Executive Summary

An Evaluation of the Influence of Large Reporting Traders on Futures Market Performance

Background: This study was commissioned in May, 2008 by the CME Group for the benefit of a consortium of futures exchanges that included the CME Group, Kansas City Board of Trade, Minneapolis Grain Exchange, New York Mercantile Exchange and the Intercontinental Exchange. Work was completed in October, 2008. The distribution of this study on Informa's website has been authorized by the participating exchanges.

Purpose: The intent of this study was to take a detailed look at the data available from the CFTC on large reporting traders and, in particular, index funds and managed money, to evaluate their impact on market liquidity, volatility, price discovery and convergence.

Data: The CFTC gave the CME Group temporary access to the core data used in this study for the specific and limited purpose of facilitating the accuracy of the study's findings. The CFTC provided the data after its staff determined it to be necessary for the furtherance of the regulatory responsibilities of the CFTC and the participating exchanges The CFTC did not participate in or endorse the design, execution or formulation of the findings of the study. The data provided was a subset of aggregated information regularly published in the weekly *Commitments of Traders* report. The CFTC data did not disclose individual positions or the identities of traders. In addition to the normal categories of commercial and non-commercial traders, the data also identified accounts that were associated primarily with index trading and managed money. The dataset began on January 1, 2005 and ended on June 30, 2008.

General Finding: After a lengthy and detailed analysis of the data provided, Informa found very little evidence that the trader groups of interest, index funds and managed money, were routinely detrimental to any of the studied markets. All of the trader groups displayed instances of non-optimal behavior (including small traders), but none were consistently harmful to the studied markets.

Specific Findings:

Part 1: Participation Levels

- The most consistent pattern across most markets was the well-known building of positions by index traders about 75 days prior to expiration and the rapid liquidation of these positions around 25 days to expiration.
- Market presence by money managers was much more erratic than any of the other trader types.
- Commercial traders entered most markets early and maintained relatively large positions throughout.

Part 2: Liquidity

- Liquidity, measured as the ratio of volume to open interest increased over the study period (2005-2008) in the corn, Chicago wheat, natural gas and crude oil markets
- Liquidity appeared to decline in the Kansas City wheat, Minneapolis wheat and cotton futures. However, abnormal market conditions in early 2008 may have contributed to this result.
- In most markets, gains in liquidity could not be consistently linked to any particular trader group. Weak relationships were detected between market presence of index funds and liquidity in Kansas City wheat and crude oil.

Part 3: Volatility

- For some commodities, the presence of index traders and money managers tends to be associated with higher volatility (corn, wheat, cotton) but for other commodities this association is not as clear (crude oil, natural gas).
- In most of the agricultural markets, the presence of index traders and money managers is somewhat correlated. We suspect this is because markets trended higher during the study period, causing trend-followers (money managers) to adopt the same position as index traders (long).
- No persuasive evidence emerged that would suggest index traders or money managers caused increased volatility.

Part 4: Price Discovery

- A measure of the amount of daily price pressure that each trader group exerted in the market was developed and then categorized as beneficial if the group's pressure moved toward fundamental value or detrimental if the group applied pressure that moved price away from fundamental value.
- All groups exhibited both types of pressure. Index traders tended to have a higher beneficial-to-detrimental ratio, but that may have just been because the market was coincidentally trending in the direction of their preferred position (long).
- Granger causality results held little evidence that any group has a sustained and significant influence on price. This is consistent with previous findings.
- A Vector Autoregression model confirmed the Granger causality results.

Part 5: Convergence

- The price pressure methodology from Part 4 was repeated with a focus on the last 20 trading days.
- No trader group was found to apply pressure in routinely helped or hindered the convergence of the futures to cash.
- In most commodities, prices had a tendency to trend upwards during the final days of a contract's life, suggesting that prices were not consistently inflated above fundamental value.
- Cotton and natural gas exhibited routine over-pricing. However, this could have been a function of the limited study period.