

The evolution of traders and activities in the NYMEX energy futures complex

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Overview

- Understanding the character of the traders
- Understanding the nature of the trades
 - Hedging
 - “Straight” speculative longs and shorts
 - Spread trades
- Speculative trades and hedging capacity
- Speculative trades and risk

Traders

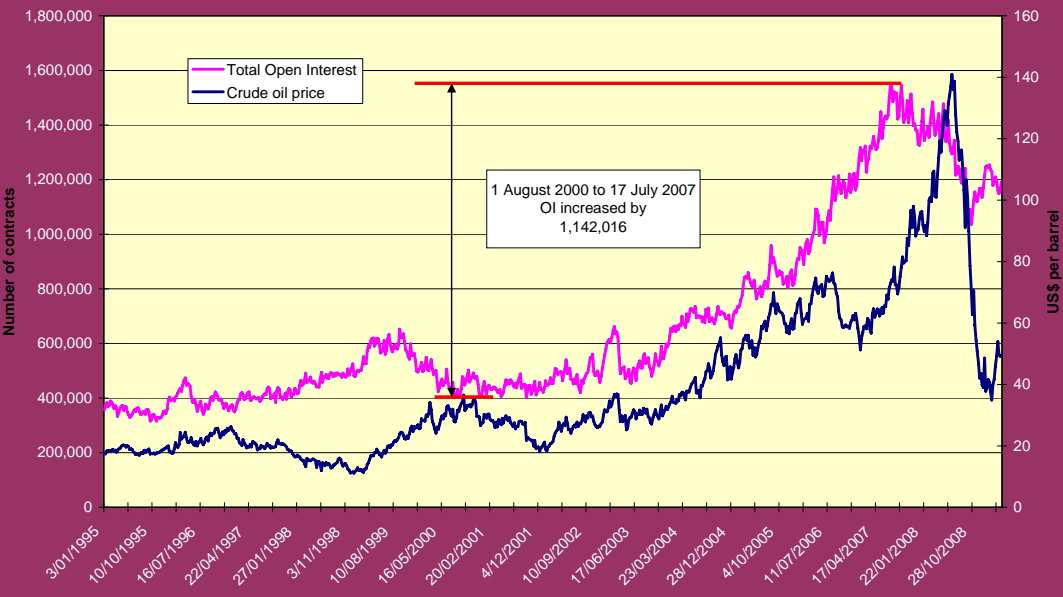
➤ Hedgers

- Commercials
- Pure hedgers
- Other hedgers

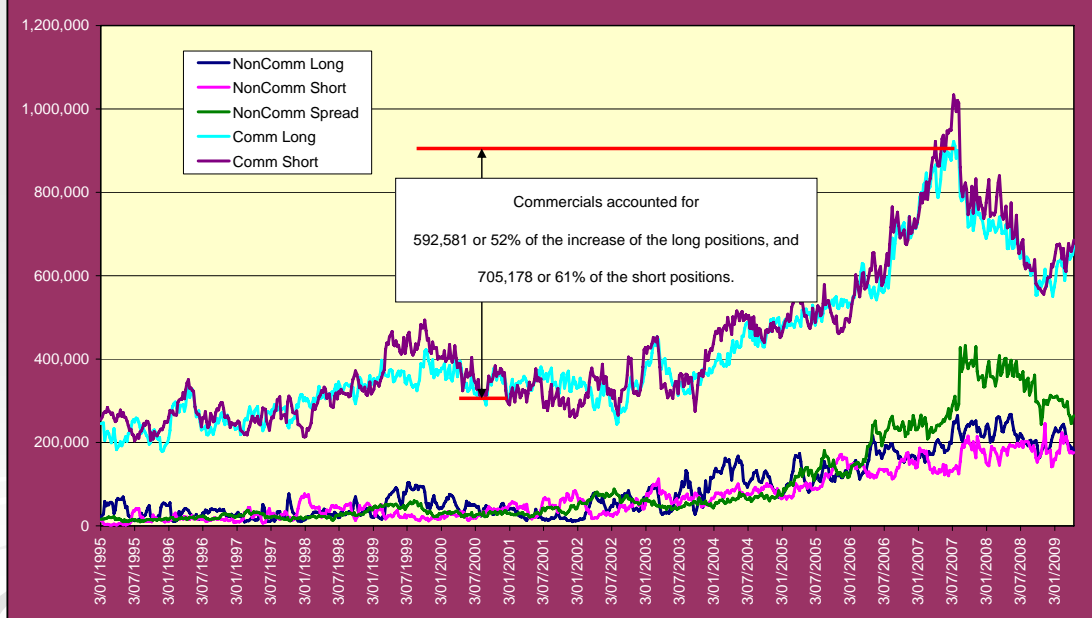
➤ Speculators

- Non-commercials: long, short, spread (CFTC)
- Investors?

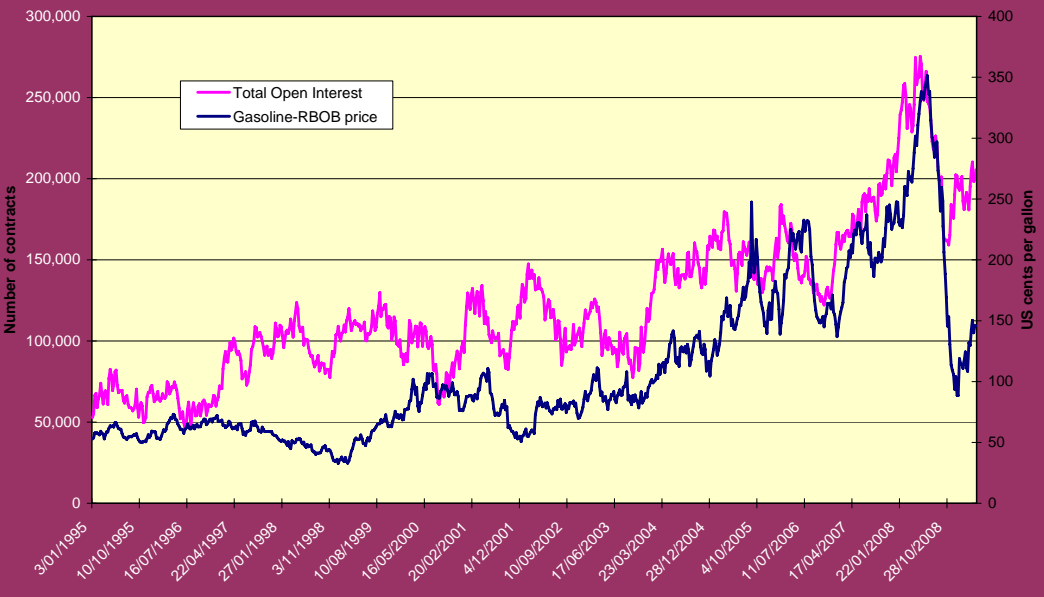
Crude oil Open Interest and Near-month Futures Price



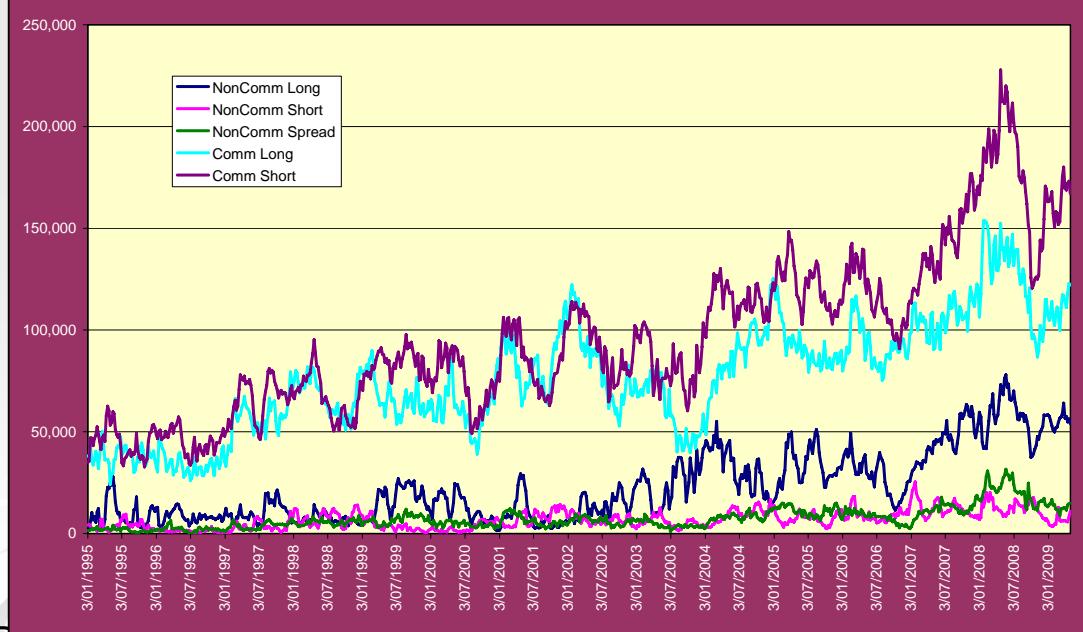
Crude oil futures open interest positions



Gasoline-RBOB open interest and near-month futures price



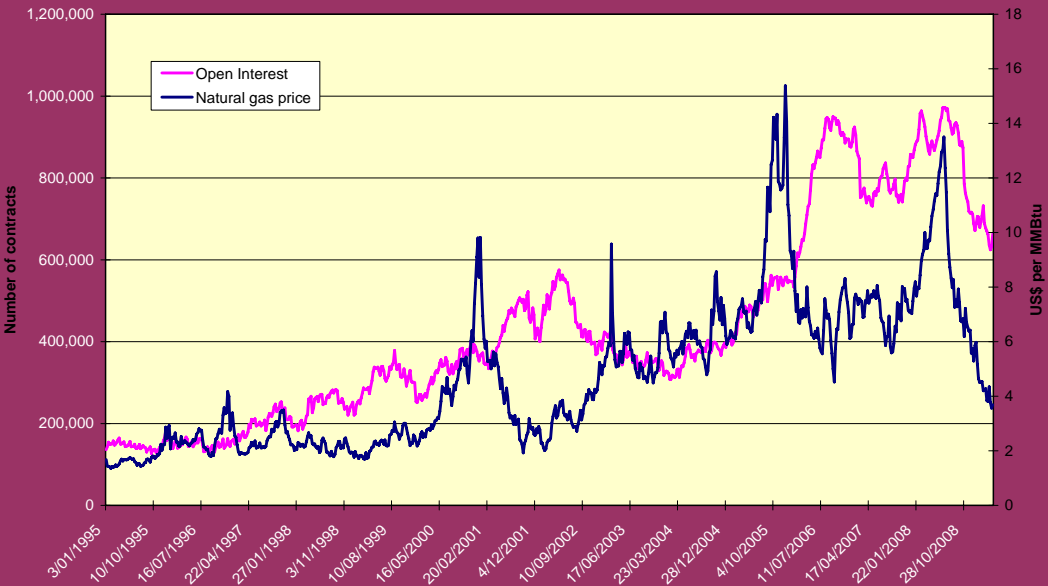
Gasoline-RBOB futures open interest positions



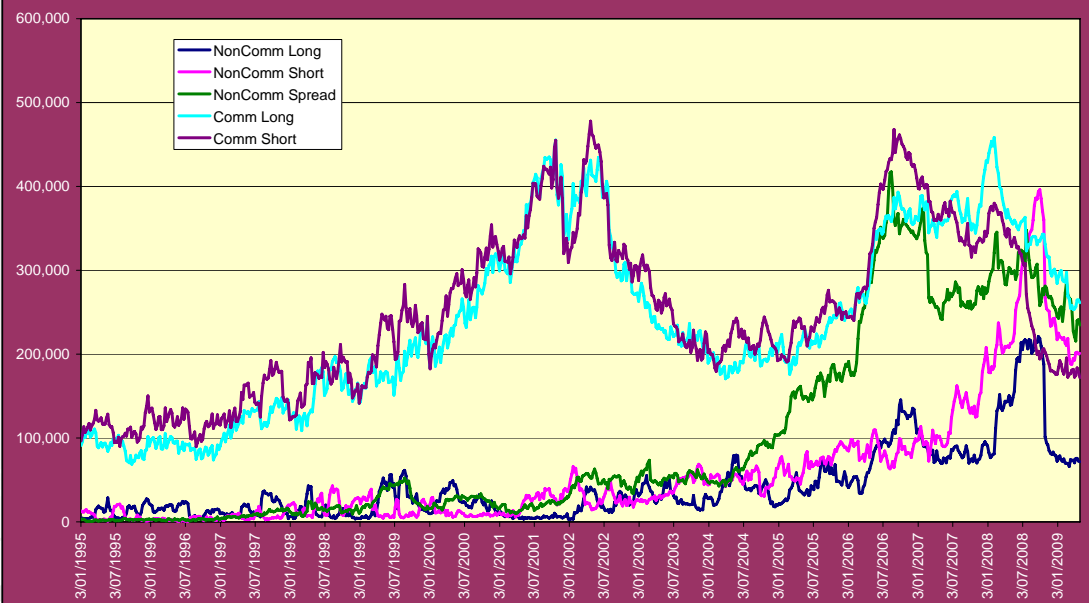
8/07/2009

Prepared by R.D. Rippe

Natural gas open interest and near-month futures price



Natural gas futures open interest positions



Trades

➤ Hedge

- Short when you expect to be long the commodity on the date in the future
- Long when you expect to be short the commodity on the date in the future

➤ Speculative long and short trades

➤ Speculative spread trading

- Calendar spreads: simultaneous long and short in the same commodity but for different maturities

Spread trading

- Spread trading is relatively low risk trading
 - Profit is made by a change in the slope of the forward curve
 - The volatility of these returns is much lower than that for straight long and short positions
- Spread trading actually provides the potential for increased hedging, and by speculators taking lower risk positions.

Spread trading

Calendar Spread Profitability		
Forward curve character	L-S*	S-L*
Backwardation		
Steepening	YES	NO
Flattening	NO	YES
Contango		
Steepening	NO	YES
Flattening	YES	NO
* - L-S spread means the trader is long the near maturity and short the distant maturity. And, S-L spread means the reverse.		

Spread trading

$$R_t^T = R_t^i + R_t^j$$

where: R is return

T is total return

i and j are maturities, with $i < j$

t is the time period when the position is closed and profit realized

$$R_t^T = (p_t^i - p_{t-1}^i) + (p_{t-1}^j - p_t^j)$$

where: p_t^i is the futures price in time period t for the nearer maturity

p_t^j is the futures price in time period t for the more distant maturity

Speculative trades and hedging capacity

- Straight long provides the opportunity to hedge short
- Straight short provides the opportunity to hedge long
- Calendar spread provides the opportunity for both a long and a short hedge

Speculative trades and risk

- Calendar spreads are much less risky than straight speculative positions
- This is due to the return being dependent upon the movement of two contract prices

Standard deviation of daily returns (%): 1995-2009		
	Calendar spread*	Straight long/short
Crude oil	0.0079	0.0252
Natural gas	0.0155	0.0384
Gasoline-RBOB	0.0191	0.0581
* - Spread between near month and next-to-near month		

Conclusions

- Different types of traders but all seem to take somewhat speculative positions.
- Calendar spread trading potentially increases the hedging capacity of the futures market.
- The changes in the level of spread trading suggest that this capacity did increase, at least for crude oil and natural gas.
- The lower risk nature of spread trading means that the increased hedging capacity came at a lower than otherwise “cost” in risk within the market.
- In each market the commercial traders dominate throughout the period.