

Has There Been Excessive Speculation in the US Oil Futures Markets?

What Can We (Carefully) Conclude from New CFTC Data?

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Abstract

Because many facets of the global oil markets have not been sufficiently transparent, it is unclear how much of the oil-price rally that peaked in July 2008 can be put down to speculation. This uncertainty has led to concerns that there was actually excessive speculation in the oil derivatives markets. In an effort to make the oil markets more transparent, the U.S. Commodity Futures Trading Commission has recently launched the "Disaggregated Commitments of Traders" report. This report includes three years of enhanced

market-participant data for twenty-two commodity futures contracts. This report makes it possible to examine whether, over the last three years, speculative position-taking in the exchange-traded oil derivatives markets has been excessive relative to commercial hedging needs. We use a traditional metric for evaluating speculative position-taking and find that this position-taking does not appear to be excessive over the past three years when compared to the scale of commercial hedging at the time.



About the Author

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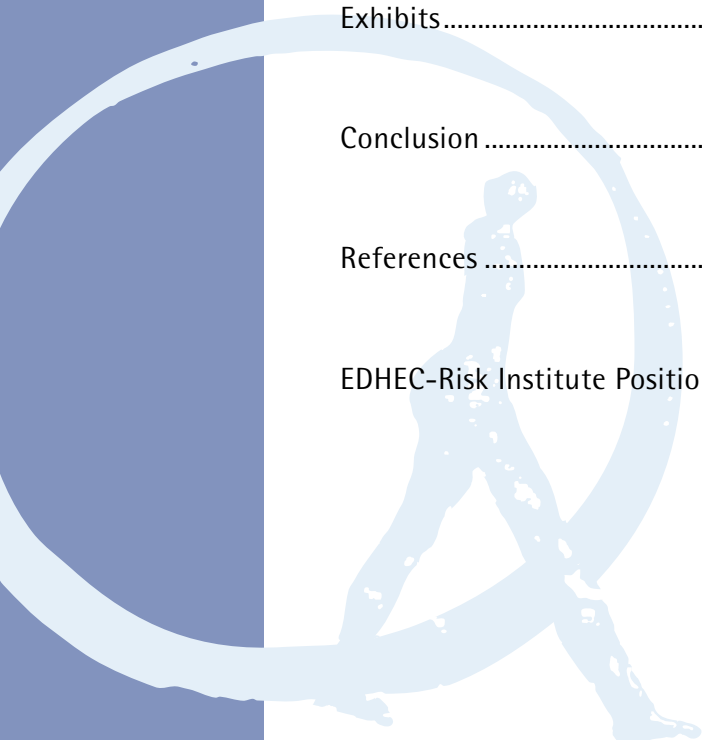
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Her published work on behalf of EDHEC-Risk has been cited in the *Journal of Finance* and *Journal of Structured Finance* as well as by the Bank of Japan, the Banque de France, the European Central Bank, the Bank for International Settlements, the International Monetary Fund, the International Organization of Securities Commissions (IOSCO), the US Senate's Permanent Subcommittee on Investigations, and by the United Nations Conference on Trade and Development. In addition, she presented her research on the oil futures markets to the International Energy Agency at the agency's Paris headquarters in March 2009.

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Introduction

In October 2008, the EDHEC-Risk Institute appealed for the evaluation of the oil futures markets to be based on a careful examination of empirical data. In the EDHEC-Risk paper, "The Oil Markets: Let the Data Speak for Itself," we noted that there were numerous plausible explanations for the oil-price rally that had culminated in July 2008, but that many areas of data uncertainty remained, making definitive conclusions on this matter conditional on increased transparency in these markets.

Our 2008 position paper asserted that many facets of the world oil market, including future productive capacity estimates from major suppliers, inventory statistics from important non-OECD consumers, and summary position data from derivatives participants, have been too opaque.

The US Commodity Futures Trading Commission (CFTC) has recently made significant progress in addressing the latter challenge: the need for improved market-participant data.

On October 20, 2009, the CFTC released three years of enhanced market-participant data for twenty-two commodity futures markets in its new "Disaggregated Commitments of Traders" (DCOT) report.¹

For statisticians and economists, this is a welcome announcement of additional transparency in the workings of the US futures markets. The public release of detailed market-participant data also shows that the CFTC is continuing in its decades-long tradition of providing policymakers and academics with empirical data that (one hopes) can be used to make sound decisions on the regulation of the US futures markets.

Our new paper on the oil markets examines whether this increased transparency can provide any answers on whether there has been excessive speculation in the US oil markets. Using a traditional metric for evaluating speculative participation, we find that outright position-taking in US exchange-traded oil derivatives contracts has fluctuated in a largely normal range based on historically relevant benchmarks.

1 - The first tranche of the Disaggregated Commitments of Traders report for twenty-two major physical markets was released on September 4, 2009; the three years of historical data were not made available until October 20.

1. Background on Publicly Available Data

Before the release of the new Disaggregated Commitments of Traders report, the CFTC had already provided market-participant data in its weekly Commitments of Traders (COT) report. This report classifies futures-and-options open interest according to three categories: commercial, non-commercial, and "non-reportable". The latter category includes small traders whose position sizes are smaller than the CFTC's reporting threshold, and are thus "non-reporting".

In using the COT report, analysts have traditionally viewed the "commercial" category as commercial hedgers, and the "non-commercial" category as futures speculators. Furthermore, "commercial hedgers" were traditionally regarded as those who were involved in the handling of the physical commodity.

The meaning of the traditional COT categories became ambiguous when swap dealers, who were providing commodity-index exposure to investors, became classified as "commercials". In a broad sense, swap dealers who hedge the exposure of their swaps with positions in futures markets are indeed hedging. But they are not hedging in the traditional sense of the word.

Therefore, it became difficult, strictly speaking, to understand the balance between (physical) commercial hedging in the futures markets and participation by those not involved in the handling of the physical commodity.

As a result, the CFTC has gradually been rolling out new reports to address this ambiguity.

Starting in 2007, the CFTC began releasing a "Commodity Index Traders" (CIT) report, which provided information on index participation in twelve agricultural futures

markets. The CIT report includes data back to 2006. The CIT report, though, does not include the oil markets.

But with the October 20 launch of the DCOT report, we can now directly examine the break down of open interest between pure handlers of commodities and other market participants. Specifically, the DCOT report creates four new categories of large traders:

- (1) Producer/Merchant/Processor/User
- (2) Swap Dealers
- (3) Managed Money
- (4) Other Reportables.

This granular categorization of market participation can help us determine whether there has been excessive speculation in the US oil futures markets. In examining this question, we will use the framework of Sanders *et al.* (2008), which was originally created to analyze the US agricultural futures markets.

2. Traditional Metric for Evaluating Speculative Activity

Sanders *et al.* (2008) wrote that one way of examining the adequacy or excessiveness of speculative participation in the commodity futures markets is to apply Working's speculative T index, which the eminent economist Holbrook Working originally devised in 1960.

The idea behind the T index is that the economic function of commodity futures markets is for hedging and fulfilling risk-management needs. Even when commodity futures markets are viewed as "hedging" markets, there is still a vital role for speculators because there will not always be an even balance of short hedgers and long hedgers at any one time. Therefore, speculators are needed to balance the market. Historically, in the agricultural futures markets, there was not enough speculation to provide for commercial hedging needs.

The question now, especially in the oil markets, is whether the scales have not been tipped the other way. Quite simply, if there is more speculation than is required for commercial hedging needs, a futures market becomes one of speculators trading with other speculators, and the century-long question concerning the economic usefulness of futures markets would need to be addressed yet again.

Let us review the Sanders *et al.* (2008) framework, which uses the T index, for analyzing the balance of speculation and hedging in the agricultural markets. Later in this article, we will adapt this framework to analyze the petroleum complex, again using the T index.

Using the data provided by the CFTC's CommodityIndexTraders(CIT)report, Sanders *et al.* (2008) effectively re-characterized agricultural index positions as speculative (rather than as hedges) and examined whether the balance of hedging and

speculation through the first quarter of 2008 had been outside historical norms. If speculative positioning relative to hedging activity was greater than in the past, then one might characterize the speculative activity as potentially excessive.

The authors found the following in their agricultural study: "after adjusting speculative indices for index fund positions, values are within the historical ranges reported in prior research" dating to 1960.

3. Oil Futures Market Study

Arguably, we are now in a position to carry out a similar study for the petroleum complex, given that we have the brand-new Disaggregated Commitments of Traders (DCOT) report. Again, the DCOT divides the large-trader open interest into the following categories: (1) Producer/Merchant/Processor/User, (2) Swap Dealers, (3) Managed Money, and (4) Other Reportables.

The first category is clearly the purest definition of a physical handler of a commodity. Regarding the second and fourth categories, it may be that some "swap dealers" and "other reportables" are commercial hedgers. But if a study of the balance of hedgers and speculators classified the activity of the swap dealers, managed money, and other reportables as entirely speculative, then the study would provide an upper bound on speculation relative to hedging.

Another category of open interest is that of the "non-reportables". The historical literature contains a number of suggestions on how to classify this category, including treating the non-reportables as small speculators or reapportioning their open interest to both commercials and non-commercials, according to the balance of large traders in these two categories. We will include the non-reportables as speculators so as to be consistent with our previous decision, and to provide an upper bound on speculation relative to hedging. In other words, our study may exaggerate the amount of speculation in the US oil futures markets.

Finally, one category of open interest that we will address in future research, but not here, concerns intra-market futures spreading. Before 2006, this author would not have thought to include spreading as a potential source of excessive speculation. This activity had evidently been the private

domain of either highly specialized market-makers, primarily locals on the floors of the open-outcry exchanges, or highly-capitalized storage traders. But one's view on this matter had to change with the 2006 Amaranth debacle. This global hedge fund took on surprisingly large speculative positions in natural gas futures spreads, positions that later led to its demise. The hedge fund's sizing in one particular contract month exceeded the nationwide US residential natural gas consumption for that month, even though the hedge fund had no ability to make or take physical delivery in this commodity.

This paper will use Working's T index to examine only whether *outright* positioning by speculators and index investors in the US oil futures market may have been excessive relative to hedging. As previously noted, we will address the question of speculative spreading as a potential source of excessive speculation in future work.

Sanders *et al.* (2008) define Working's T index as follows:

$$T = 1 + SS / (HL + HS) \text{ if } (HS \geq HL)$$

or

$$T = 1 + SL / (HL + HS) \text{ if } (HL > HS)$$

where open interest held by speculators (non-commercials) and hedgers (commercials) is denoted as follows:

SS = Speculation, Short

HL = Hedging, Long

SL = Speculation, Long

HS = Hedging, Short".

Some explanation is in order to make this statistic (we hope) intuitive. The denominator is the total amount of futures open interest resulting from hedging activity. If the amount of short hedging is greater than the amount of long hedging, speculative longs are needed to balance the market; and, technically, speculative shorts

3. Oil Futures Market Study

are not required by hedgers. Any surplus of speculative short positions would need to be balanced by additional speculative long positions. Technically, the speculative short positions would then be superfluous or perhaps even "excessive". The speculative T index measures the excess of speculative positions beyond what is technically needed to balance commercial needs, and this excess is measured relative to commercial open interest.

Sanders *et al.* (2008) write that: "Working is careful to point out that what may be 'technically an excess of speculation is economically necessary' for a well-functioning market".

For the speculative T index, what value(s) greater than 1 are considered excessive?

The following are average T indices from historical agricultural studies, excerpted from Sanders *et al.* (2008):

1.21 (calculated from 1954-1958 data)
1.22 (calculated from 1950-1965 data)
1.26 to 1.68 (calculated from 1947-1971 data)
1.155 to 1.411 (calculated from 1972-1977 data).

Evidently, the concern in these historical studies was the *inadequacy* of speculation in the agricultural futures markets, so these historical T indices would therefore *not* be considered indicative of excessive speculation.

Let us calculate the T indices for the petroleum complex using the CFTC's new DCOT report.

The DCOT includes data starting on June 13, 2006, for NYMEX contracts. For the ICE Futures Europe WTI crude oil contract, the data does not start until July 28, 2009. As of the writing of this article, the latest update was on October 20, 2009. The following

analysis uses Bloomberg to access the new CFTC data.

We will calculate T indices using the methodology noted above. That is, only the "Producer/Merchant/Processor/User" category will be regarded as hedgers. All other categories in the DCOT will be treated as speculators. Our T indices will therefore be upper bounds on a pure calculation of the T index.

Another consideration is that the DCOT provides both futures-only data and data for futures and options combined. The options data is provided as delta-equivalent futures data. We will calculate and display T indices for both sets of data. That said, we would regard the futures and options data to be more comprehensive than the futures-only data in providing an indication of the balance of speculative and hedging positions.

The first step in calculating the T indices is to determine whether the "Producer/Merchant/Processor/User" category consists predominantly of short positions (rather than long positions). We would expect this since the economic function of commodity futures markets has traditionally been for the hedging of prohibitively expensive inventories.

Indeed, for the NYMEX crude oil, ICE crude oil, NYMEX heating oil, and NYMEX gasoline futures markets, the "producer" category has been net short over the time period of each data set. This result is shown in the graphs below. Please see exhibits 1, 3, 5, and 7.

Therefore, our T indices will be universally calculated as:

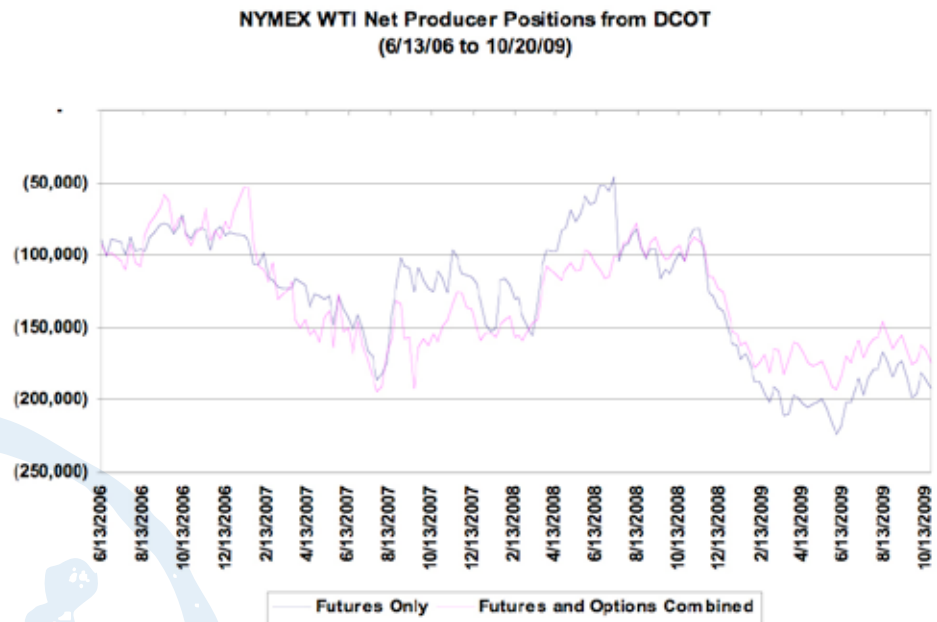
$$T = 1 + SS / (HL + HS).$$

The graphs for the T indices across the US energy futures markets are shown in exhibits 2, 4, 6, and 8.

Exhibits

Exhibit 1

Net Producer/Merchant/Processor/User Positions in the NYMEX WTI Crude Oil Contract from the CFTC's Disaggregated Commitments of Traders Report (in futures contract equivalents)



Legend:

NYMEX: New York Mercantile Exchange

WTI: West Texas Intermediate

DCOT: Disaggregated Commitments of Traders

Exhibit 2

Working T Index for the NYMEX WTI Crude Oil Contract Based on the Classifications in the CFTC's Disaggregated Commitments of Traders Report

Working T Index for NYMEX CL using DCOT
(6/13/06 to 10/20/09)



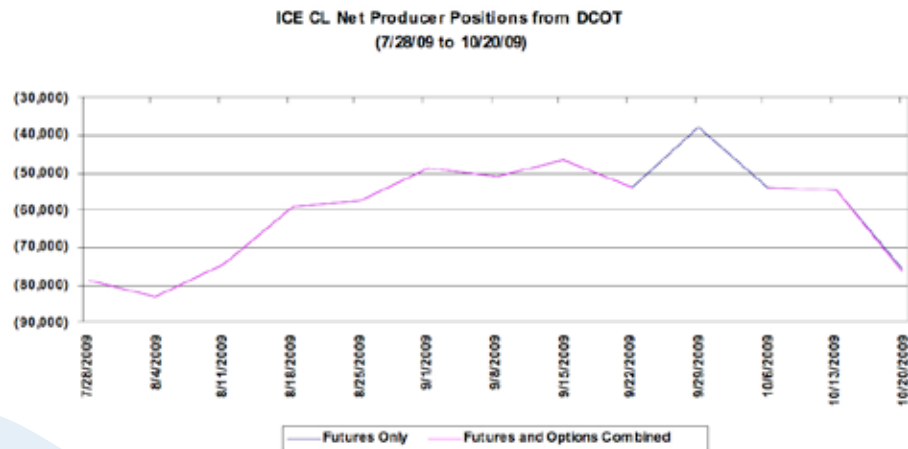
Legend:

CL: Crude oil.

Exhibits

Exhibit 3

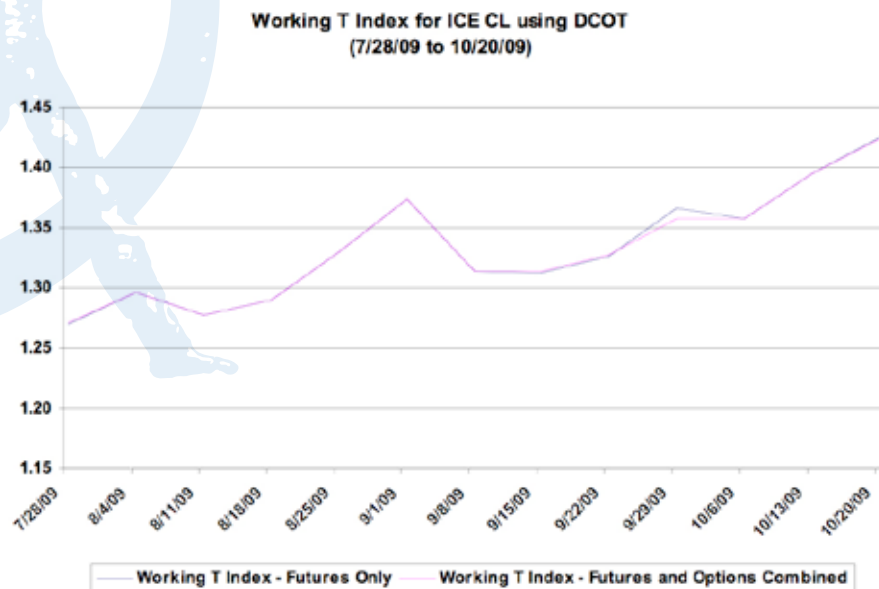
Net Producer/Merchant/Processor/User Positions in the ICE WTI Crude Oil Contract from the CFTC's Disaggregated Commitments of Traders Report (in futures contract equivalents)



Legend:
ICE: IntercontinentalExchange.

Exhibit 4

Working T Index for the ICE WTI Crude Oil Contract Based on the Classifications in the CFTC's Disaggregated Commitments of Traders Report



Exhibits

Exhibit 5

Net Producer/Merchant/Processor/User Positions in the NYMEX Heating Oil Contract from the CFTC's Disaggregated Commitments of Traders Report (in futures contract equivalents)

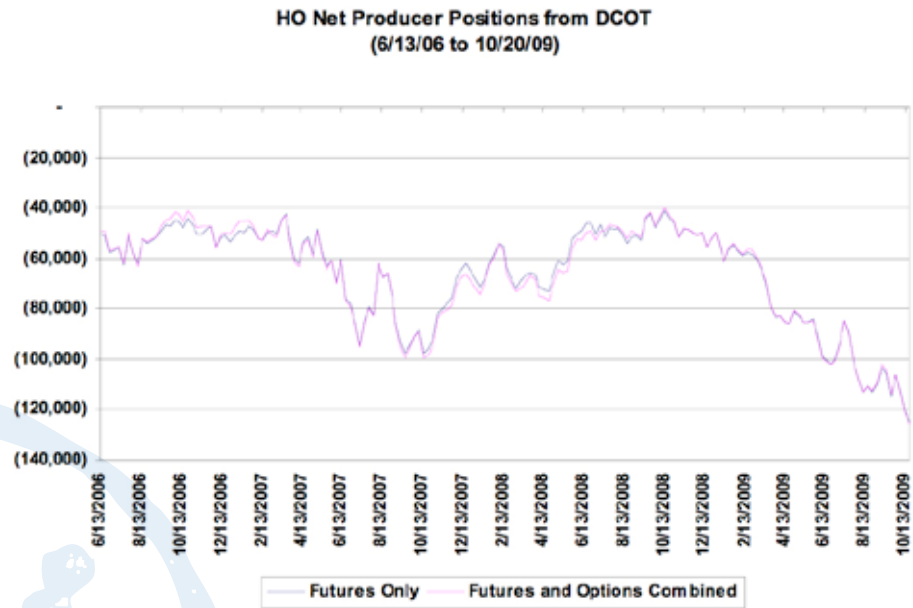
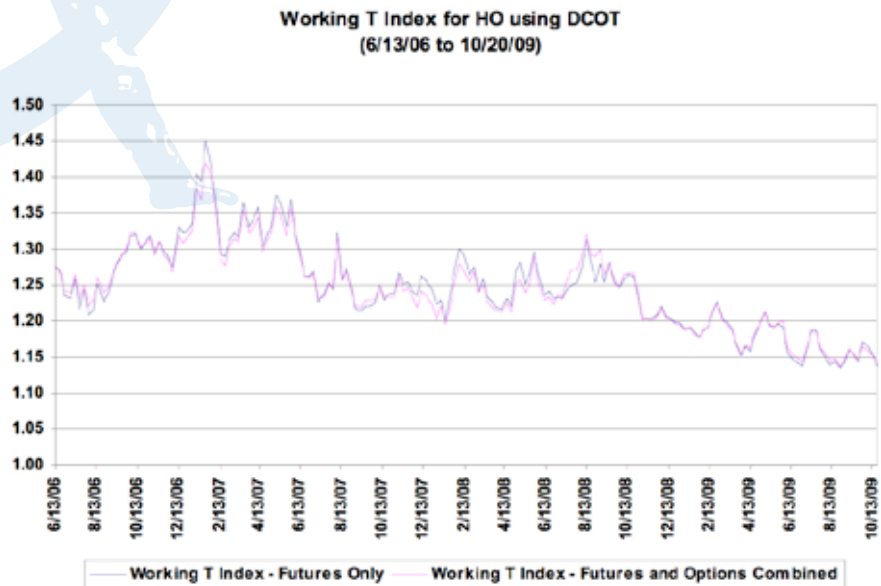


Exhibit 6

Working T Index for the NYMEX Heating Oil Contract Based on the Classifications in the CFTC's Disaggregated Commitments of Traders Report



Exhibits

Exhibit 7

Net Producer/Merchant/Processor/User Positions in the NYMEX Gasoline Contract from the CFTC's Disaggregated Commitments of Traders Report (in futures contract equivalents)

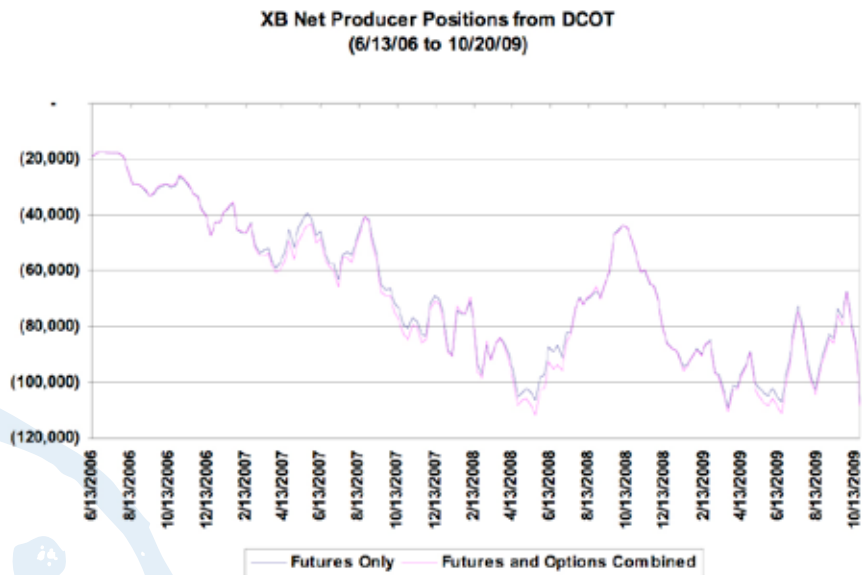
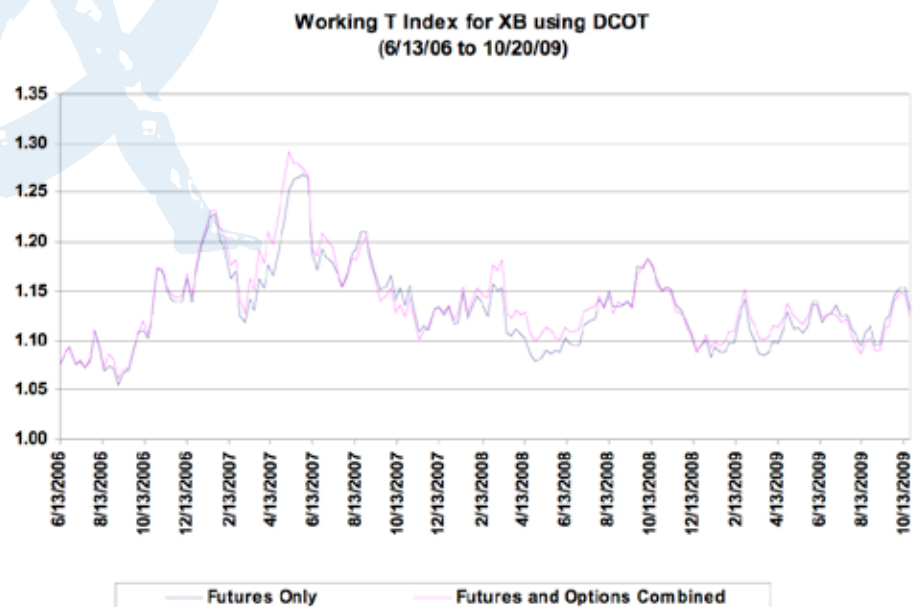


Exhibit 8

Working T Index for the NYMEX Gasoline Contract Based on the Classifications in the CFTC's Disaggregated Commitments of Traders Report



Conclusion

What can we say about the T indices for the petroleum complex?

For the NYMEX heating oil and gasoline futures markets, the T indices are within range of what had not been considered excessive for the agricultural futures markets.

For the very brief time period that we have ICE Futures Europe data, the conclusion for the ICE WTI contract is the same as that for the NYMEX heating oil and gasoline contracts.

As long as one includes options positions, the T indices for the NYMEX oil futures markets are not excessive, again, provided that it is acceptable to use the historical agricultural futures markets as a guide to the adequacy (or excess) of speculation. It is also noteworthy that from the summer of 2007 to the summer of 2008 the NYMEX WTI oil futures market did become more speculative (relative to hedging), even if the data for futures and options combined showed that the peak T index would not be regarded as excessive using our historical benchmarks.

Now, to be circumspect in our conclusions, we must note that if we exclude the option positions in the NYMEX oil data, the futures-only data would potentially indicate excessive speculation in the US oil futures markets.

We must clearly be careful about how strongly we word our conclusions. Within the closed system of the US oil futures and options markets, we find no evidence of excessive speculation, at least not when we use traditional metrics and when we include options positions with outright futures positions.

Also, if excessive speculation can be defined differently than as in our paper, then obviously we cannot say for certain that there has not been excessive speculation in the oil derivatives markets. Nor are our conclusions necessarily incontrovertible, if it is inappropriate to use the historical balance of agricultural speculation-versus-hedging activity to categorize this balance in the oil markets. In addition, we have not examined whether futures-spreading activity over the past three years could have constituted excessive speculation. Finally, we cannot say there has not been excessive speculation in the oil markets through other venues.

But we can say that, based on traditional speculative metrics, the balance of outright speculators in the US oil futures and options markets was not excessive relative to hedging activity in those same markets from June 13, 2006, to October 20, 2009.²

2 - Sanders *et al.* (2008) found evidence that agricultural hedging had *followed* increases in index investment. In Working's framework, futures markets are hedging markets, and therefore speculation should, instead, follow hedging. Our analysis does not address whether the reason that the balance of outright US oil-futures speculation has been normal relative to hedging is because hedging *followed* speculation. This is another issue that we will address in future research.

References

- Commodity Futures Trading Commission. 2009. CFTC to release historical disaggregated COT data. Release: 5737-09 (October 19).
- Sanders, D. R., S. H. Irwin, and R. P. Merrin. 2008. The adequacy of speculation in agricultural futures markets: Too much of a good thing? Marketing and Outlook Research Report 2008-02, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign (June).
- Till, H. 2008. The oil markets: Let the data speak for itself. EDHEC publication (October), http://faculty-research.edhec.com/jsp/fiche_document.jsp?CODE=1228207209363&LANGUE=1



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2007 Publications

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