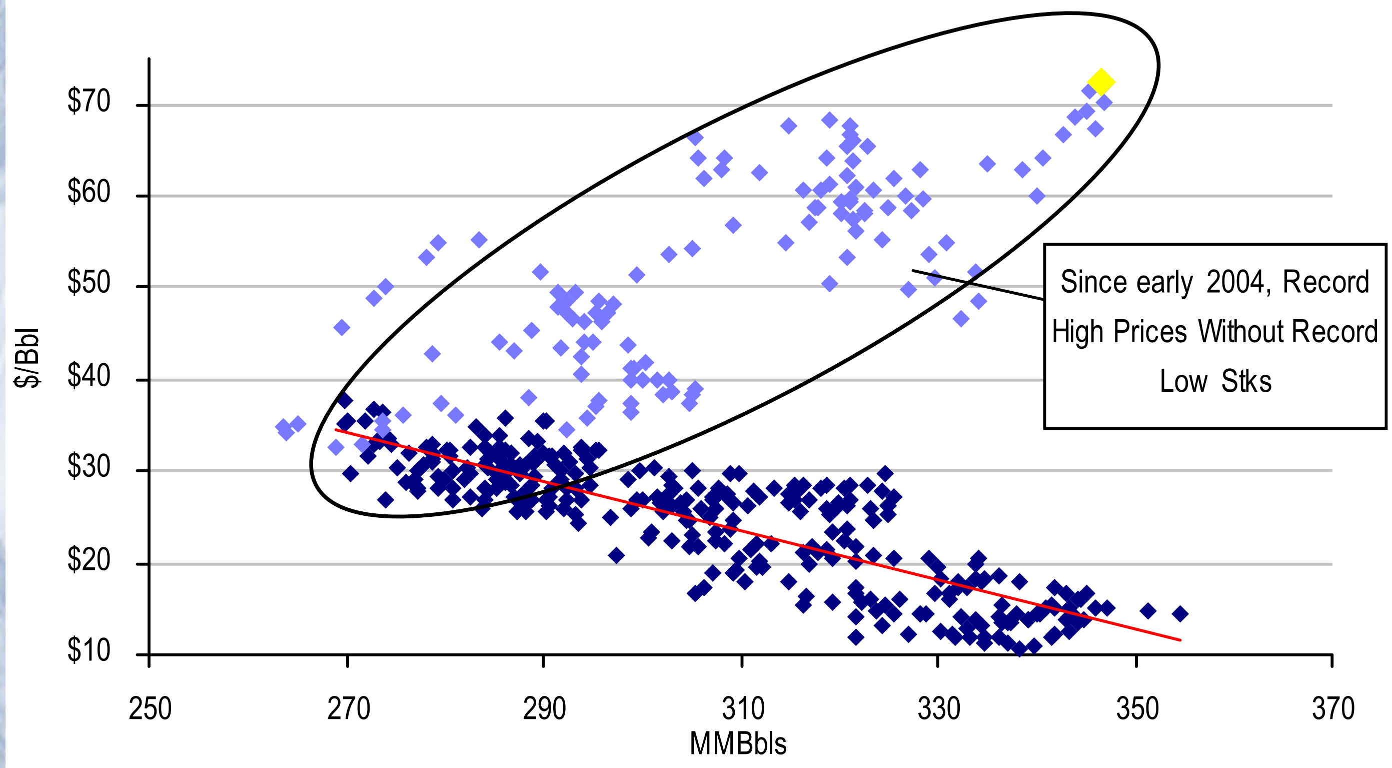
Old Relationship of Stocks & Price is Gone

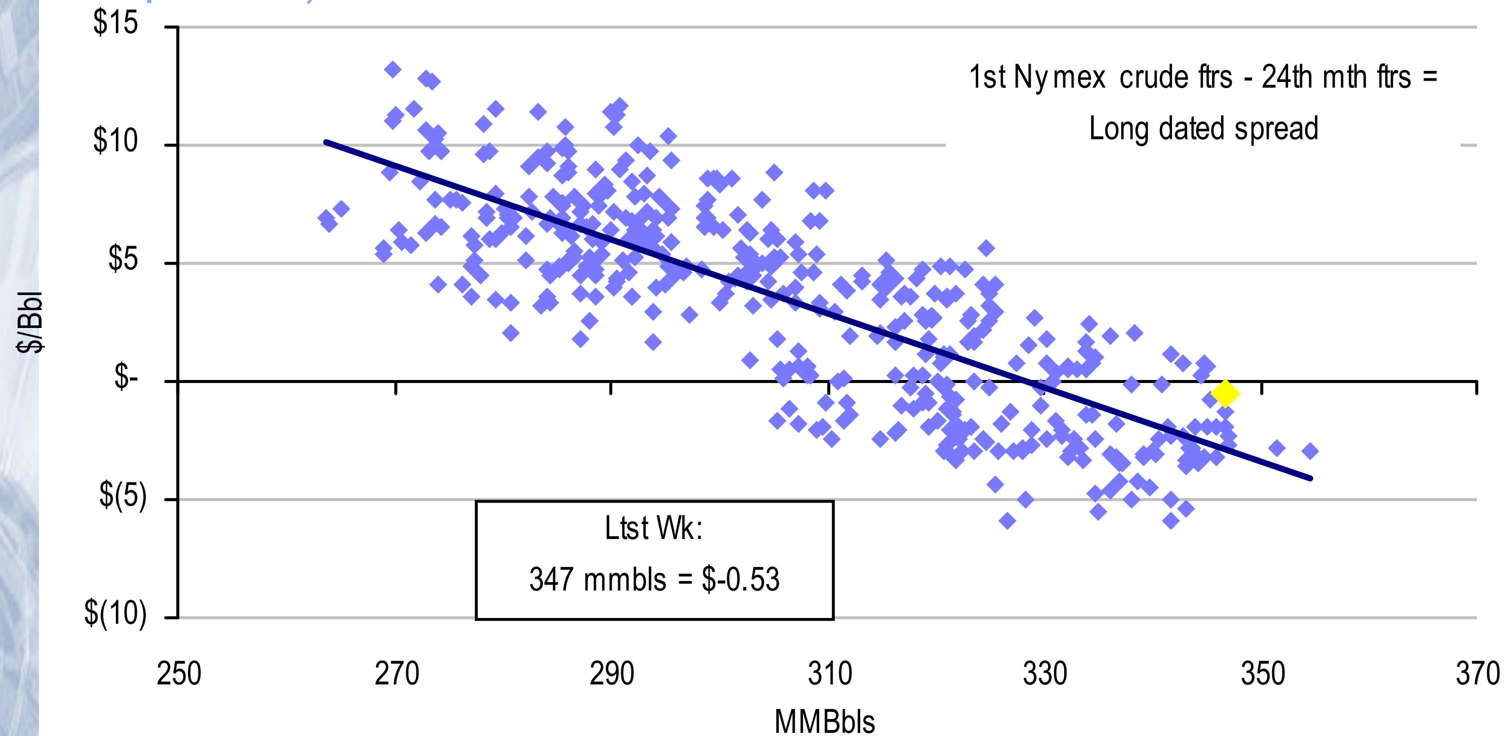
Old stocks-to-price relationship is gone: Prompt WTI futures versus weekly US crude oil stocks 1/1998-present



Source: Nymex, DoE, UBS

Better Way to Relate Prices and Stocks

Better way to relate prices and stocks is to look at the shape of the curve, the spread between long-dated and prompt futures contracts (weekly Nymex CL1-Cl24 close, 1998 to the present)

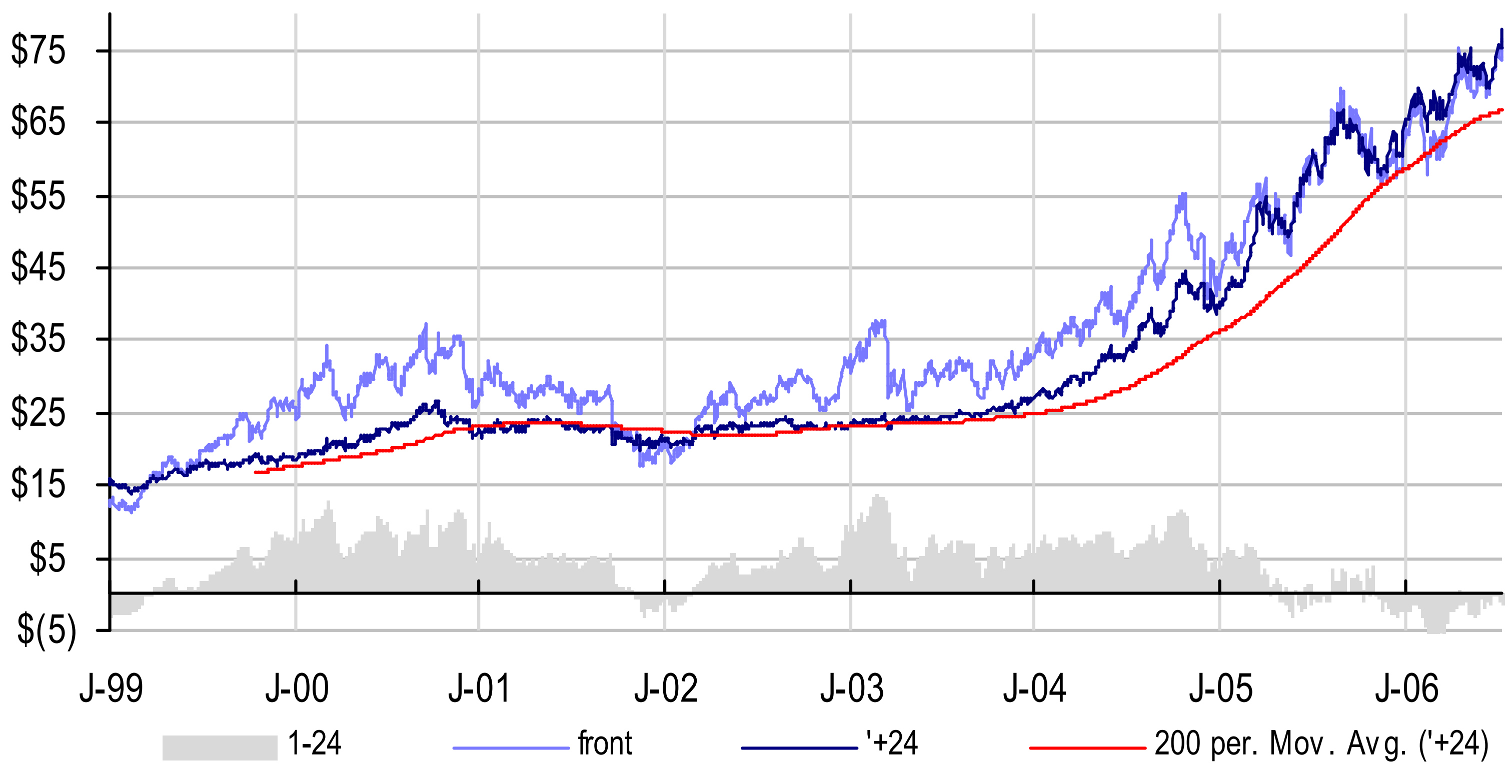


Source: Nymex, DoE, UBS

Pricing Focus Shifted Into The Future

Daily oil futures settlements prices 01/1/99-06/12/06

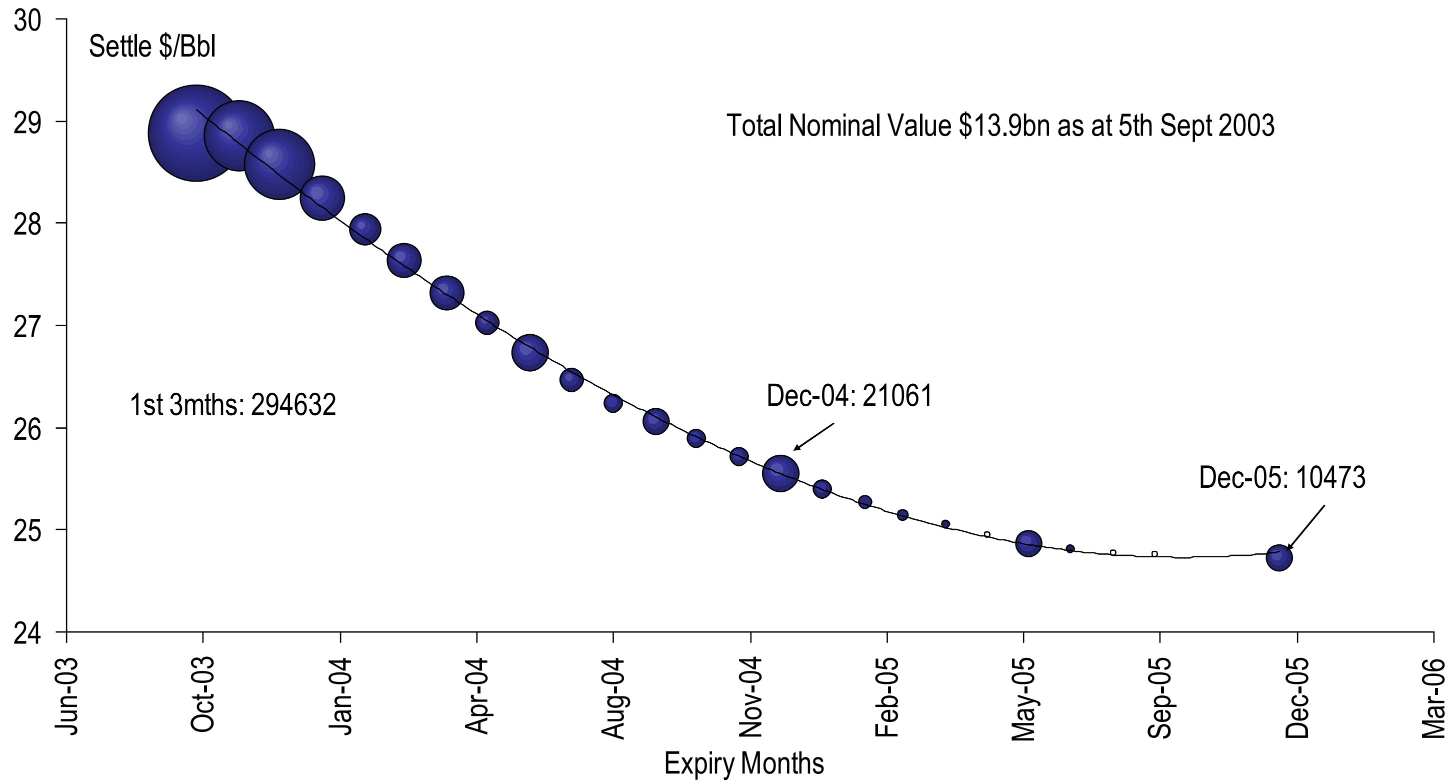
Generic Nymex Crude Oil Futures Contracts #1 and #24 (two years forward)



Source: Nymex

How Does All This Relate To Prices

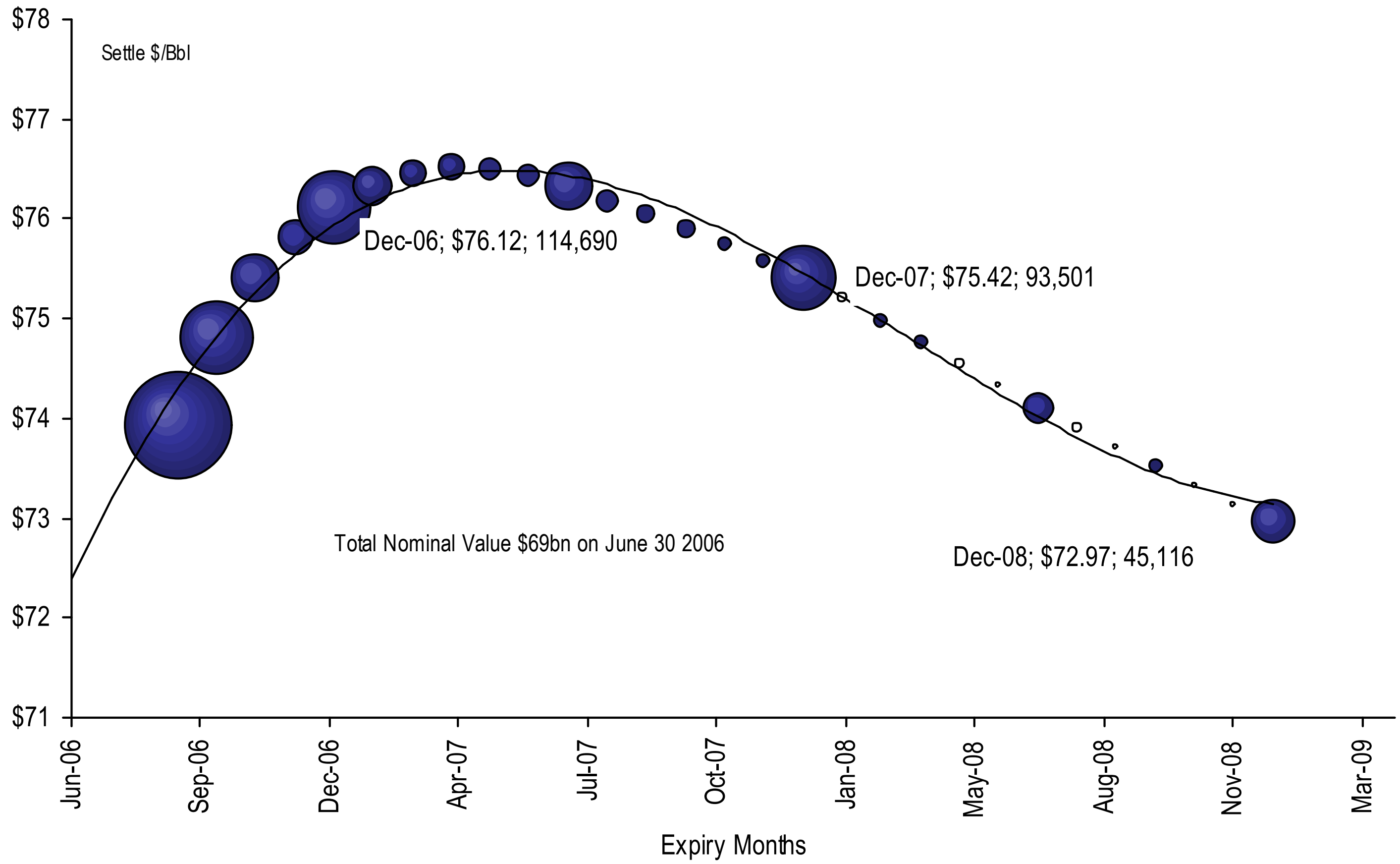
The way things were on Nymex – mid 2003 a rather boring crude oil contract strip:



Source: Nymex

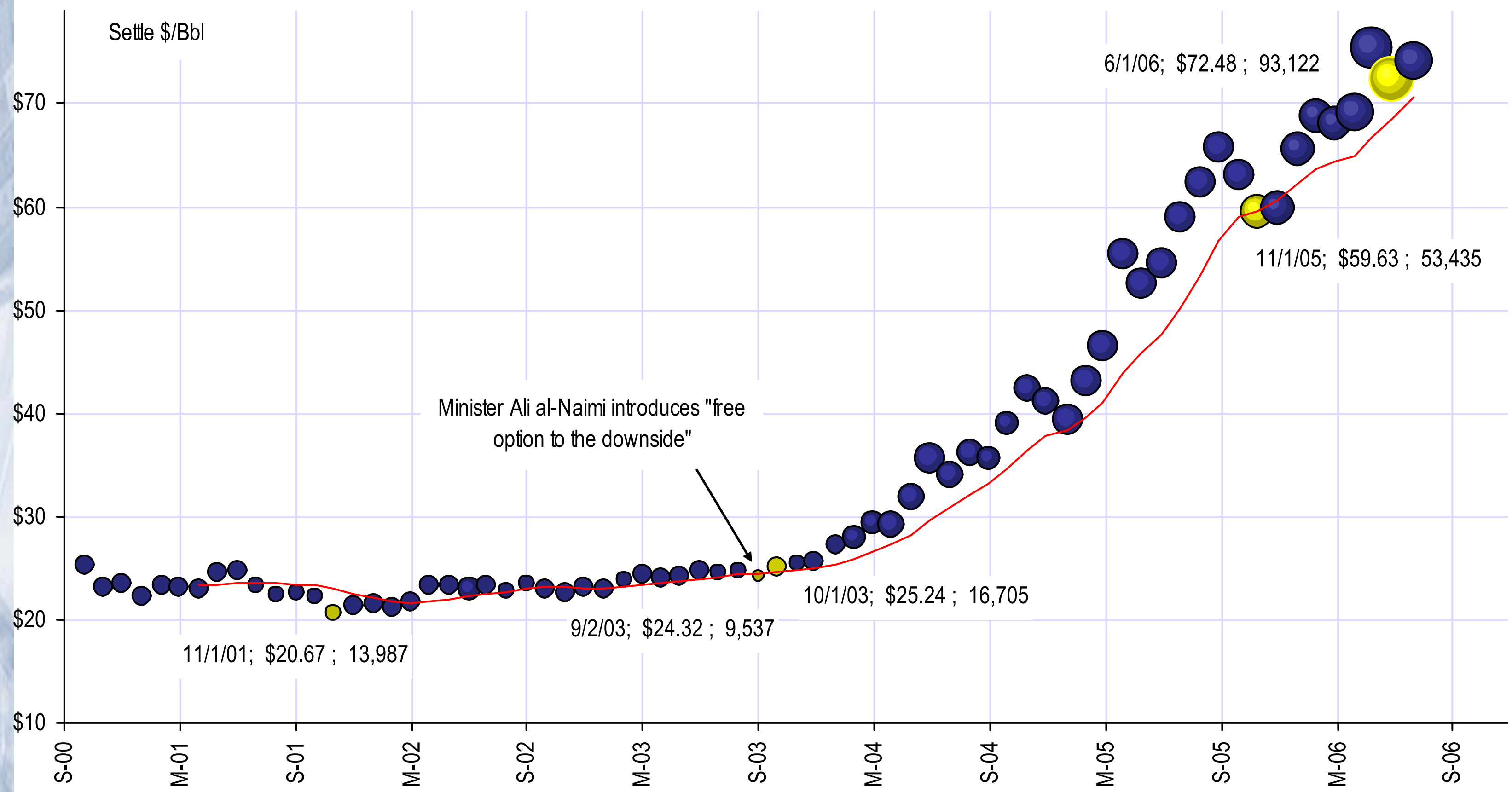
And Still More Keeps Coming In …

When this curve flattens, where goes the prompt???



Source: Nymex

The Far Side of Futures Is Gaining Weight



Settlement + open interest of approximate 2 year out Dec WTI crude futures contract (Sep'00 to present), and its 200-day moving average

Source: Nymex, UBS

Near Term Risk: Bias to the Upside

- In the second half of the year, particularly in Q3, global refiner crude oil demand continues to rise. That more or less seasonal increase in crude oil demand should put the global supply chain to the test.
- In fact, projections of H2 production growth only go to balance out this refiner demand surge. By one count, the trough-to-peak rise in global refiner demand is +4 million b/d from mid April to early July.
- Not only, therefore, should crude oil inventories shrink , but once some of those surpluses are worked off oil markets will be even more jittery and responsive to supply threats (at the same time of course Mideast conflicts may remain tense, the Atlantic Hurricane Season will hit its peak, and supply risks from Iraq, Nigeria and other West African or Mideast producers will not have been mitigated.)
- A significant downside risk is a protracted, severe economic slowdown

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Further Out, Downside Price Risk Limited

- So far this decade oil markets have shaken up key tenets of the conventional wisdom on oil prices -- e.g.: little demand destruction, no supply bounce, no price crash.
- We are not peddling a new “paradigm”. We do find, however, that the odds are stacked overwhelmingly toward higher than “normal” oil prices going forward
- Growing scarcity of oil spells opportunities for oil sector segments (e.g. mid-stream & E&P); for other energy (eg, alternative energy, nuclear, clean-coal) and linked non-energy plays (eg, those delivering efficiency premiums)
- Especially in emerging markets, as that’s where more supply will need to come from and where demand growth is gravitating

Demand Side Drivers Are Many & Powerful

- Oil demand rises with mega-trends including population growth, economic expansion and trade
- Demand for higher quality products adds stress on refining systems
- Over time, demand reduction factors should play an increasingly important role. Think here of efficiency gains, environmental rules and competition from other fuels
- Room for substitution, however, is significantly more limited than in the 1970s-'80s. Natural gas is scarcer, nuclear has issues (still); coal needs new technology; and alternatives need technology and time
- An economic crises would slow down oil demand growth, might even cause a temporary contraction. For prices to come down significantly, however, the medium term outlook would have to shift
- A good leading indicator of such a shift is probably settlement and open interest of long-dated oil futures.

Long-term Oil Price Involves "Cost"

- Our normal price $43/bbl WTI is a judgment of where we think costs for the least-efficient, significant segment of oil producers anywhere had risen last summer
- Relatively high floor price summarizes bottom-line under several trends/drivers lifting price: upstream capacity constraints (including rigs, people, pipe, support vessels, offshore kit), possibly part of long investment cycle
- Among those drivers: host government expectations ("greed"); more oil having to come from frontier areas; and depletion of mature/existing producing provinces
- These effects are exacerbated by a wide-spread, quite stubborn belief among industry veterans that $20 oil is still the natural mean (Even Brazil's Petrobras signs off on projects only if they perform with $25/bbl oil. Most majors are proud of project hurdle rates in this vicinity too).
- Not surprisingly, host governments and international majors find negotiations on new developments increasingly difficult
- Doors are opening up all the faster for other companies

Not a Question of Resource but Capacity

- Not only are there limits to capacity all up and down the supply chain currently, there are limits to how fast oil production capacity can grow
- Projections need to include resource recoverable, but also politics, legal and other societal structures, industry make-up, financial realities, technology and competition
- On current trends, production-capacity peaks before demand would
- That cannot happen and demand should prove the more flexible.
- Agents of demand-side change: Price and government.

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Risks, or How We May Be Wrong

- System risks (war, pandemics, economic depression, large-scale terrorism etc)
- Timing, over time things change and technology, ingenuity, laws of unintended consequences etc are beyond our predictive capabilities: what we now think will take a long time, may get resolved quicker
- Most of these come with some advance warning however

Conclusion

- Aside from system risks, we believe there is much smaller oil price risk to the downside than most think
- Until something changes (economic recessions, pandemics, war, terrorism)
- Aside from finding the resource, getting that energy to market (eg, pipelines, terminals, tankfarms, distribution racks)
- This structurally bullish view of oil is not subscribed to by the mainstream, so opportunities remain.

Contact information

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Mr. Stuart is an executive director and oil economist in the energy group of UBS Investment Research. He provides fundamental analysis of oil markets worldwide, focusing on oil price estimates, supply/demand forecasts and other key indicators.

Prior to joining UBS, Mr. Stuart was head of research for Energy Futures at Fimat, a subsidiary of Société Générale. Before that he was head of Global Energy Futures research for ABN Amro. Prior to that, Mr. Stuart was editor of Petroleum Intelligence Weekly and the bureau chief of Oil Market Intelligence.

Mr. Stuart holds a M.S. in Journalism from Columbia University, a M.A. in International Relations from Boston University (Paris) and a B.A. in International Affairs from American University in Paris, France.

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Risk statement

Oil prices are extremely volatile in the short, medium and long term, as they are frequently affected by inherently unpredictable events, including natural disasters. In history, oil prices have proved consistently unpredictable because so many political, geological, and economic trends and events affect the supply of and demand for oil.

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UBS Investment Research: Global Equity Ratings Definitions and Allocations

UBS rating	Definition	UBS rating	Definition	Rating category	Coverage [1]	IB services [2]
Buy 1	FSR is > 10% above the MRA, higher degree of predictability	**Buy 2**	FSR is > 10% above the MRA, lower degree of predictability	**Buy**	48%	34%
Neutral 1	FSR is between –10% and 10% of the MRA, higher degree of predictability	**Neutral 2**	FSR is between –10% and 10% of the MRA, lower degree of predictability	**Hold/Neutral**	45%	33%
Reduce 1	FSR is > 10% below the MRA, higher degree of predictability	**Reduce 2**	FSR is > 10% below the MRA, lower degree of predictability	**Sell**	7%	32%

1: Percentage of companies under coverage globally within this rating category.

2: Percentage of companies within this rating category for which investment banking (IB) services were provided within the past 12 months.

Source: UBS; as of 30 June 2006.

Key Definitions

Forecast Stock Return (FSR) is defined as expected percentage price appreciation plus gross dividend yield over the next 12 months.

Market Return Assumption (MRA) is defined as the one-year local market interest rate plus 5% (an approximation of the equity risk premium).

Predictability Level The predictability level indicates an analyst's conviction in the FSR. A predictability level of '1' means that the analyst's estimate of FSR is in the middle of a narrower, or smaller, range of possibilities. A predictability level of '2' means that the analyst's estimate of FSR is in the middle of a broader, or larger, range of possibilities.

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