

Oil Market Stability in Times of Fear and Greed

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1. Background and Summary

According to energy industry professionals there is no shortage of oil and high current prices are not justified by the fundamentals of supply and demand, which would indicate a price in the mid \$40.00 range. But with the reduction of world surplus production capacity from over 6 mbd to less than 1 mbd, it can be argued that markets care less about fundamental realities and far more about psychological factors—fear and greed, and this is pushing up the price of oil. Restated, actual supplies are not at issue; expectations of future difficulties in production and possible supply chain disruptions are driving prices up or down.

Oil supplies experience extremely long supply chains, making the current price less a reflection of current realities and more of future expectations. This is less true when oil is plentiful and a generous production surplus is on hand for any disruptions, and truer when the daily oil balance—a measure of excess capacity—becomes small enough so that any disruption might threaten future oil supplies at current prices. Note the phrase, “at current prices.” It is not being argued that oil would not actually be supplied to markets during these supply disruptions, only that they would accelerate price rises, since getting the oil to those who want it would then become more expensive.

Crude oil market behavior has therefore shifted after 2003-2004 when the oil balance became small and prices began rising from being grounded and motivated by supply-demand relationship analytics to reaction behavior analytics among market users. This is why crude prices have become hypersensitive to news and rumors. It is not being argued that crude oil cash and futures are becoming more volatile. But if prices are not exactly volatile their primary characteristic is certainly instability, with price runs up or down possible at any time. And, the instability has increased since 2004.

Under these circumstances markets focus on the actions and reactions of traders themselves—how traders are likely to react to a specific bit of news, and less to the news themselves. If this were not the case, technical analysis—price charting—would be a useless enterprise with no forecasting capacity whatsoever. But it does have this capacity, precisely and solely because traders are likely to trade on its signals, thus verifying the forecast. This and similar behavior, leads to unstable market conditions because of the increased likelihood of behavior cascades and highly correlated thinking among market participants. Indeed, the abandonment of supply-demand analysis in favor of reactionary analysis leads to increased correlative reactions, as everyone either sells or buys at predetermined signals having nothing to do with the realities of oil supply and demand.

2. Key Features

The poster will include graphical and price time series examples of price runs typical of market instability, and supporting arguments and explanations. Key will be an analysis of market behavior characterized by herding, imitation, information cascades, etc. that make price runs a reality, using crude oil futures time series that can isolate price runs with contemporaneous news events. Another graph will show the reduction in OPEC excess production capacity.

It will also be shown, using the same or similar price time series examples, that prices show no pattern of increasing volatility, but rather, of price instability, where runs up or down in prices are likely, and where markets become hypersensitive to any market rumors or news that might affect supply or demand. It will be shown that the percentage change of prices is roughly in the range 30% of the commodity's total price, and that this relationship is rather steady and has not been changed during the recent price run-up since 2003-2004.

3. Conclusions

The poster will conclude with a summary of its key results:

- 1) That crude oil markets display an emphasis on market trading reaction behavior and less on the fundamental realities of supply and demand analysis;
- 2) That this leads to market instability more than to price volatility, which has been rather stable at about 30% of the total price;
- 3) That the reason for this instability is due to a combination of low excess production capacity and in the increasing correlation of trader behavior from price signals, leading to more price runs, up or down.

4. Bibliography

1. Dorsey, W., 2004, "Behavioral Trading," Thompson Texere.
2. Fenton-O'Greevy, M., et al., 2005, "Traders," Oxford University Press.
3. Kaufman, P., 2003, "A Short Course in Technical Trading," Wiley Trading.
4. Mandelbrot, B., 2004, "The Misbehavior of Markets," Basic Books.
5. Montier, J., 2004, "Behavioral Finance," Wiley.
6. Rappaport, A., and Mauboussin, M., 2001, "Expectations Investing," Harvard Business School Press.
7. Schleifer, A., 2000, "Inefficient Markets: An Introduction to Behavioral Finance," Oxford University Press.
8. Sornette, D., 2004, "Why Stock Markets Crash," Princeton University Press.
9. The Organization of the Petroleum Exporting Countries (OPEC), www.OPEC.org
10. Wall Street Journal Commodities Futures, www.Futuresource.com
11. WTRG Economic Rig Count and Energy Forecasts, www.WTRG.com

Author Biography

Dalton Garis is Associate Professor of Economics at the Petroleum Institute, Abu Dhabi, UAE where he teaches Petroleum Market Price Analysis and International Economics. He earned a Bachelor of Science in Industrial Engineering and Operations Research from the University of Massachusetts, a Masters of Science in Agricultural Economics from Texas A & M University, and a Ph.D. in Applied Resource Economics from the University of Florida. Dr. Garis has over 20 years experience in commodity price analysis and has been an invited speaker at oil and gas, refinery, and petrochemical conferences in the Gulf region presenting research on cash and futures petroleum market behavior and price formation. Dr Garis has presented research on oil prices and energy alternatives at the American Society of Mechanical Engineers annual conference in Anaheim, California, USA, and the Society of Petroleum Engineers regional conference in Bahrain. He has also acted as a consultant on the use of futures and options markets for wet barrel hedging for Gulf producers. Dr. Garis is a columnist for *Oil and Gas News*, *ADNOC News*, *Oil & Gas Middle East*, and *Zawya* on oil pricing and marketing issues.