Today's Oil Prices:

Temporary Tightness, Paradigm Shift, or Speculative Bubble?

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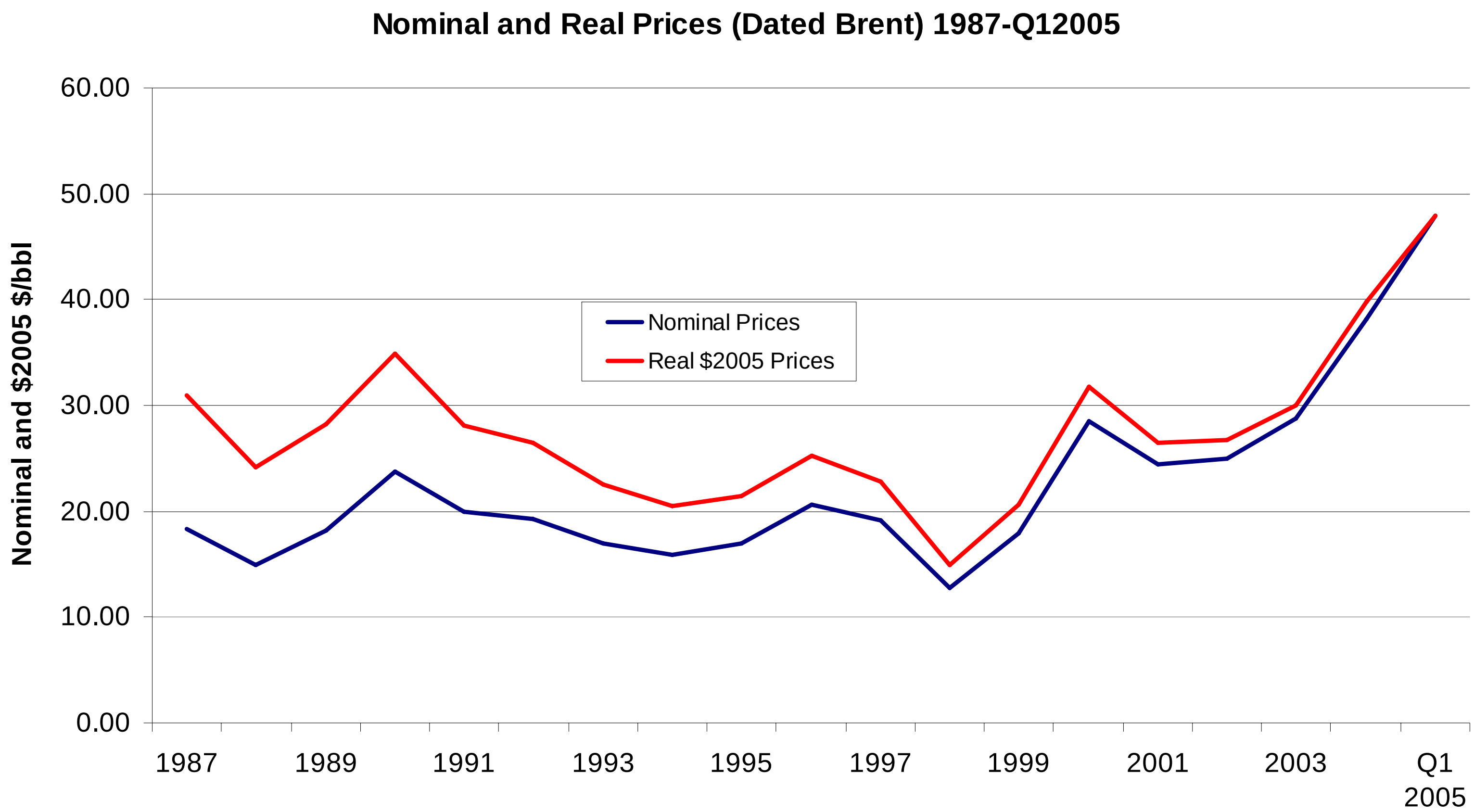
Outline

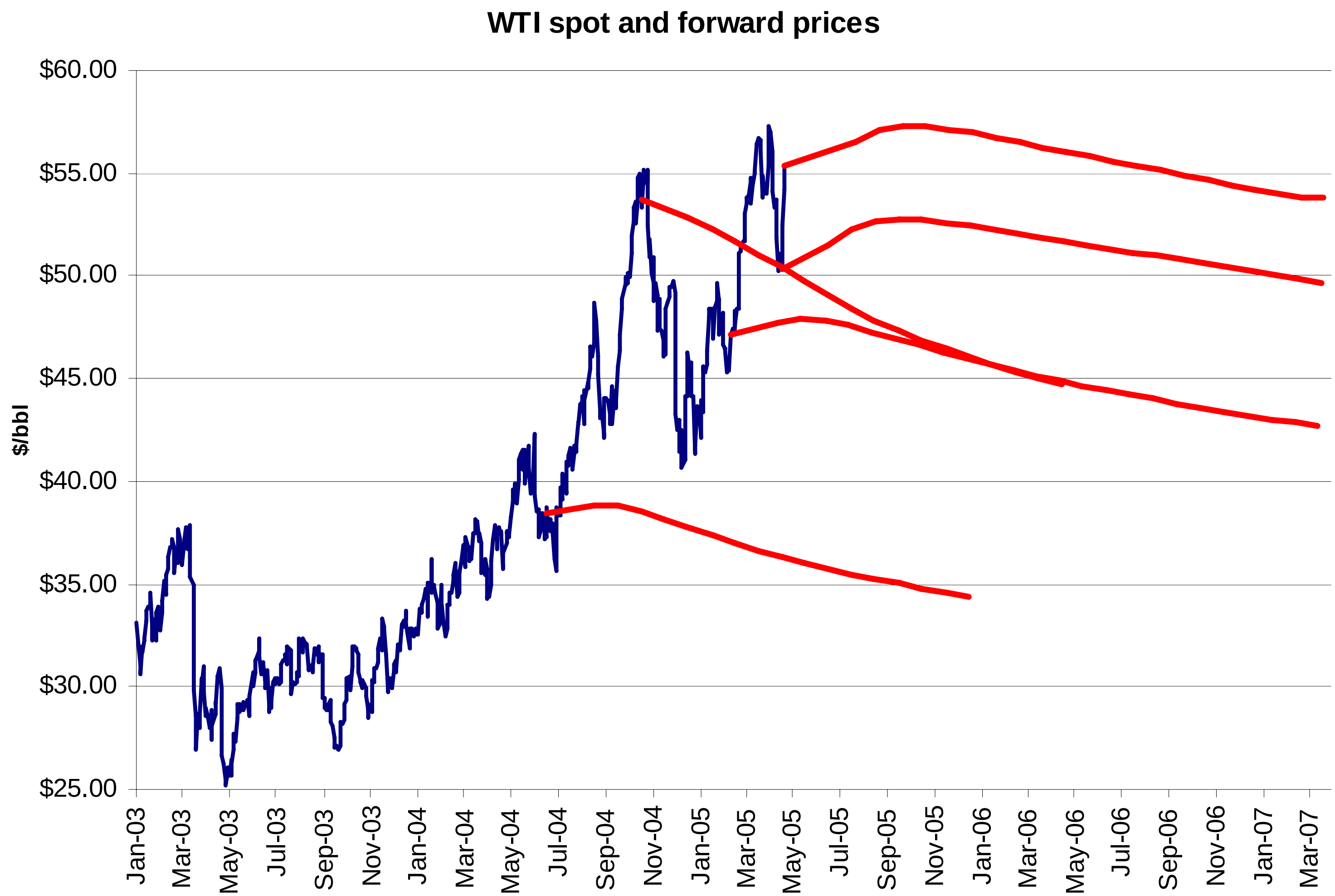
- The Big Change
  - Oil and other energy prices have moved substantially higher
- Questions About the Market
  - Temporary or structural factors?
  - Hubbert Curve?
  - Speculative Bubble?
- Is it a speculative bubble?
  - Rise of commodity investments
  - Interplay between Opec and investors
  - It started one way, but now reflects something structural
- If it's not (only) speculation, it must reflect structural factors

The Big Change

Oil prices are up by $35/bbl (360%) since 1998, by $20/bbl (170%) since 2000



Forward Prices have risen even more strikingly than Spot Prices



How high will prices go?

- Earlier this month (April 1) WTI (May) closed at $57.27 and Brent at $56.51, their highest levels ever (the September contract closed at $59.12)
- After falling, prices rebounded and closed last Friday at $55.44
- A month ago Reuters published forecasts of 25 leading analysts through 2006
  - Mean forecast for 2005: $42.29 (Brent), $45.49 (WTI)
  - Mean forecast for 2006: $37.77 (Brent), $40.67 (WTI)
- Last Friday, December 2006 Brent traded at $51.49, WTI at $51.49
- Several weeks ago, Goldman Sachs said WTI could spike to $105

Questions About the Market

Questions About the Market

- Is the 'Hubbert Curve' finally impacting oil and gas supplies?
- Is this a temporary, seasonal phenomenon?
- Are there more structural than temporary factors at work?
- Do today's prices reflect a speculative bubble, which might burst with a bang like the dot com, and other bubbles in the past

The Easy Answers

- "Hubbert Curve"?
  - – I have no divine knowledge, but there are other, complementary explanations
- Temporary Phenomenon?

  Almost certainly not, although it is understandable that Opec producers, oil companies and oil market (equity) analysts keep insisting it is
- Focus on: Is it a bubble? What structural factors are at work, and how do these impact prices?

Is this a speculative bubble ?

Who argues it is?

- Main proponents: Opec leaders, especially Saudis
- Many oil traders
- Some serious oil market analysts (See P Verleger presentation at Univ. of Texas on February 18, 2005)

Recent speculation (mostly unsupported) about impact of speculation on oil prices

- "Record breaking prices are a result of pure speculation by hedge funds and commodities traders, not a result of negative market fundamentals…there is no real supply shortfall… Prices are inflated by about $15 a barrel," *Fadel Gheit, Oppenheimer, 18 August 2004, when WTI passed $47*

- The run up in oil costs is due to a combination of factors: "strong demand, precautionary stock-building amid supply worries and a revival in market speculation,." *Alan Greenspan, 15 October 2004, when oil prices exceeded $55.*

- "The oil price is not an imminent threat, but it is a potential threat, and we need to get rid of the fear factors contained in the price…Speculation is responsible for up to 60 percent of the increase in oil prices," *Chancellor Gerhard Schröder at the G-8 summit, 10 June 2004.*

Opec and the IEA appear officially to agree that speculation plays a major role

- “Geopolitical concerns over tensions, conflicts, including terrorism, can add to the price of oil in future markets, like IPE and NYMEX. Recently given the increased geopolitical concerns and tensions, it is estimated that as much as $8 has been added to the price of oil that is based on fundamentals (supply, demand, stock level, etc.). This is reflected in large daily volatility in price of oil in response to such events.” *Adnan Shahab-Eldin, Opec, 18 June 2004.*

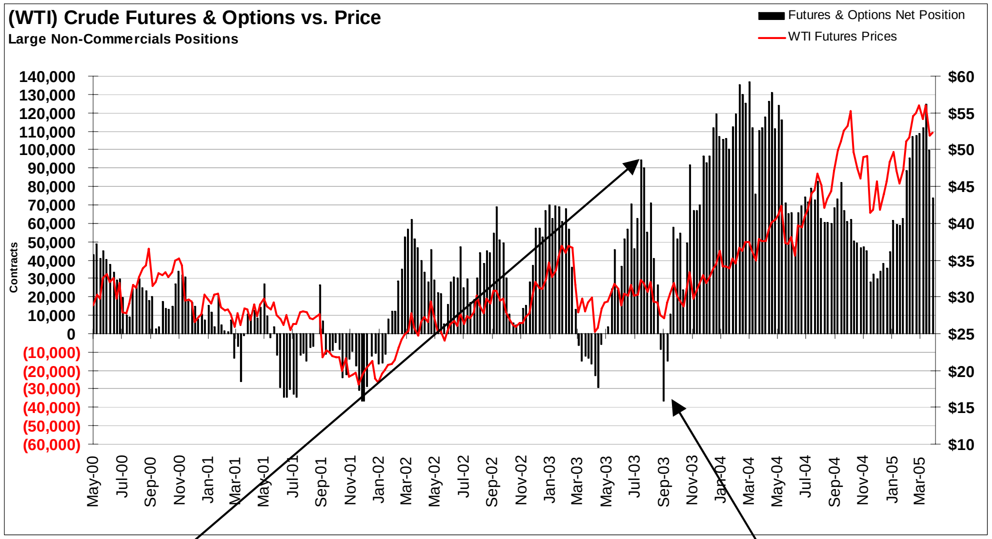
- “The oil market interprets news…as though we live in an unpredictable and dangerous world and there is no buffer against unexpected events… The market incorporates all of these factors into technical analyses that project further increases in the oil price, to $60 per barrel, $70 per barrel or higher. Unfortunately, these doomsayers are not paying attention to market fundamentals, which are clear.” *Claude Mandil, 19 October 2004*

The Saudi/Opec Argument

- Ali Naimi in Paris last week, in Texas this week: '*The fundamentals of supply and demand for oil today are very sound, but the market is dancing to a different tune*.'
- Opec/Saudis can do little to reduce prices
- Banks, hedge funds and investors have "piled into overheated futures markets"

Basis of the Saudi Argument

- Growth in net long position of "non-Commercials on the Nymex
- The "proof" is found in both the size of "speculation" and in the relationship between prices and net length
- At times Opec can 'interact" with speculataors



- In August 2003, net length peaked,
- 90-mmbbl net length became 40-mmbbl short
- WTI prices fell from $35 to $27 in 6 weeks
- Opec cut, the shorts were punished, prices rose

Basis of the Analytical Argument

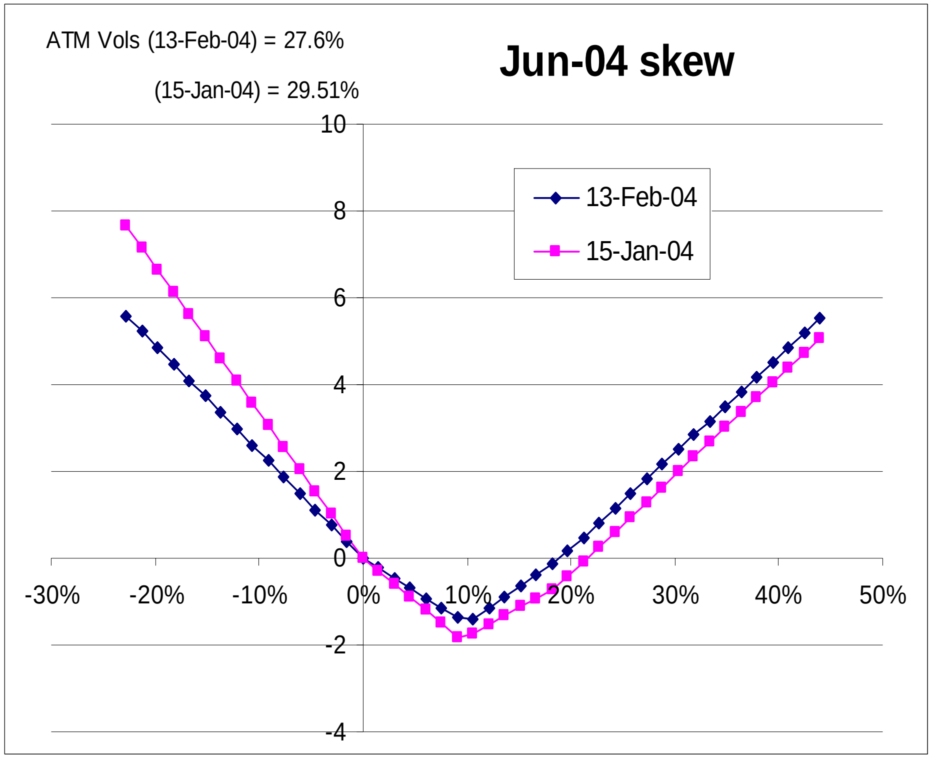
- A tremendous amount of money is flowing into energy, largely because of the commodity boom
- CFTC Commitment of Traders reports are misleading – who are the speculators? Oil trading firms are mostly commercials not non-commercials; OTC instruments are not measured
- Even so, growth of commodity investments is huge:
- GSCI, AIG, other commodity indices have 600-million barrels oil equivalent investments
- Our estimate is double this for a reasonable total, based on our view of amount of "investor" activity
- Result: 1.2-billion barrels of oil-equivalent investment
- Funds appear to have invested total of $5-billion by 2003, $50-billion in commodities in 2004, investing another $50-billion this year; if all were in oil would add another 1-billion barrels
- Rapid liquidation would result in a massive sell-off

Saudis, Opec started this

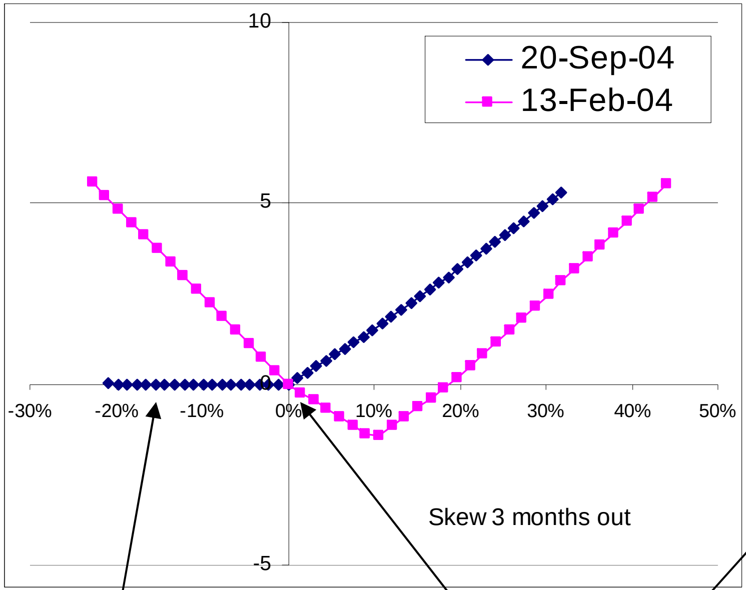
- Free put options certainly induced “investors” in 2003/2004 by making upside investments much less risky
- Opec credibility increased level of investments
- US elimination of low priced call eliminated implicit $35 ceiling, further fueling speculation
- US dollar depreciation also played a role

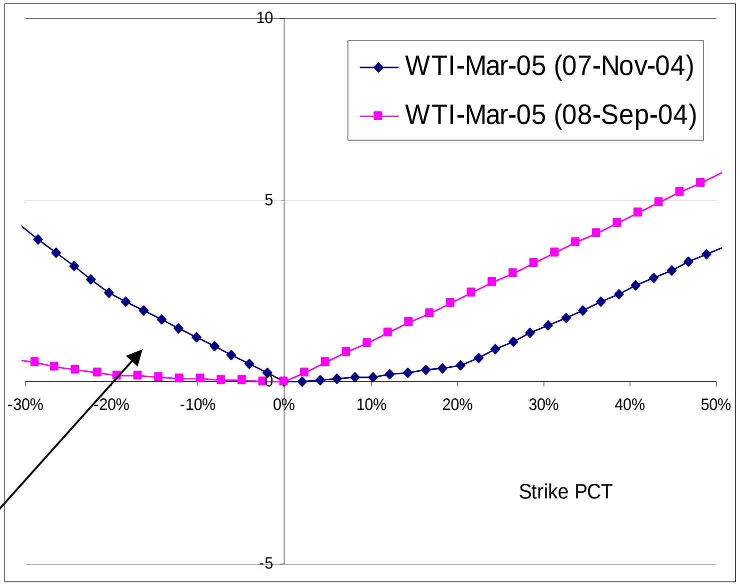
By mid-2004, the market was poised for an upside “breakout”

- Volatility curves flattened, as market participants grew complacent about both downside risk and even about a 20% upside move
- The market was poised for a major breakout, which occurred in September and October, as WTI hit $55
- The price breakout also enticed producers back into the market, bidding up the price of puts



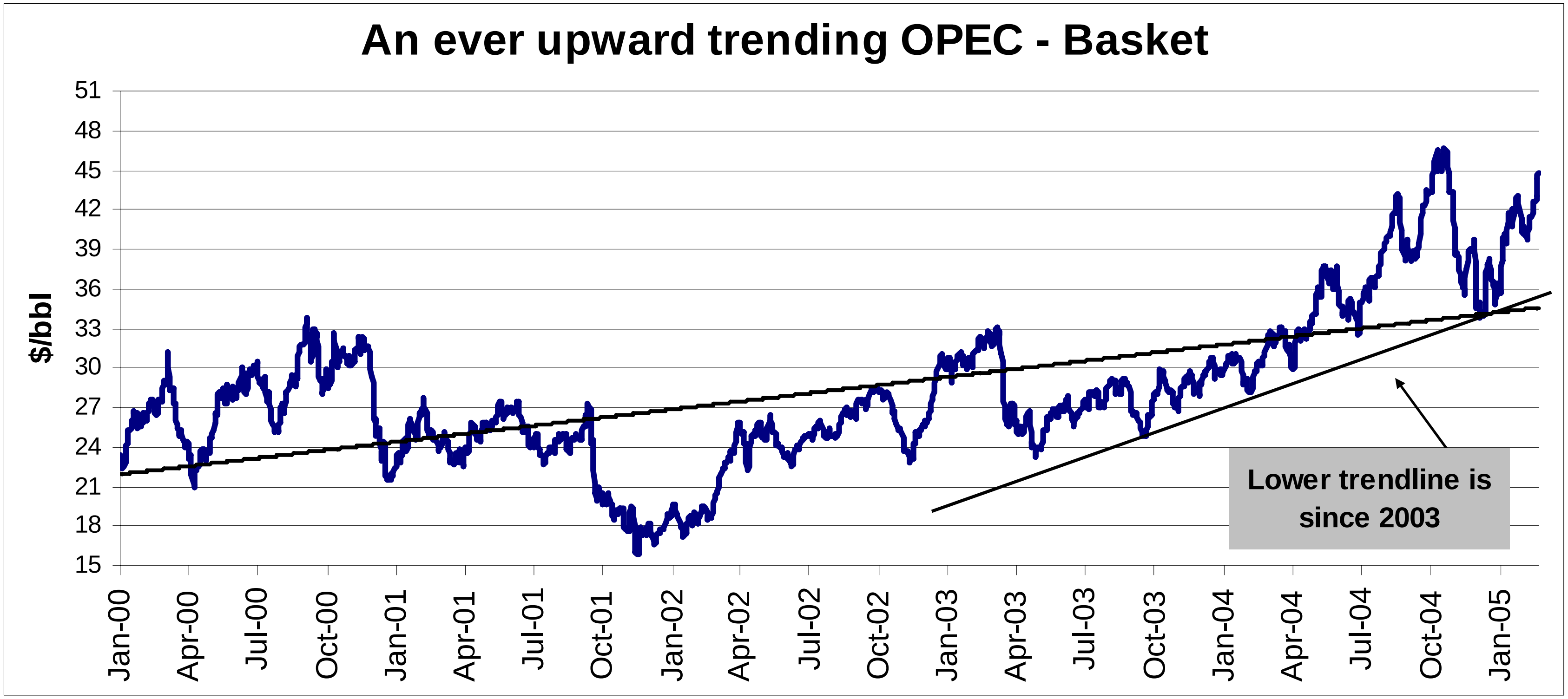
After massive producer hedging, volatility "returned towards normal"





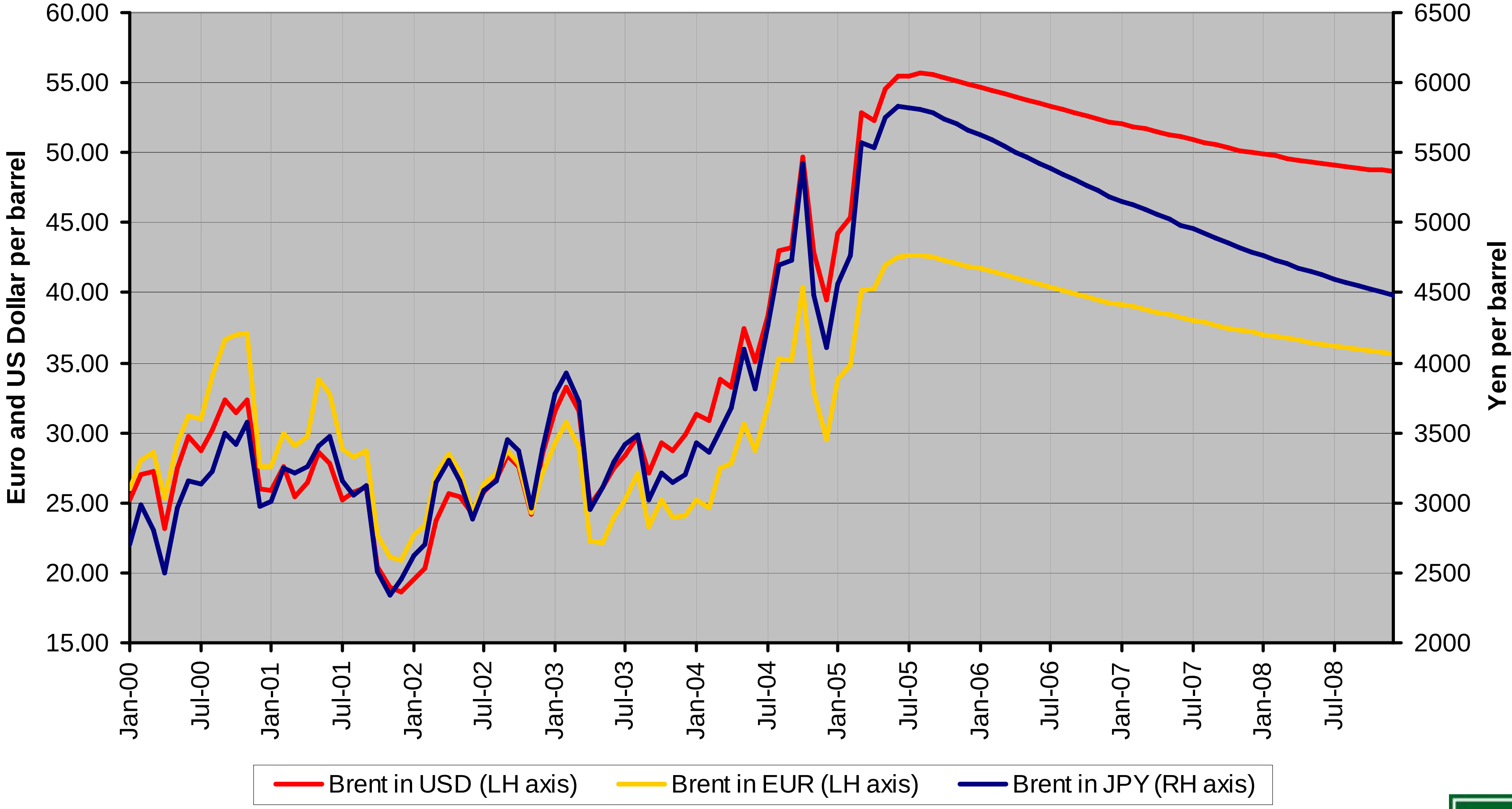
- The three-months-out put-skew collapsed between February and September 2004. The skew at the fall 2004 was based on the expectation that Opec would "guarantee" a free floor
- A very large producer hedging program at the end of 2004 restored a more normal volatility smile…temporarily

Opec will be able to continue managing the floor price well



Source: HETCO

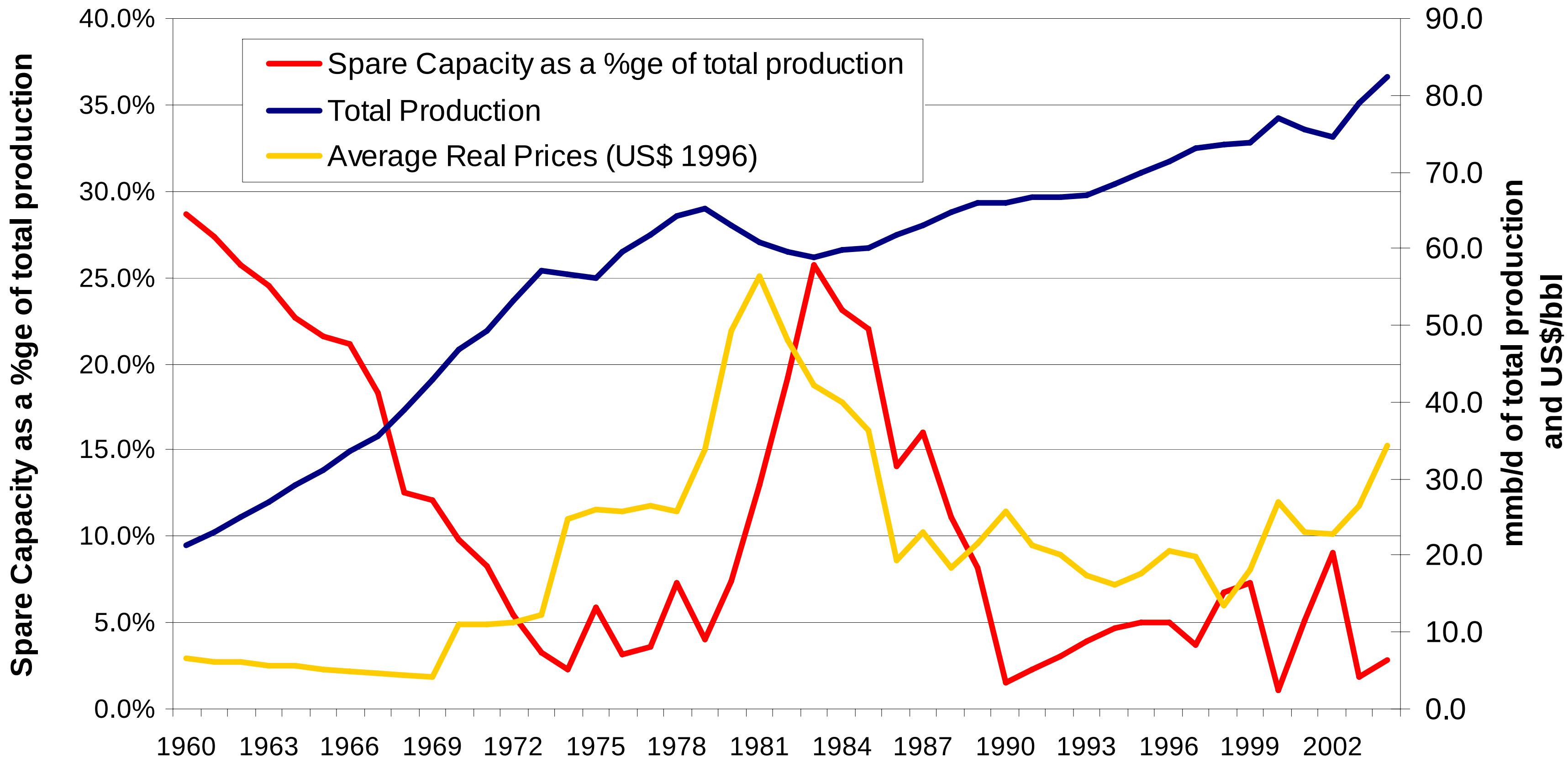
Asian producer hedging, with low long dated oil prices in Yen played a big role as well – but now prices are up too



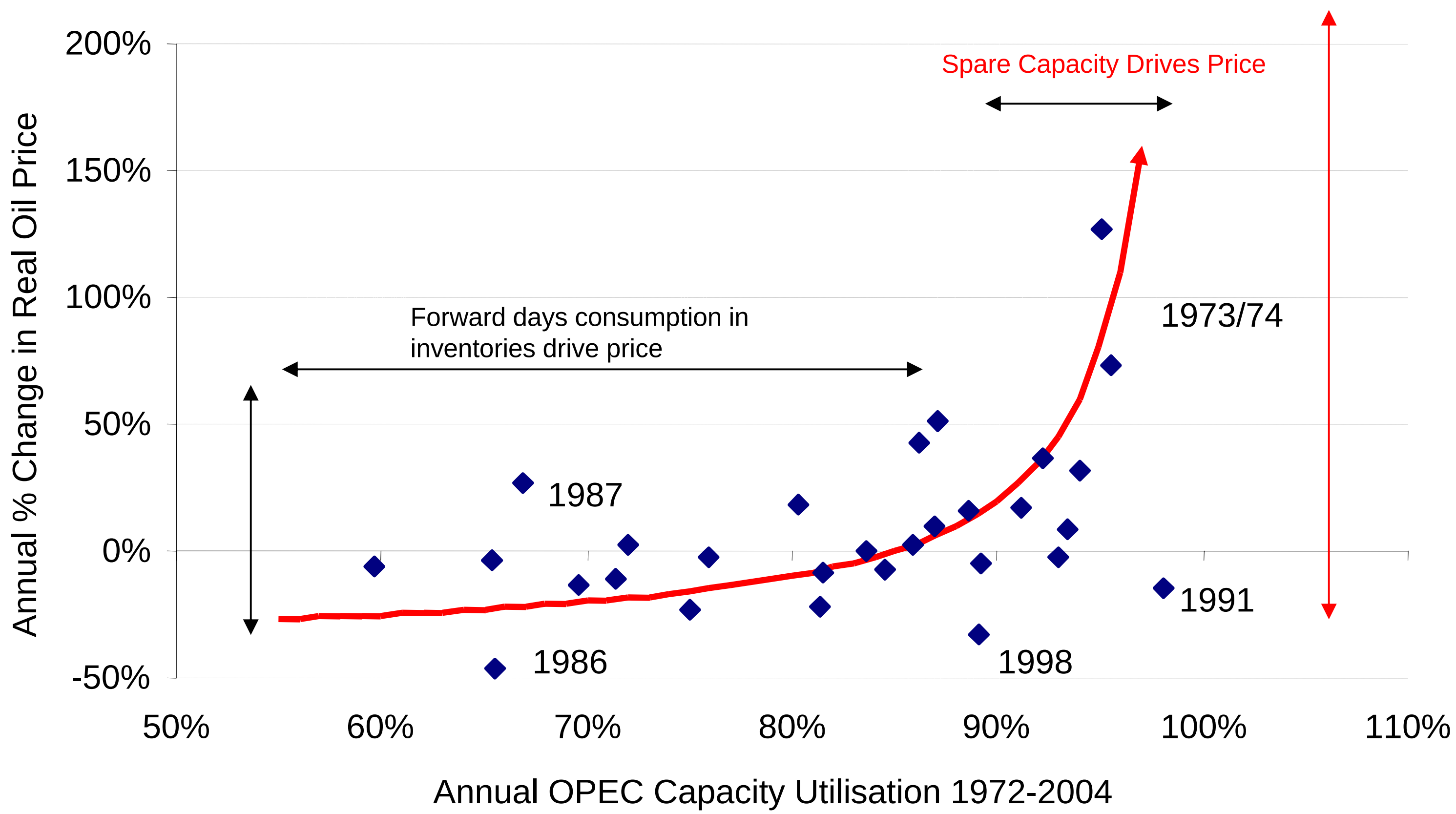
So it's not just speculation

- No one should doubt that "investors" play a role in current pricing
- Unlike "real" bubbles, oil, gas assets are under-priced, not over-priced
- Opec has stopped pushing for low inventories, backwardated markets and prices remain robust
- Opec can step in easily to stem a price collapse

Historical prices, spare capacity, traditionally inversely related: an indication it's something structural

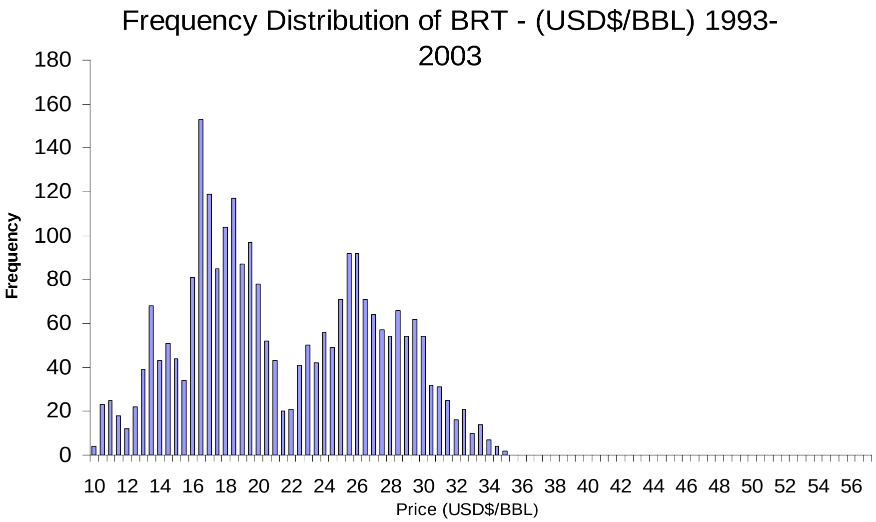


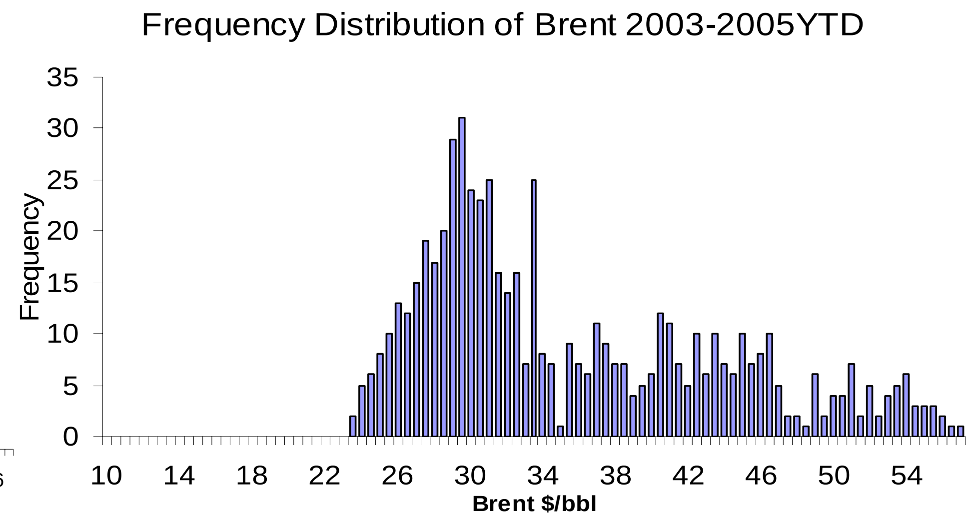
Connecting the dots - prices rise exponentially when utilization is over 90%

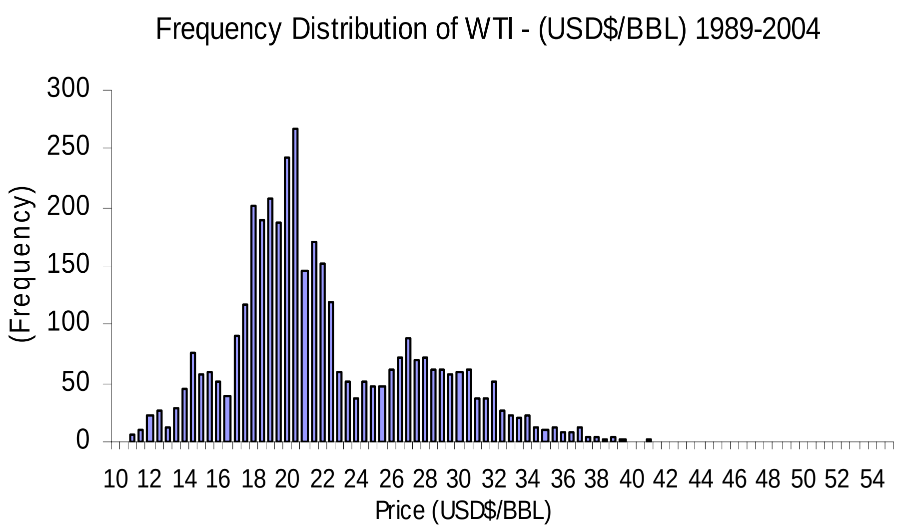


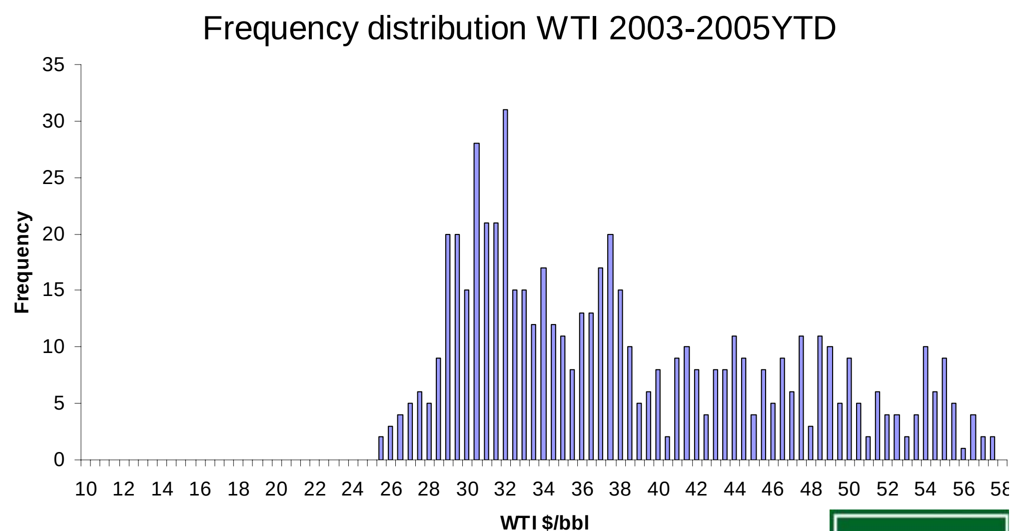
Source: US DOE/EIA; Deutsche Bank estimates

Oil prices are clearly shifting upward

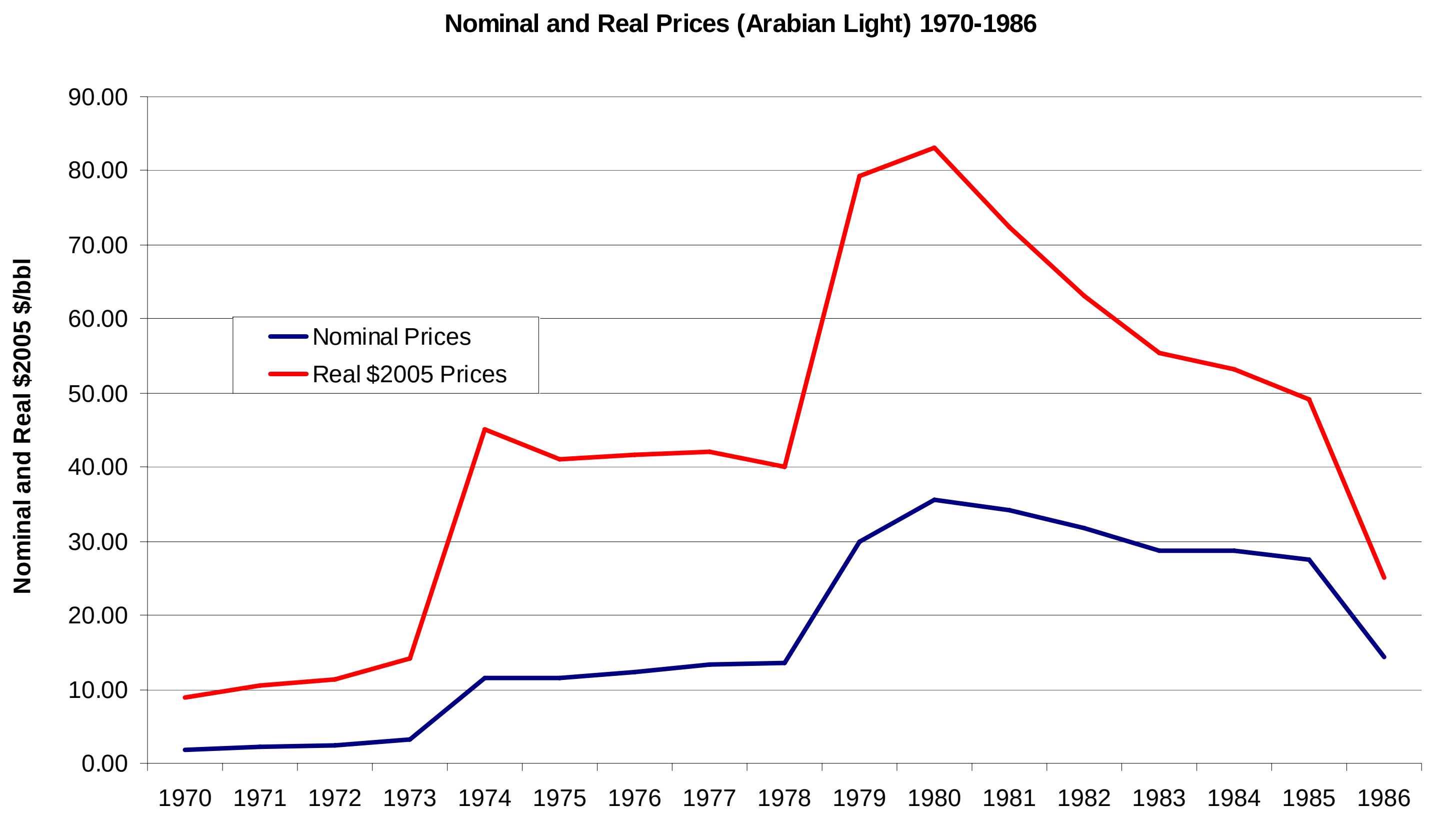








Is this a repeat of the 1970s, when prices increased by 1980% before falling?



If conditions are similar to those in the 1970s, prices could still rise significantly

- Before the price “explosion” of 1973-74, average oil prices had risen by 200% in three years, reflecting tightening market conditions
- If we discount the price dip of 1998 as due to truly exceptional circumstances, today’s market looks a great deal like the market in 1973
- From 1973 to 1981, nominal prices rose by 1000%, real prices by 600%
- This is not a forecast, since circumstances are different today; but it is an indication of upward potential

HESS ENERGY TRADING COMPANY LLC

A PROFILE

HETCO is a proprietary trading company and market maker focusing exclusively on the energy business, created in mid-1997 as a joint venture between Amerada Hess Corporation and Stephen Hendel and Stephen Semlitz, two former partners of Goldman Sachs & Co., who built the J. Aron trading group in the 1980s and 1990s. It has rapidly become a major presence in both the paper and physical markets, especially in the Atlantic Basin, with offices in New York, London and Boston. HETCO has the ability to create an array of derivative market instruments to satisfy customers' needs. At the same time, the link to Amerada Hess Corporation and the Amerada Hess system provides the group with a presence and understanding of the physical markets as well as the full credit support of the Fortune 100 company.

HETCO's professional trading team undertakes transactions in international and US-domestic crude oils, natural gas, and petroleum products. It is also active in energy swaps and derivatives, and in weather risk management. It is one of the largest participants on both the London International Petroleum Exchange and the New York Mercantile Exchange.

HETCO works with complete discretion with its clients and partners, which include independent refiners and producers, pension funds, endowments, hedge funds, and sovereign entities.

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