Commodity Futures Trading Commission
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Testimony

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Hearing to Examine Trading on Regulated Exchanges and Exempt Commercial Markets
September 18, 2007

Thank you, members of the Commission. I am pleased to be here today to testify before you on behalf of the Office of the Chief Economist (OCE) and I appreciate the opportunity to discuss issues related to the oversight of trading on Designated Contract Markets (DCMs) and Exempt Commercial Markets (ECMs).

Our office works closely with the Division of Market Oversight (DMO) in providing analysis and advice in matters that relate to the oversight and examination of trading in futures markets. In preparation for today's hearing, OCE staff have collected and analyzed data that may be useful to the Commissioners in evaluating the Commission's oversight of DCMs and ECMs.

As economists, we view the oversight of markets to include many dimensions of the trading process. All successful markets bring participants together, with healthy futures markets allowing for rich interactions between participants aiming to manage risk and participants willing to assume price risks. As my colleague Rick Shilts from DMO has touched upon, futures markets are also characterized by some level of price discovery. For the sake of today's hearing, OCE has examined both of these dimensions from an economic point of view. We have examined the mix of hedgers and speculators in a number of markets with an eye on the whether the existence of ECM trading appears to influence this mix. We have also studied the economic process of price discovery in various markets with an eye toward whether and how much economic price discovery occurs on ECMs.

Market Growth

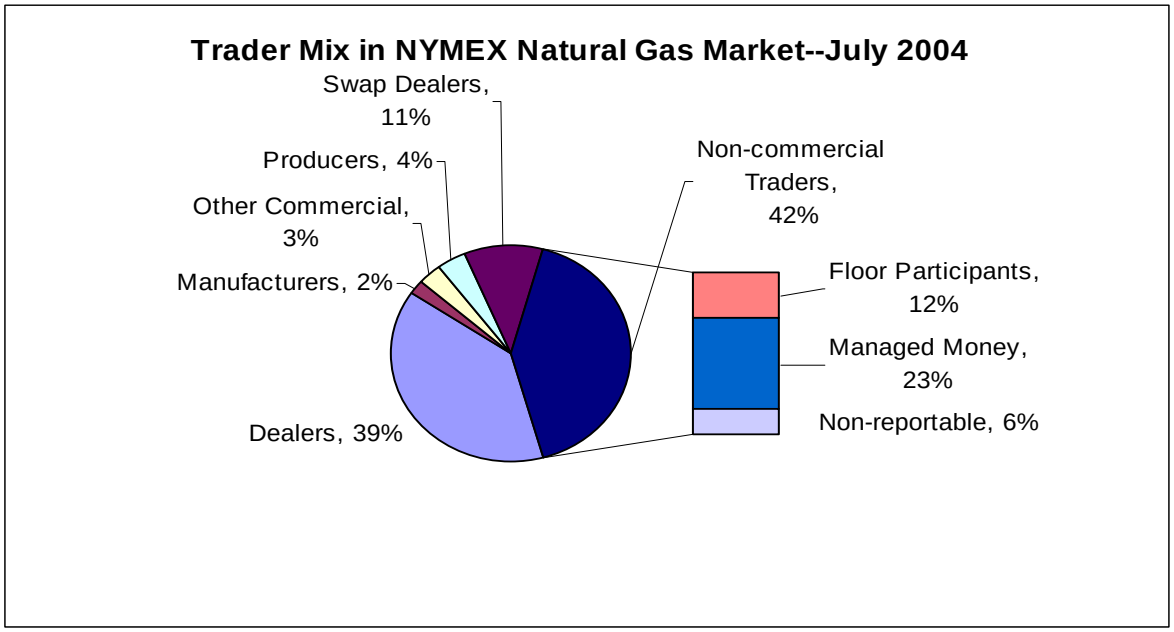
Futures markets of all types have witnessed an explosive growth in trading volume during the past few years. Futures volume has more than quadrupled and the number of actively-traded

contracts has quintupled since 2000. Accompanying this growth in exchange trading has been parallel growth in trading activity on ECMs.

The number of firms filing notifications to operate as ECMs has grown to the current 20 from just three in 2001. The largest ECM (based on trading volume and number of contracts traded) is the IntercontinentalExchange (ICE), which is most active in trading natural gas and electricity futures. Since ICE is the most active of all ECMs, our economic analysis that relies on data focuses largely on ICE and natural gas markets, in particular.

Trading Activity by Investor Type

One aspect of trading that we have examined pertains to the mix of hedgers and speculators in these markets. Through data provided by DCMs via the Large Trader Reporting System, we are able to characterize the mix of traders in these markets over time. We can monitor the mix of traders in DCMs during the time period that ECM trading volume has been growng. Figure 1 below displays the mix of traders in NYMEX natural gas contracts from July 2004 through July 2007, a time frame that coincides with significant growth in ICE natural gas trading.



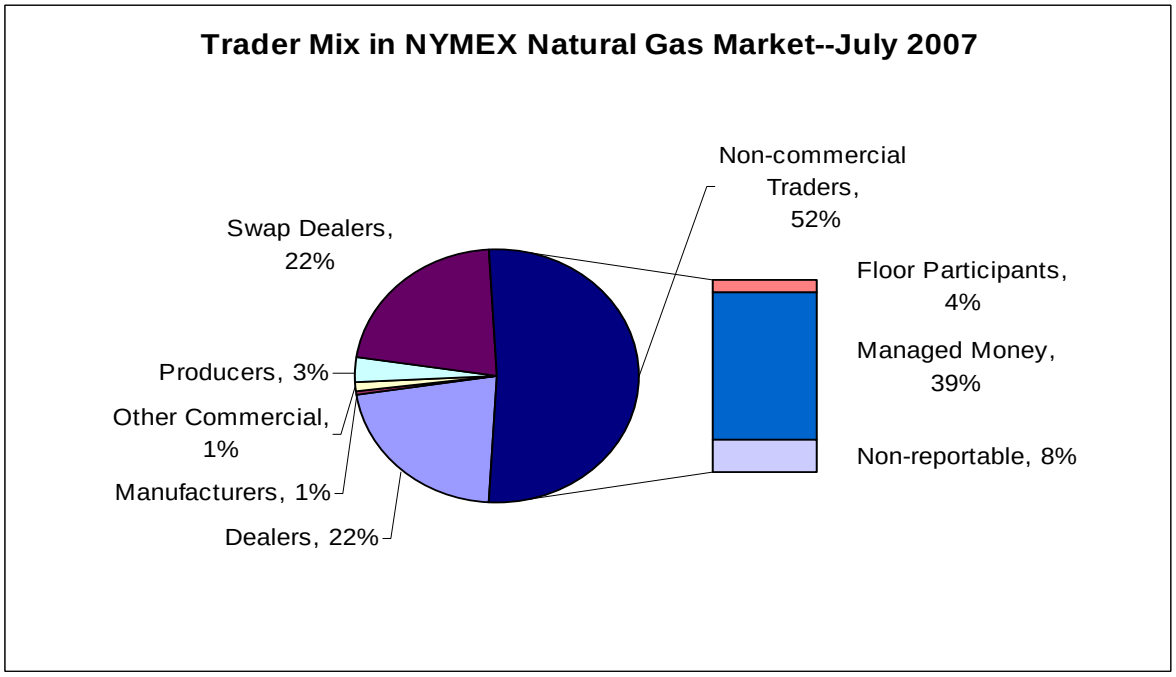


Figure 1—Trader mix in NYMEX Natural Gas contracts

As shown in Figure 1, commodity swap dealers and managed money traders (including hedge funds) have shown the greatest growth in trading natural gas futures on NYMEX. In fact, the growth in non-commercial trading (largely speculative trading) has grown from 42% to 52% of the market from July 2004 to July 2007. Overall, we see that the mix of traders on NYMEX remains relatively stable during a period of dramatic growth in trading on both NYMEX and ICE.

To look specifically at any changes that are occuring in the natural gas market, OCE has compiled similar statistics (see Table A) for active contracts in other markets (corn, heating oil and crude oil).

Table A. Comparison of Changing Market Share by Trader Type for Non-commercial Traders in Natural Gas and Other Markets

	Change in Percentage Market Share of Trading—July 2004-July 2007			
	ECM Competition	Other Markets		
	Natural Gas	Crude Oil	Heating Oil	Corn
Non-commercial Total	+10	+6	+7	+6
Floor Participants	-8	-4	-2	-3
Managed Money	+16	+5	+1	+7
Non-reportable	+2	+5	+9	+2

Table A suggests that the patterns of changes in market share by non-commercial (speculative) traders in natural gas are broadly consistent with the patterns of changes in other markets. Non-commercial trading interest has risen across the board, with both managed money traders and non-reportable trades driving this increase in all markets. In this light, the changing composition of traders in NYMEX natural gas futures trading from 2004-2007 likely reflects, in large part, a market-wide trend toward greater non-commercial trading. In light of this evidence, the existence and growth in trading of ICE natural gas futures does not appear to be a factor in the changing composition of traders in the natural gas market.

An Economist's View of Price Discovery

An economist views price discovery as the process by which new information is impounded into prices. Keeping in mind that this view differs somewhat from the statutory definition of price discovery, I believe our office can provide evidence that can be used to examine similarities and differences between DCMs and ECMs along this dimension. We have, in fact, conducted an economic analysis of economic price discovery for trading in the natural gas futures market—where contracts are concurrently traded both on the NYMEX and ICE. We collected transactions prices from each market from January 3, 2006 through December 31, 2006 and evaluated trading for 20 contracts when trading on each market was appropriately active.

Since an economist thinks of price discovery as the impounding of new information into prices, we examine the timing of price changes on ICE and NYMEX to draw inferences about where information arrives first. If price changes on one venue consistently "lead" those on the other venue, then we may conclude that informed traders prefer trading at the leading exchange. A market that consistently leads is said to be discovering prices. Figure 2 below presents a simplified visual depiction of our economic notion of price discovery. As depicted by the box at the left, during the first part of this time period ICE prices appear to lead NYMEX prices (by at

most a minute) as natural gas prices begin to fall. By contrast, as the box to the right shows, during the later part of this time period NYMEX prices appear to lead ICE prices as natural gas prices fall further. By following price changes in both of these markets over the entire trading day, we can statistically discern which market leads the other on each trading day.

We calculate daily price discovery statistics for each of the 1,265 contract-days during our sample to quantify the degree of price discovery for ICE and NYMEX in natural gas contracts. As might be expected from the example in Figure 2, on some days both markets might lead the other at different times during the day. In addition, on some days we are unable to discern whether either market leads the other. Overall, however, we find that ICE significantly leads NYMEX on 20% of our contract-days. For comparison, NYMEX significantly leads ICE on 63% of our contract-days. These results appear to suggest that, in an economic sense, ICE and NYMEX are both significant price discovery venues for natural gas futures contracts.

Conclusion

On that note, I will turn it over to my colleague from Market Surveillance, John Fenton.

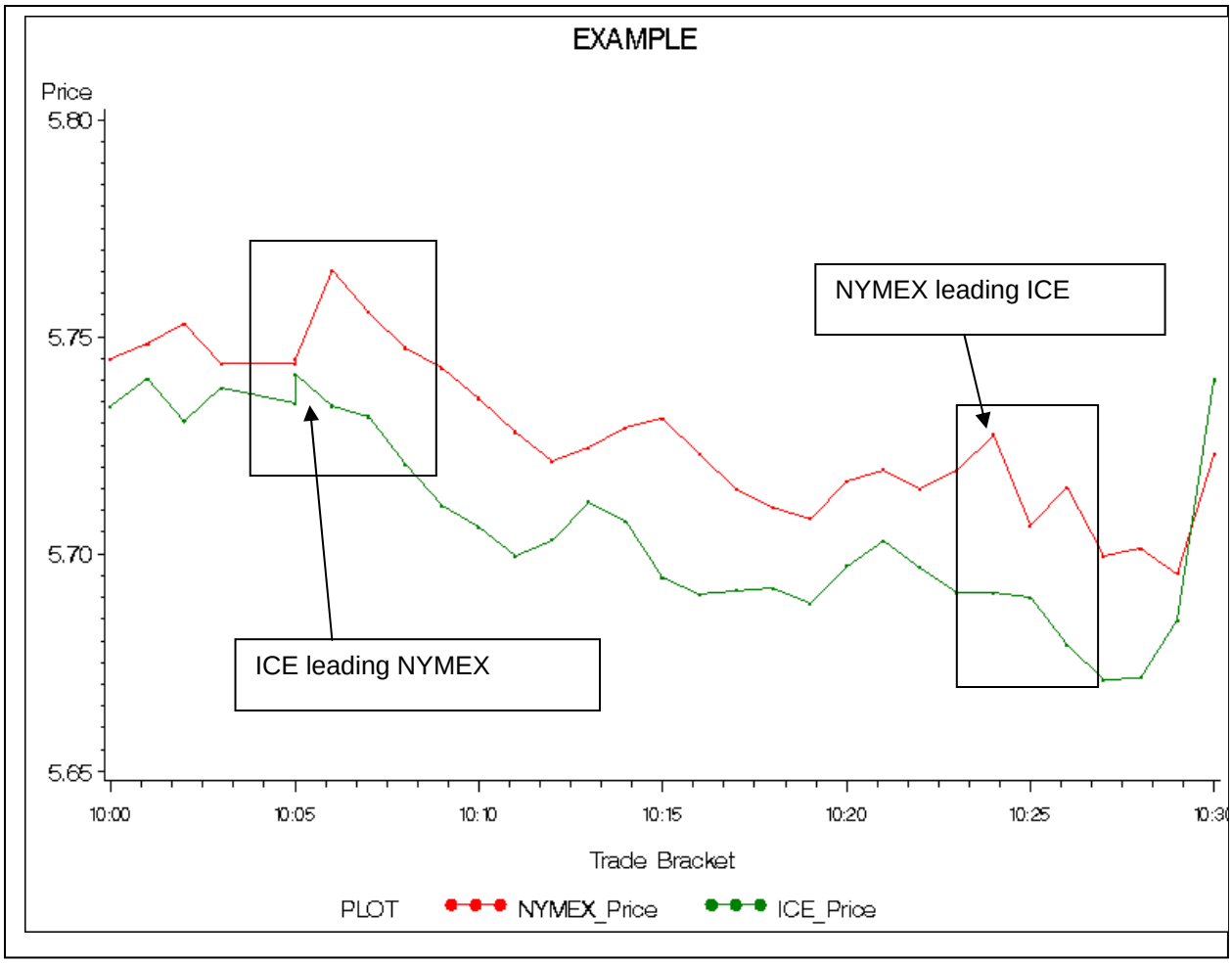


Figure 2. An Example of Price Discovery on NYMEX and ICE