



**REG-MARKETS CENTER**

AEI Center for Regulatory and Market Studies

**Index Manipulation, the CFTC, and the Inanity of *DiPlacido***

**Andrew N. Kleit\***

**Working Paper 09-06**

**February 2009**

---

\*Professor of Energy and Environmental Economics at The Pennsylvania State University.



## REG-MARKETS CENTER

AEI Center for Regulatory and Market Studies

The Reg-Markets Center focuses on understanding and improving regulation, market performance, and government policy. The Center provides analyses of key issues aimed at improving decisions in the public, private and not-for-profit sectors. It builds on the success of the AEI-Brookings Joint Center. The views expressed in this publication are those of the authors.

ROBERT HAHN

*Executive Director*

### COUNCIL OF ACADEMIC ADVISERS

ROBERT E. LITAN, Chairman

*Brookings Institution*

KENNETH J. ARROW

*Stanford University*

ROBERT CRANDALL

*Brookings Institution*

MAUREEN CROPPER

*University of Maryland*

JOHN D. GRAHAM

*Indiana University*

PAUL L. JOSKOW

*Massachusetts Institute  
of Technology*

DONALD KENNEDY

*Stanford University*

MARK MCCLELLAN

*Brookings Institution*

ROGER G. NOLL

*Stanford University*

RICHARD SCHMALENSEE

*Massachusetts Institute  
of Technology*

ROBERT N. STAVINS

*Harvard University*

W. KIP VISCUSI

*Vanderbilt University*

CLIFFORD WINSTON

*Brookings Institution*

Publications can be found at: [www.reg-markets.org](http://www.reg-markets.org)

© 2009 by the author. All rights reserved.

## **Index Manipulation, the CFTC, and the Inanity of *DiPlacido***

### **Abstract**

Commodity markets are designed to enhance the flow of commodities and reduce risks for both buyers and sellers. Unfortunately, these markets can be open to market manipulation, with economic actors functioning to distort markets and gain profits from engaging in activities that distort prices. This issue has increased in prominence over the last several years due to concerns about the manipulation of various energy markets.

The nature of market manipulation, the role of the primary enforcer of such rules—the Commodity Futures Trading Commission (CFTC), and its recent decision in *DiPlacido* are reviewed in this paper. The CFTC decision demonstrates its deficient understanding of both manipulation law and the actual workings of commodity markets. In particular, the CFTC appears to have no ability to discern the difference between pro-competitive trading according to supply-and-demand forces, and the market manipulation that destroys markets. This raises significant questions about whether the CFTC, the designated expert agency in this area, can be trusted to protect commodity markets from manipulation.

Andrew N. Kleit, Ph.D.  
Professor of Energy and Environmental Economics  
The Pennsylvania State University  
[ANK1@psu.edu](mailto:ANK1@psu.edu)

February 2009

I would like to thank James Overdahl for great assistance on earlier drafts on this paper, David Bradford and Richard Gordon for helpful comments, and Lee Carpenter for editorial assistance. Much of the work herein was completed while I was a Visiting Scholar at the Commodity Futures Trading Commission. The views expressed here are not the views of the CFTC.

## **I. Introduction**

Commodity markets are designed to enhance the flow of commodities and reduce risks for both buyers and sellers. Unfortunately, these markets can be open to market manipulation, with economic actors functioning to distort markets and gain profits from engaging in activities that distort prices.

Distinguishing and combating market manipulation is a difficult, perhaps nearly impossible, task. The nature of market manipulation, the role of the primary enforcer of such rules—the Commodity Futures Trading Commission (CFTC), and its recent decision in *DiPlacido*<sup>1</sup> are reviewed in this paper. The CFTC decision demonstrates its deficient understanding of both manipulation law and the actual workings of commodity markets. In particular, it appears to have no ability to discern the difference between pro-competitive trading according to supply-and-demand forces, and the market manipulation that destroys markets. This raises significant questions about whether the CFTC, the designated expert agency in this area, can be trusted to protect commodity markets from manipulation.

Section II presents the basics of market manipulation and a discussion of recent CFTC actions in this area. Section III describes a different variety of manipulation, index manipulation, which was at issue in *DiPlacido*. Section IV presents the actors and events in the litigation. Section V explains the deeply flawed legal standard laid out by the CFTC and the elements missing in that standard. Section VI outlines the main arguments of both the plaintiff, the Division of Enforcement (DOE) of the CFTC, and the defendant *DiPlacido*. Section VII presents the crucial issues in the case of “violating offers.” Section VIII details the events of after-hours trading on July 27, 1998 that shed light on the relevant events in the case. Section IX presents some final words from the participants in the case, while Section X contains concluding thoughts.

## **II. An Introduction to Market Manipulation**

### **A. The Basics of Market Manipulation**

Commodity futures markets exist in many commodities, such as agricultural products, oil, natural gas, and now electricity. In these markets buyers and sellers trade the right to deliver a specified amount of a good at a specified spot at a specified time.

Contracts are standardized and registered with the relevant exchange. The exchange takes responsibility for enforcing contractual provisions. As a result, one party to the transaction is generally indifferent to the identity of the other party. Thus, the

---

<sup>1</sup> *In the Matter of Anthony J. DiPlacido*, Opinion and Order, CFTC Docket No 01-23, November 5, 2008.

rights imbedded in futures contracts are tradable across all parties in the market. Futures markets exist to reduce the risk of market participants or to increase their liquidity.

Parties taking a position to buy a commodity at a certain time are referred to as “longs.” Parties promising to deliver the commodity are referred to as “shorts.” Generally, the number of contracts traded is many times the number of contracts actually delivered. This generates the possibility of a “squeeze” or “corner.” A corner is said to occur when a party buys a large number of long positions and insists upon delivery. This may catch the shorts unaware, as they were expecting to simply cash out their positions (as usually happens), rather than actually deliver the product. In such circumstances, the shorts are willing to pay extra to get out of their contracts, rather than pay the costs of unexpected delivery. The party undertaking the corner exercises market power by buying a large fraction of the long position.

Any market manipulator has the challenge of unloading his excess position without taking too large a loss. The manipulator is now extremely long (or short) in the underlying commodity and must “bury the body” by flattening out their position.<sup>2</sup> For example, assume that a manipulator of the corn market conducts a squeeze by buying a great deal of the corn available for delivery. He may well be able to “squeeze” futures contract holders, but then he must offload his excess corn. This corn will likely be sold soon after the relevant manipulation. Selling so much corn is likely to decrease the price of corn, reducing the manipulator’s profits.

As Fischel and Ross point out,<sup>3</sup> it can become very difficult for a manipulator to profit unless the gains earned by offsetting their futures positions with the shorts exceed the losses sustained while burying the body. In addition, it should be relatively easy for a legal authority to spot the manipulator engaged in such strategies by observing their excess trading. Indeed, Pirrong asserts that “the burying-the-body effect is characteristic of manipulation. The documentation of such an effect makes it possible to distinguish manipulations from competitive outcomes.”<sup>4</sup>

---

<sup>2</sup> See Pirrong, Manipulation of the Commodity Futures Market Delivery Process, *The Journal of Business*, Vol. 66, No. 3 (Jul., 1993), pp. 335-369.

<sup>3</sup> Fischel and Ross, Should the Law Prohibit "Manipulation" in Financial Markets, 105 *Harvard L. Rev.* 503, 542 (1991).

<sup>4</sup> Pirrong, The Self-Regulation of Commodity Exchanges: The Case of Market Manipulation, 38 *J. Law & Econ.* 141,145 (1995).

## B. The Interest in Market Manipulation

The presence of commodity markets has always been attended by market manipulation. Over the last 130 years, there have been cases in copper, coffee, silver, soybeans, egg, grain, and a variety of other products.<sup>5</sup>

Market manipulation has gained great attention over the last 10 years, in large part due to the meltdown of the California electricity market in 2000–2001.<sup>6</sup> In that market, a variety of firms (most famously ENRON) were accused of taking advantage of that state's poorly designed market to extract profits through manipulation. In wake of the California debacle, both the CFTC and the Federal Energy Regulatory Commission have taken a variety of actions against alleged manipulators.

From 2001–2008, the CFTC brought 41 manipulation cases involving energy markets. Most of these cases involved the false reporting of trading prices and volumes, with settled fines ranging from \$2 to \$35 million. Though the complaints about the respondents' motives and strategies are not clear, a possible theory is that the false reporting was designed to alter index prices to the respondent's benefit. For example, the respondent may have owned options whose settlement price was based on reported trading prices. Unfortunately, in many of its orders, the Commission was not clear about which economic theory it was applying.

The CFTC has also brought several more traditional manipulation cases, in which parties traded assets to affect various asset prices. In March 2002, the CFTC settled a manipulation case in which ENRON was accused of "excess purchases" of natural gas at the Henry Hub delivery point. ENRON agreed to pay \$35 million in fines.<sup>7</sup> Though some type of manipulation theory may be imagined in this case, the Commission did not actually outline a theory of ENRON's economic motivations in its order.

In June 2006, the CFTC filed a civil enforcement action in the U.S. District Court for the Northern District of Illinois against BP Petroleum, alleging that BP manipulated the price of February 2004 TET physical propane by, among other things, cornering the market for February 2004 TET physical propane. The CFTC also charged BP with attempting to manipulate the price of April 2003 TET physical propane by attempting to corner the April 2003 TET physical propane market. This matter resulted in a settlement between the CFTC and BP in October 2007.

---

<sup>5</sup> See, for example, Friedman, *Stalking the Squeeze: Understanding Commodities Market Manipulation* 89:1 *Michigan Law Review*, 30 (1990).

<sup>6</sup> See, for example, Considine and Kleit, "Can Electricity Restructuring Survive? Lessons from California and Pennsylvania", pages 39-62 in *Electric Choices: Deregulation and the Future of Electric Power* (Andrew N. Kleit, editor) Rowman and Littlefield, London (2006).

<sup>7</sup> <http://www.cftc.gov/opa/enf04/opa4960-04.htm>,  
<http://www.cftc.gov/opa/enf03/opa4826-03.htm>,  
<http://www.cftc.gov/opa/enf03/opa4840-03.htm>

In July 2007, the CFTC took action against Energy Transfer Partners for using Hurricane Rita as a pretext for going short in natural gas futures based on an index price, and then selling natural gas to drive the index price down. This would appear to be a good example of “index manipulation” (see next section).<sup>8</sup> This matter was settled in March 2008.

In July 2007, the Commission brought a complaint alleging that, for each several expiry days at issue, Amaranth (a hedge fund) acquired more than 3,000 NYMEX natural gas futures contracts in advance of the close of the trading period, which it planned to, and for the most part did, sell during the close. The complaint also alleged that defendants held large short natural gas financially-settled swaps positions, primarily held on the Intercontinental Exchange (ICE). The settlement price of the ICE swaps was based on the NYMEX natural gas futures settlement price determined by trading done during the closing range on expiry day. The complaint alleged that the defendants intended to lower the prices of the NYMEX natural gas futures contracts to benefit their larger swaps positions on ICE and elsewhere.<sup>9</sup>

In May 2008, the CFTC took the unusual step of announcing that it was in the middle of an investigation, six months long at that point, of the potential manipulation of petroleum markets.<sup>10</sup> Then, in a case that appears very much like *DiPlacido*, in July 2008 the CFTC filed charges against Optiver for manipulating NYMEX petroleum markets. According to the CFTC complaint, the respondents held futures positions that were settled on the average closing price during a five-minute period. To affect the closing price, the respondents traded during the close in a manner that ensured an increase in the value of their futures position.<sup>11</sup>

Concerns about high volatility in oil markets caused the U.S. Congress to pass the Energy Independence and Security Act of 2007 (EISA), giving the Federal Trade Commission oversight of oil market manipulation. At this writing the FTC is engaged in rulemaking on enforcement of the EISA.<sup>12</sup>

In passing EISA, Congress was conspicuous in not giving jurisdiction to the CFTC, the historical regulator of these markets. Thus, in the current division of responsibility, the FTC has manipulation authority over wholesale petroleum markets, while the CFTC has jurisdiction over petroleum derivative markets.

---

<sup>8</sup> <http://www.cftc.gov/newsroom/enforcementpressreleases/2007/pr5360-07.html>.

<sup>9</sup> <http://www.cftc.gov/newsroom/enforcementpressreleases/2007/pr5359-07.html>.

<sup>10</sup> Mark Huffman, *Feds Probing Possible Oil Market Manipulation*, Consumer Affairs.com May 30, 2008,

[http://www.consumeraffairs.com/news04/2008/05/gas\\_prices246.html](http://www.consumeraffairs.com/news04/2008/05/gas_prices246.html).

<sup>11</sup> <http://www.cftc.gov/newsroom/enforcementpressreleases/2008/pr5521-08.html>.

<sup>12</sup> See <http://www.ftc.gov/ftc/oilgas/rules.htm>

With the current interest in market manipulation, *DiPlacido* stands as an important case. It is the only recent example of a complete litigated decision by the CFTC on market manipulation. As such, it is an important window into the CFTC's ability to prosecute and determine the outcome of such matters by protecting the proper functions of commodity markets from manipulation.

### **III. Index Manipulation**

#### **A. What is Index Manipulation?**

One important tool in risk management is options. For example, for a certain price, one can buy the right (but not the obligation) to purchase a stock at a certain price. This is referred to as a "call option." Thus, an economic actor might pay \$4 for the right to purchase a share of Microsoft stock at \$20 by three months from today. Upon expiration three months from today, if the price of a share of Microsoft is less than \$20, then our actor will not exercise his call option, and gain 0. If, however, the price of Microsoft stock is greater than \$20, our actor can purchase the stock at a price of \$20 and gain money (minus, of course, the \$4 initial investment).

It turns out, however, that actors who purchase options are generally not interested in actually purchasing the "underlying" (here, a share of Microsoft). So options contracts are often "cash settled"—rather than purchasing a share of Microsoft stock, our actor simply receives the difference between the closing price of Microsoft stock and the "strike price" of the option (here, \$20 if that difference is positive). Otherwise, our actor receives 0. This makes purchasing and profiting from options much easier, especially for products that are difficult to take delivery in (e.g., natural gas, electricity).

Cash settlement, however, leads to another problem. The proper "closing" price is usually not very clear. At the end of a trading day, trading can become rather hectic, with prices fluctuating in some range. To address this problem, settlement prices are usually set up to be the average price of the commodity traded over a specific period of time. For example, in *DiPlacido*, the settlement price was the average transaction price over the last two minutes of trading.

Unfortunately, many commodity markets are subject to what is referred to as "price impacts" or "price slippage."<sup>13</sup> The number of buyers and sellers available at any particular time in many markets is limited. What this means is that if a purchaser wants to buy a large amount of the commodity in a very short period of time, the price is likely to "slip." For buyers, their actions to buy a large amount of a commodity will likely drive up the price of that commodity in the short run. Similarly, a seller of large amounts of a commodity can drive the price down.

---

<sup>13</sup> See, for example, Larry Harris, *Trading and Exchanges* (2003) at 72.

This sets the stage for index manipulation. Assume that our actor owns a very large amount of Microsoft call options with a strike price of \$20. If, in the closing period, the actor can drive the price of Microsoft up (assuming that the price of Microsoft is already above \$20 and therefore “in the money”), that actor can make more money on his options.

For example, assume that our actor has 1,000 options with a strike price of \$20. Assume that the market price of Microsoft is \$21. Assume that if our actor purchases 500 shares of Microsoft, his purchase will raise the price of Microsoft to \$24. (To make our lives easier, assume that the average cost of purchasing Microsoft is halfway between \$21 and \$24, or \$22.50.) Also assume that when the settlement period is over (say, the next trading day), the price of Microsoft will fall back to \$21. This is what is referred to above in section II, part A as “burying the body.”

In this instance, without manipulation, our actor will make \$21–\$20, or \$1 per option, for a total of \$1,000.

But with manipulation, our actor will make:

Value of Options – Costs of Buying Stock During the Settlement Period +  
Revenues from Selling Stock after the Settlement Period =

$$1000 * (\$24 - \$21) - 500 * \$22.50 + 500 * \$21 = \\ \$3000 - \$11,250 + 10,500 = \$2250.$$

In this theoretical case, our option holder could make \$2,250–\$1,000=\$1,250 by manipulating the closing price for Microsoft. Of course, such actions distort the closing price for all investors who rely on that price, harming the risk management value of the option.

A similar strategy is available for put options. Put options give the owner the right, but not the obligation, to force another actor to purchase the stock at the contracted-for strike price. For example, our economic actor could own 1,000 put options with a strike price of \$20, expiring on a certain date. If the price of Microsoft is below that price, the options are “in the money” and valuable. The option holder will exercise his option. If, on the other hand, the price of Microsoft is above \$20, the put option is out of the money, does not have value, and will not be exercised.

For the holder of the put option, index manipulation is simply the reverse of index manipulation for the holder of the call option. Our hypothesized manipulator simply sells a good deal of the underlying asset, driving the price down. The put options in the actor’s possession now have greater value. Of course, the manipulator loses money because he is now “short” Microsoft stock. To cover his short position, he is likely to have to purchase Microsoft stock in the near future—another version of “burying the body.”

This theory has some important conditions that should be observable to the investigator. First, the alleged manipulator must hold in-the-money call options. Second, the number of futures contracts bought will generally be far less than the number of options owned. Third, the manipulator may have owned many options, but few or no underlying futures contracts prior to the manipulation event. Finally, the manipulation strategy should raise not only the price the manipulator pays for the contract, but also the price paid by subsequent purchasers (the “leverage” effect). This is the theory presented by the Division of Enforcement in *DiPlacido*. (Section V will present the defendant’s theory of the case.)

#### **IV. The *DiPlacido* Matter**

The case involves trading by Anthony DiPlacido on behalf of Avista Energy Incorporated. Allegedly, DiPlacido and Avista, working together, manipulated the NYMEX contracts on electricity for the California-Oregon border (COB) and Palo Verde, Arizona (PV). (The California – Oregon border and Palo Verde are the main electricity hubs for power imports to California.) The alleged manipulation took place on five occasions in 1998—April 24, May 22, July 27, and August 25—for the COB contracts, and July 27 for PV contracts.

As a self-regulatory agency, NYMEX brought a complaint against DiPlacido and Avista. They were found to have traded “non-competitively”—that is, after exchange trading on a particular contract had ended for the day. The NYMEX fined DiPlacido \$50,000 and suspended him for two months for the non-competitive trade and false reporting charges (CFTC slip op., fn. 4.). The NYMEX dismissed claims of manipulation. (The NYMEX does not appear to have investigated claims of “violating offers,” as discussed below.)

Once the NYMEX had reached its decision, the CFTC began its prosecution. In August 2001, DiPlacido was charged with aiding manipulation conducted by Robert Kristufek, an energy trader at Avista, and William Taylor, a vice-president at Avista, for the same events examined by the NYME review panel. Avista settled with the Commission, leaving DiPlacido to face the CFTC alone in the CFTC’s own administrative courts.<sup>14</sup>

After conducting an oral hearing and reviewing the record created by the parties, an ALJ issued his Initial Decision in September 2004. The final decision was issued in October 2008. Both the ALJ and the Commission found DiPlacido liable for manipulating the markets in question on four of the five days in question. In addition, the

---

<sup>14</sup> The Commission entered into settlements with Kristufek and Taylor, on September 12, 2002, and September 30, 2003, respectively. See *In re DiPlacido*, et al. (2002-2003 Transfer Binder) Comm. Fut. L. Rep. (CCH) ~ 29,153 (CFTC Sept. 12, 2002) and *In re William H. Taylor*, (2003-2004 Transfer Binder) Comm. Fut. L. Rep. (CCH) ~ 29,594 (CFTC Sept. 30, 2003).

ALJ found DiPlacido liable for manipulation on August 25, with that ruling later overturned by the Commission.

As an administrative agency, the CFTC is both a prosecutor and a court. As such, it often gains deference from the courts due to its perceived “special competence.”<sup>15</sup> Thus, it is felt (or perhaps hoped) that the CFTC, throughout its existence, has gained special knowledge of the circumstances in its jurisdictional area, knowledge that is not available to a typical court.

## **V. The Legal Standard Laid out by the CFTC, and the Flaws Therein**

### **A. Introduction to the Four-Part Test**

According to the Commission (slip. op. 42), the Commission uses the following four-part test in determining whether a respondent has manipulated commodity prices:<sup>16</sup>

- (1) The accused had the ability to influence market prices;
- (2) The accused specifically intended to do so;
- (3) The “artificial” prices existed; and
- (4) The accused caused the artificial prices.

In practice, however, this four-part test reduces to a two-part test. Parts (2)–(4) were reduced to one test in the CFTC decision. Thus, this section begins with the ability to influence price. As the discussion below indicates, however, the ability to influence market prices is common.

### **B. The Difficulties with the Ability to Influence Market Price**

The Commission found (slip op. at 43-44) that because DiPlacido was trading a large amount of the relevant product, he had the ability to influence the market price. This was no doubt correct. Such a legal test, however, is deeply problematic.

The Commission could have found the problem with its market price test by looking no further than the NYMEX panel’s decision on *DiPlacido*. NYMEX’s argument for not finding market manipulation was that in previous manipulation cases dealing largely with “squeezes” and “corners,” plaintiffs needed to show that the defendant had market power in the relevant market. With a settlement price index manipulation case, however, the relevant economic theory implies that market power is not necessary. Rather, one needs to create a “leverage” effect by using up the available liquidity during the settlement period.

---

<sup>15</sup> See, for example, *Elliott v. CFTC*, 202 F.3d 926 (7<sup>th</sup> Circuit, 2000).

<sup>16</sup> *In re Cox*, (1986-1987 Transfer Binder) Comm. Fut. L. Rep. (CCH) ii 23,786 at 34,061 (CFTC July 15, 1987); *In re Indiana Farm Bureau Cooperative Ass’n* (1982- 1984 Transfer Binder) Comm. Fut. L. Rep. (CCH) ii 21,796 at 27,285 (CFTC Dec. 17, 1982); *Frey v. CFTC*, 931 F.2d 1171,1175 (7<sup>th</sup> Cir. 1991).

As NYMEX points out, however, abandoning the market power argument means a large number of market participants have the ability to create an “artificial price.” As the NYMEX panel states (at 20) with reference to *Lever v. Gelderman* (1990-92 CCH Paragraph 24,980 at 37,589), “. . .in a market with thin trading volume the trading of any market participant has the ability to move or affect price; this is not necessarily market manipulation.” The NYMEX decision is remarkably consistent with the discussion of “price impact” cited above in Harris, *supra*. Thus, the legal test for manipulation of ability to create an artificial price becomes non-informative.

### C. Showing an Artificial Price

As discussed above, a necessary condition for showing manipulation is to demonstrate that the relevant market price is “artificial.” The basic problem with this condition is the lack of an accepted statistical method for showing an artificial price.

A good example occurred at trial, where the DOE presented a statement from its expert, Professor Hendrik Bessembinder of the University of Utah. Bessembinder analyzed the changes in the close price on settlement days relative to the closing price the day before the settlement date and the opening price the day after the settlement date.<sup>17</sup> He showed that each of the settlement day closing prices were “statistically unusual” with respect to the previous day’s close and the next day’s opening. Bessembinder then asserted that this result showed that the relevant prices are artificial.

The problem with Bessembinder’s analysis is that he was unable to eliminate other theories for why closing prices on settlement days might be unusual. The most obvious theory is that Bessembinder found unusual price movements on settlement days because settlement days differ from other days. Clearly, settlement days see more trading than other days. In contrast, non-settlement days may have less trading and therefore more “stale” prices.

Given the problems with Bessembinder’s approach, one might well ask how an artificial price can be shown. The answer, in a wide range of manipulation cases, is unclear. In an aptly named and influential law review article, a former Chief Counsel of the CFTC’s Enforcement Division put the issue this way:<sup>18</sup>

Each type of manipulation, whether market power, rumor, or rigged trading practice, involves a common goal. The trader is seeking to create an artificial price by which he will profit. But here lies the rub: it is virtually impossible to determine what constitutes an artificial price. Prices fluctuate constantly in the futures markets. Indeed, futures contracts are selected for trading on commodities that have volatile prices. There is,

---

<sup>17</sup> It would appear that each underlying contract market stayed open one day after the close of the relevant options market.

<sup>18</sup> J.W. Marham, “Manipulation of Commodity Futures Prices -- The Unprosecutable Crime,” 8 Yale J. on Reg. 281, 284 (1991).

therefore, no level of price that can be said to be a typical benchmark, non-artificial or "true" price. Instead, market conditions, which vary daily, or even by the minute, will determine the actual economic price of the commodity. Consequently, the determination of the "true" economic price will turn on an after-the-fact economic analysis of the price a willing buyer and a willing seller would have paid in the absence of the manipulation. But this economic analysis is so complicated and affected by so many factors that it is often impossible to determine what the "true" price was.

In other words, prices fluctuate for all types of reasons that are very difficult to separate out in a legal proceeding. This type of problem is why in general manipulation charges are very hard to sustain and why litigation often focuses on attempted manipulation, which does not require the showing of an artificial price.

Citing many of these arguments, the CFTC (slip op. at 52) rejected the DOE and the ALJ's arguments for an artificial price. The Commission, however, then moved smartly to devise another test for an artificial price, out of whole cloth and completely without precedent.

#### **D. *Henner* and the CFTC's Improper Test for Artificial Price**

At this point, the casual observer might think that anyone seeking to find *DiPlacido* guilty would face a logical conundrum. The CFTC, however, was cleverer than that. To show an artificial price, it dredged up an ancient case, *In re Henner*, 30 Agric. Dec. 1151 (1971), a matter brought by the Commission's predecessor agency, the Commodity Exchange Authority, which was then a part of the U.S. Department of Agriculture. The choice of *Henner* as precedent can be considered somewhat surprising. Indeed, as the CFTC pointed out (fn 6), "*Henner* has been mentioned by the Commission on occasion, but never exhaustively discussed in an adjudicated decision."

To understand the CFTC's reasoning here, one has to understand the concept of "violating bids." In a trading pit, traders are required to take bids and offers in the order of their attractiveness. For example, a trader selling contracts is required to take the lowest offers first, followed by higher offers. Thus, if one is buying Microsoft stock in a trading pit, one takes the offers to sell at \$21 per share before the offers to sell at \$21.25, and so on. Similar rules apply when a trader is selling contracts.

While violating bids is apparently technically illegal, I was unable to find any instances of the CFTC prosecuting a trader for such violations. Indeed, a LEXIS search of the terms "violating offers" and "violating bids" revealed no instances of those terms in a Federal or State judicial case involving market manipulation. There appear to be three reasons for this. First, the harm from violating bids is not obvious. Some bids are temporarily overlooked, but those offers still remain on the floor and in a position to affect market prices. Second, other traders can punish the bid violator by refusing to

trade with them in future trades. Third, commodity exchanges, which are self-regulatory organizations, can punish violators by themselves.

Despite all this, and without precedent, the CFTC created a *per se* rule equating violating offers with market manipulation. To support this, the CFTC, in quoting *Henner*, states: “It is not necessary to determine the respondent's precise motive. If he intentionally traded in a manner to distort the closing price, that is manipulation.”

In fact, *Henner* is far more equivocal. According to the decision:

Considering all of the circumstances, the most likely motive for the respondent wanting to raise the closing price of November shell egg futures on June 25 the maximum amount permitted by the Exchange rules was to attract additional buying power, which hopefully would have resulted in a sustained price advance. However, it is not necessary to determine the respondent's precise motive. If he intentionally traded in a manner to distort the closing price, that is manipulation [citation omitted]. However, consideration of whether the respondent had a motive for wanting to distort the closing price is one of the circumstances to be considered, together with all of the facts in the case, in determining the respondent's intent.

What the CFTC missed is that the Hearing Examiner was able to support the contention that *Henner* had deliberately increased the closing price of the commodity, by thoroughly showing that *Henner* had a strong incentive to do so.

Similarly, in support of its blanket rule equating bid violation with manipulation, the CFTC (slip op. at 45) asserted that: “In *Henner*, the Judicial Officer inferred manipulative intent from the fact that *Henner* ‘purposely paid more than he would have had to pay’ in order to create an artificially high closing price” (citing 30 Agric. Dec. at 1174). In fact, what *Henner* stated at that point was:

The only reasonable influence that can be drawn by the Judicial Officer from the facts is that the respondent, by his trading activities on June 25, 1968, purposely paid more than he would have had to pay for November shell egg futures in order to cause the closing price on the Exchange to be two cents more than the previous day's settlement price. The respondent succeeded in creating an artificially high closing price for November shell egg.

Note two important distinctions. First, the Judicial Officer stated that he drew the “only reasonable inference” available from his extensive analysis. Second, the Judicial Officer stated that *Henner* paid more than he had to in order to drive up the closing price. Driving up the closing price was simple in the market *Henner* manipulated, as explained in part E below. As shown in section VII, it was not so simple for *DiPlacido*.

To create a rule that equates violating bids with manipulation is truly astonishing. It stands counter to what the Examiner in *Henner* was trying to do and has no true precedent.

### **E. Summarizing the Four-Part Test**

At this point, the CFTC's four-part test for manipulation can be summarized. It is clear that the first three points of that test are deeply flawed.

First, did the accused have the ability to influence market prices? Yes, but many agents, however, have this ability. Thus, this prong does not differentiate between agents and is therefore non-informative.

Second, did the accused specifically intend to influence price? Here it is unclear what "intended" means. Was the accused trying to change the price, or was the accused trying to do something else that had the side effect of changing the prices?

Third, did an "artificial" price exist? As discussed above, there is a dearth of approaches for determining whether or not an "artificial" price actually occurs.

Perhaps even more importantly, the CFTC's four-part test does not allow for the obvious efficiency defense. As discussed above, the purpose of commodity markets is to allow for hedging. So a crucial question becomes whether or not a hedger would become liable under the CFTC's test.

Consider point 1): Can the hedger influence the market? Certainly, since it has already been shown that a large number of parties can influence the market price. 2) Did the hedger intend to influence the price? If the hedger intended to flatten out a large position, the hedger would certainly know that doing so would influence the market price. So the answer to this question is clearly yes. 3) Did an artificial price exist? Since the hedger's actions would have changed the price, this would fit any existing meaning of the word "artificial" in this context. Finally, did the hedger cause the "artificial" price? Again, the answer is certainly yes.

Thus, the CFTC's four-part test is deeply flawed. Three of its prongs cannot be used to differentiate among firms. Even if such differentiation could be made, the test still cannot differentiate between market manipulation (which the CFTC should seek to discourage) and hedging (which the CFTC should seek to encourage).

## F. What is Missing from the CFTC's Test, and the Role Outlined by Other Courts

What is missing from the CFTC's list is simple – incentive. Does the alleged manipulator have the incentive to manipulate price? As discussed above, this can be deduced in a straightforward manner in the case of index manipulation cases by looking at underlying positions and where “the body was buried.”

Indeed, another great irony is that the CFTC cited a number of cases that discussed why the circumstances of a case, including motive, are important in a market manipulation proceeding.

For example, the CFTC (slip. Op 41) cites the Eighth Circuit in *Cargill v. Hardin*, 452 F.2d 1154, 1163 (1971):<sup>19</sup>

We think the test of manipulation must largely be a practical one if the purposes of the Commodity Exchange Act are to be accomplished. The methods and techniques of manipulation are limited only by the ingenuity of man. The aim must be therefore to discover whether conduct has been intentionally engaged in which has resulted in a price which does not reflect basic forces of supply and demand.

It is this task of discovery that the CFTC avoided by its use of out-of-context statements in *Henner*.

Another great irony here is that the *Henner* decision follows completely the discovery process explained by other courts. The Judicial Examiner explained quite carefully how *Henner* was long in the relevant quantity and how that position motivated his actions.

In *Henner*, the defendant was 59 contracts long in egg futures (*Henner* at 1175). The settlement price was set equal to the unweighted average of the high and low prices during the settlement period. Thus, the defendant could easily alter the closing price. According to the decision, *Henner* was able to manipulate the settlement price by buying eight contracts at the very last seconds of the egg-futures settlement period. This action raised the settlement price from about 40.25 cents to 41 cents per dozen eggs (*Henner* at 1180). There was no accusation of violating bids in this matter. Indeed, the method used—posting bids on a blackboard rather than using pit trading—precluded bids from being violated.

The examiner carefully explained how *Henner* raised the price of the relevant futures to spark interest by other traders in the commodity, increasing the value of

---

<sup>19</sup> Similarly, the Commission states (slip. Op. at 45) that “Intent may "be inferred from the objective facts and may, of course, be inferred by a person's actions and the totality of the circumstances.”” (citing *In re Hohenberg Brothers*, (1975-1977 Transfer Binder) Comm. Fut. L. Rep. (CCH) 20,271 at 21,477 (CFTC Feb. 18, 1977)).

Henner's long position. Finally, the Judicial Examiner discussed how Henner "buried the body" (though not using such colorful language) by selling his excess contracts to another trader the next trading day.

The CFTC would be wise not only to cite *Henner*, but to use it as a model in the conduct of investigations of alleged manipulations. It would appear that in the 37 years from *Henner* to *DiPlacido*, the CFTC's analytical ability in this area has regressed.

## **VI. The Dueling Theories**

The DOE, offering the index manipulation theory described above in section III-A. DOE, argued that DiPlacido, abetting Avista's desires, engaged in large-scale buying (and sometimes selling) of contracts to manipulate closing prices to enhance the value of Avista's underlying position.

Through his expert economist Professor Albert Kyle of the University of Maryland, the defendant offered a theory of market purchases that is designed to allow the relevant party to hedge or "unwind" his position. Assume, for example, that a speculator is net short N contracts in his futures contract position. She then buys N in-the-money contract options to hedge her risk, which is of course a primary function of call options. (Thus, this theory explains why the party in question holds the options to begin with.)

As the option nears expiration, a speculator who has hedged still has a month left of financial exposure in his remaining futures position. However, her ability to hedge that risk is disappearing as the expiration date nears. Recall that, unlike an option calling for physical delivery in the COB and PV markets, the speculator receives cash for her option position. Thus, the expiration marks the expiration of the speculator's hedging ability. Therefore, the speculator may want to exit (perhaps) her entire position.

There is nothing economically unusual about the defendant's theory. Indeed, it is simply a restatement of the basic purpose of option markets. As Kolb and Overdahl put in their text on financial derivatives, "[o]ne of the most important applications of options is as a hedging vehicle."<sup>20</sup> Thus, the existence of an option market on the relevant futures may imply that many parties besides Avista were using these options to hedge risk.

As with manipulation theory, hedging theory requires that the party in question hold in-the-money options. In contrast to manipulation theory, however, hedging theory requires that the relevant party hold a previous short position in the underlying futures contract. It also implies that the relevant party is purchasing a number of futures contracts that are similar in magnitude to the number of options it holds. Finally, it implies that the purchaser of futures contracts is indeed a speculator (though it is not clear that this condition is useful, as anyone can be a speculator).

---

<sup>20</sup> Kolb and Overdahl, *Financial Derivatives* (2003, 3<sup>rd</sup> edition) 142.

The conditions for manipulation and hedging are laid out in Table 1.

**Table 1.**  
**Factual Similarities and**  
**Differences between Manipulation and Hedging Theories**

<b>Theory</b>	<b>Manipulation</b>	<b>Hedging</b>
Options	Holds in-the-money options	Holds in-the-money options
Previous positions in underlying futures contracts	Small or none	Short equal (or near) the number of options held
Number of futures contracts acquired	Few in number relative to options position	Similar amount to the number of options held
Identity of economic actor	Unclear	Speculator needing to hedge

Note two important empirical differences between the theories. Under hedging theory, the party in question holds a short position in the underlying futures contract (nearly) equal to the number of in-the-money options he holds, and he offsets most of those short futures contracts by going long near the time of the options' expiration. These conditions do not apply to the manipulator.

Thus, there is clear factual guidance on how to distinguish these two theories, with the relevant evidence being perhaps relatively easy to gather. Unfortunately, little of these data were presented at trial.

**B. Available Evidence, or Lack Thereof, on Avista’s Trading Strategy and Where Did Avista “Bury the Body”?**

The trial record does contain some evidence of the futures trades made by Avista on the relevant settlement days. While the data are scattered in a number of places in the record, they are well summarized by DOE expert Bessembinder (statement at 30).

**Table 2.  
Avista Trades on Market Close  
(From Bessembinder’s Statement)**

<b>Event</b>	<b>Total Market Volume</b>	<b>Bought by DiPlacido for Avista</b>	<b>Sold by DiPlacido for Avista</b>	<b>Bought by Other Traders for Avista</b>	<b>Sold by Other Traders for Avista</b>	<b>Avista Total (and Market %)</b>
April 24 PV Close	211	0	65	0	20	85 (40.3%)
May 22 PV Close	286	0	150	0	0	150 (60.5%)
July 27 PV Close	342	107 <sup>21</sup>	0	100	0	207 (60.5%)
July 27 COB Close	524	182	0	0	0	182 (34.7%)
Aug 25 PV Close	265	75	0	0	0	75 (28.4%)

Clearly, Avista’s trading was a large part of the relevant markets. DOE makes this a significant part of its case, pointing out that the markets were thinly traded relative to Avista’s purchases. Thus, even though DOE presents no assertion and does not show that Avista had market power, DOE argues that Avista had the ability to create an artificial price.

A showing that Avista had the ability to create an artificial price, however, is not particularly informative. As discussed above (see section IV-B), once the market power standard is removed, any market participant can be shown to have the ability to change the market price.

In addition, the numbers in Table 2 are actually somewhat supportive of hedging theory. Recall that the manipulation theory relies on a “leverage” or “cascade” effect, in which the purchases by Avista raise the price paid by other market participants. The fewer “other” participants there are, the lower the leverage effect.

---

<sup>21</sup> Evidence discussed in section VIII indicates that DiPlacido was unable to acquire 68 contracts that he had been instructed to buy during the settlement period.

Knowing Avista's contract positions prior to the relevant settlement days would appear to be an important element of any manipulation case. Unfortunately, despite its obvious relevance, there is only limited evidence in the trial record of what Avista's futures and option contract position was prior to entering into trading on the relevant settlement days. Most of the evidence on Avista's strategy and position comes from the testimony of Avista's Robert Kristufek.<sup>22</sup> Before giving his testimony Kristufek reached a settlement agreement with DOE on his actions in the incidents in question. At trial, Kristufek was a DOE witness.

Kristufek provided little information on Avista's actual positions. He (tr. at 255) indicated that on July 27 Avista was "long calls in Palo Verde and possibly COB, and possibly short some puts." However (tr. at 257), Kristufek indicated that he was unsure whether or not these options were in-the-money. None of these statements contradict either the manipulation or hedging theories. Later (tr. at 270), when asked about Avista's net position on July 27, Kristufek stated, "I remember it being short futures. That's why we were buying them in." This is consistent with hedging theory, and inconsistent with manipulation theory.

However, when questioned about Avista's purchasing strategy, Kristufek was quite clear. When asked (tr. at 257, by DOE on direct testimony) to explain why Avista would be buying futures contracts, Kristufek explained:

..if they were buying futures contracts during the close for the options contracts, I could assume that they were long in-the-money – yeah, long in-the-money calls or short puts, and they were buying in those hedges that would have been short futures contracts against those hedges.

Similarly, when asked (at 258) why Avista might be selling contracts, Kristufek explained:

if they were selling futures contracts, I would think they were probably unraveling their hedge, which was a long futures, and long futures hedge would be against a long put position or short call position.

These two statements are simply descriptions of the defendant's hedging theory. In addition, later in his testimony (tr. at 265) Kristufek agreed with defense counsel's

---

<sup>22</sup> It appears to be an open question which side had the burden of proof in showing Avista's position. As the plaintiff, DOE would seem to have had the initial burden. However, it also might have been within the ability of the defendant. Recall, however, that Avista was not the defendant in this matter, so DiPlacido could not have supplied the information directly. In addition, the fact that Kristufek testified for DOE might imply that Avista was cooperating with DOE. The Defendant asserts (Reply Brief at 11) that this burden fell on the plaintiff. DOE did not address this issue. Using its *per se* rule, the CFTC was able to avoid this question.

statement that the futures contract purchases on July 27 were “a hedge against your [Avista’s] options position.”

Kristufek also discussed his strategies on trading during closing periods. He was clear that he was much more interested in having the trades he ordered quickly executed than in the price received by his traders. In other words, Kristufek was more interested in the speed of execution than the price Avista would receive for the contracts. For example, in his testimony (tr. at 268), he indicated that his chief concern was simply to execute the ordered trades: “I remember wanting to buy all the lots, and that was what my concern was.” When asked (tr. at 268) by defense counsel if he was concerned about the settlement price, Kristufek replied, “I don’t remember having that concern. I mean I remember having a concern of making sure we brought the lots in.” Again, this testimony is highly consistent with hedging theory, which implies that Avista would have been more interested in purchasing contracts than the actual price of those contracts. (Similarly, DiPlacido testified (tr. at 447) that Avista’s concern was “selling all of the contracts.”)

I contend that Kristufek’s testimony in support of hedging theory is very important. He was in a position to know Avista’s strategy. He was testifying as a DOE witness (as part of his consent agreement with the CFTC), yet his testimony supported the defendant’s position. Kristufek’s testimony was not contradicted in any way. No other evidence is available in the trial record about Avista’s strategy.

The other available evidence on Avista’s strategy may be found in the tape-recording of Kristufek that deals with the after-hours trading of July 27. As discussed below in section IX, this recording indicated that on that date Avista was conducting a hedging strategy.

Ironically, while there is no explicit statement of Avista’s position in the CFTC decision, there is a statement in the ALJ’s statement accepting Kristufek’s consent decree (*In the Matter of: Anthony DiPlacido et. al* 2002 CFTC LEXIS 119, 129 (2002).) There, the ALJ stated:

Avista Energy shorted August 1998 NYMEX Western U.S. electricity futures contracts because the manipulative scheme on the July Options Expiration Day involved placing a large buy order. These short positions, which were accumulated slowly and in a manner designed to avoid influencing prices in the market, would be offset by the large buy orders during the Closes of the NYMEX Western U.S. electricity futures contracts.

Amazingly enough, the ALJ claimed that Avista went long on close to enhance the value of its short position! In fact, the ALJ completely confused the theory. As

indicated in Table 2, a hedger will go long in the closing period to even out its short position, exactly as the ALJ described.<sup>23</sup>

If there is limited evidence on Avista's position, there is no evidence on how Avista "buried the body" As Pirrong suggests, finding such an effect should have been relatively straightforward. This stands in contrast to the decision in *Henner*. Given the magnitude of Avista's purchases, it should not have been difficult to find the body.

## **VII. Violating Offers: The Crux of the CFTC's Decision**

### **A. Were Bidders Violated?**

The crucial episode (perhaps episodes) revolves around allegations that the defendant "violated offers." Traders in a pit are required to take standing offers according to their price "attractiveness." Thus, if a trader has a large buy order and seeks to accept the outstanding sell orders, he is required to take the better offers first. If there is an offer to sell 10 futures contracts at, say, 98, and the next offer to sell is 20 contracts at 100, the buyer must take the offer at 98 before he takes the offer at 100. (The reverse rule holds for sellers.) Disobeying this rule is referred to as "violating offers."

In this matter, the defendant is accused of violating offers during the various settlement periods. Here I outline the evidence for whether or not the defendant intentionally violated offers. I then move to a perhaps more interesting question: assuming the defendant intentionally violated offers, can it be inferred that the reason for such violations was to manipulate the market?

Various traders saw DiPlacido violating offers. Among any violated traders, however, only trader Birbilis testified that he had been violated. Birbilis's testimony, however, may well be more supportive of hedging theory rather than of manipulation theory. Birbilis testified that he offered to buy from DiPlacido on July 27 at "5-1/2." (Here 5-1/2 represents a price.) According to Birbilis, DiPlacido first violated him by buying at "6." After that, however, Birbilis testified that DiPlacido bought from him at "5-1/2." (Tr. at 249-250. Which electricity product was at issue here is unclear to me.)

---

<sup>23</sup> There is one place in the Commission decision (slip op. at. 48) where the issue of Avista's underlying position is noted. According to the Commission, "Nevertheless, whether a respondent had a demonstrable motive may support an inference of specific intent, and there is evidence of Avista's motive in the record. Livingstone testified that Avista's trading strategy was linked to its OTC positions, and that DiPlacido told him that this was the case. Ex. 1, ii 8; Tr. at 125."

Once again, the Commission missed the point. Under either the plaintiff's or the defendant's theory, Avista's trading strategy is linked to its underlying positions. But what is dispositive here is whether the underlying positions support the manipulation or hedging theories. The Commission seemed completely unaware of this.

DiPlacido's defense was that in a crowded pit, he could not observe a number of offers and thus made trades with only the traders he could reach. This argument is consistent with DiPlacido first "violating" Birbilis, and then going back and picking up Birbilis's offer. In support of DiPlacido's contention that the pit was crowded, trader McHugh (tr. at 197) indicated that the pit was noisy and had an unusual number of people in it on July 27; Livingstone said something similar in his statement. Trader BWC (identified by his trading name) told the NYMEX panel that on July 27 there was "pandemonium" in the NYMEX ring. Similarly, trader JONM testified to the NYMEX panel that the trading ring was "chaotic" (NYMEX decision at 10). This supports DiPlacido's position. In addition, Birbilis (tr. at 247) indicated that on July 27, a NYMEX floor committee member was there but no report was made. Indeed, lack of NYMEX compliance interest in this event might imply nothing unusual was occurring.

On the other hand, Livingstone (statement at 10) indicated that he heard DiPlacido say he was violating offers on May 22. In addition, McCann (tr. at 224) stated that "brokers were screaming at him [DiPlacido]" on July 27 because DiPlacido was violating offers.

In what might be seen as the crucial piece of evidence about whether DiPlacido intentionally violated offers, the CFTC asserted that DiPlacido was caught on tape after trading had closed on May 22 saying that he had violated offers on that day. But this conclusion is not all that clear. The statement in question from DiPlacido was: "whatever bid they gave me, 'cause they were bidding for three's and two's, I offered right through them." Certainly this statement could be interpreted as implying that DiPlacido ignored the offers of the "three's and two's." But DiPlacido offered another interpretation of this statement at trial (tr. at 462), when he asserted that: "I mean that I hit every bid that was there, and then offered at 20 with these other guys, sold right through them." Thus, DiPlacido asserted that he drove the *price* right through the "three's and two" and kept on going, accepting the higher offers as well.

## **B. Why Violate Offers?**

I can offer no guidance on the true meaning of DiPlacido's statement of May 22, as it is consistent with both the plaintiff and the defense theories of the case. I will, however, discuss what may have motivated the offer-violating behavior, if it did indeed occur.

According to the CFTC (slip op at 48), "[b]idding at higher than prevailing prices or offering at lower than prevailing prices self-evidently maximizes price impact in derogation of that duty." The CFTC presented no further analysis of the impact of bidding violations. The Commission, however, failed to note that the index mechanism in *DiPlacido* was far different than the one in *Henner*. In *Henner*, the close price could be changed by simply making the maximum price for the day. In *DiPlacido*, where the close price was the average of many trades, changing the closing price was far more difficult.

The perhaps obvious theory is that the lower bids (and the higher asks) were ignored in order to raise the settlement price. If this was somehow done to generate a “leverage” or “information” effect, in which buyers were induced to revise their beliefs about supply-and-demand conditions, or by reducing available liquidity, then it could well be an attempt at manipulation. Unfortunately, DOE does not spell out a clear theory for this possible occurrence.<sup>24</sup>

The justification for the basis of the Commission decision—that equating violating offers with manipulation—appears to be that there is no other reason for a trader’s decision to violate offers. As discussed below, however, such a conclusion is incorrect.

In *Henner*, where the settlement price was the average of simply the high and low prices, it was easy for Henner to manipulate the closing price. In *DiPlacido*, however, where the close was the average of all prices during a relevant period, the ability to change the settlement price (and in what direction) is much harder to determine. In particular, the ability to arbitrage in the pit makes it possible for a strategy of violating offers actually to *lower* the settlement price.

For example, assume that a particular closing period had 100 futures contracts traded at an average price of \$50. Assume further that 10 of these contracts were bought by DiPlacido to arbitrageurs at 49. These contracts were then “resold” to the “violated” traders at a price of 49.

Mathematically, the calculations start with 100 futures contracts at an average price of \$50, for  $100 \times 50 = 5,000$  “proportional value units.” I take out of this total  $10 \times 48 + 10 \times 49 = 970$  value units. This leaves 80 trades with  $5,000 - 970 = 4,030$  value units remaining.

I then construct what would have occurred had DiPlacido not violated offers. I have the 80 futures contracts with 4,030 value units. I also have DiPlacido accepting 10 offers at 48, for 480 value units. Together, I now have 90 futures contracts with 4,510 value units. The settlement price is now  $4,510 / 90 = \$50.11$ , \$0.11 above the “actual” closing price. Thus, it now can be shown that violating offers can move the settlement price in the opposite direction from that which a manipulator would prefer, and this possibility is consistent with the relevant evidence.

Clearly, the existence of violated offers creates the possibility that someone could sell to DiPlacido at a high price and then buy at a low price from the violated trader. This is exactly what trader McCann indicated that he did on July 27 (Hearing tr. at 230.) Defense expert witness Kyle asserted in his statement (at 44) that in the NYMEX hearings trader JONM testified that he was able to engage in pit arbitrage on that day. In

---

<sup>24</sup> In addition, I cannot discern a manipulation theory that explains why DiPlacido would first intentionally violate Birbilis’s bid and then come back and take that same bid.

addition, trader Birbilis indicated that he attempted to arbitrage the violated traders on July 27 (tr. at 242).

This arbitrage possibility has important consequences for the impact of violating offers on the settlement price. Assume that DiPlacido's relevant offers were below the final settlement price. This is not an unreasonable assumption, as DiPlacido made it a central point of his defense that his average prices were better than the settlement prices in April and May and equal to the settlement price in July.<sup>25</sup> Violating offers therefore create more trades below the settlement price and therefore lower the settlement price.

Violating offers can also be consistent with hedging theory. In addition, violating offers because of a desire to hedge has a testable implication.

Assume that a party wishes to dispose of a number of futures contracts during the closing period, as the hedging theory discussed above indicates. This is not an easy task for a number of reasons. The closing period is short, and there is no legal recourse if a position is not unwound during the close. Indeed, as the discussion in section VIII indicates, DiPlacido was unable to sell 68 PV contracts on July 27. Given this, and the incentives of a hedging party on close, liquidity is quite likely going to be relatively more important than price. In particular, under hedging theory, a buyer of contracts has strong incentives to seek out the larger sellers of contracts, even if such sellers are not offering the best market prices.

This theory can be tested by looking at the sizes of the offers that were violated. Violation of relatively small offers would be supportive of the hedging theory. The limited evidence available indicates that if indeed DiPlacido was violating offers, it was the small offers. Thus, for the May 22 PV close, the crucial recording presented by DOE and noted above had DiPlacido stating, "whatever bid they gave me, cause they were bidding for three's and two's, I offered right through them." Interpreting "three's and two's" as a description of the futures contract size offered by the relevant traders,<sup>26</sup> this statement (assuming one believes offers were violated) has DiPlacido explaining that he was offering through small offers. For the same close, trader Caesar told Kristufek his offer of 2 PV futures contracts was violated (Exhibit 25, page 1).

Thus, the relevant theory implies that manipulation through violation of offers theory has significant difficulties. Assuming that DiPlacido did indeed violate offers, the available evidence is more consistent with hedging theory.

---

<sup>25</sup> Indeed, as the Commission noted (slip op. at 54-55), DiPlacido's average close on PV in April and May was below the market average. In the July close DiPlacido's average close was equal to the market close. If DiPlacido did violate bids, and his average close was below the market average close, his actions may have caused "churning" at prices below the market average close, thus reducing the market close.

<sup>26</sup> Immediately prior to the quoted statement, DiPlacido noted, "I should have more to sell here, these guys, they buy 2's and 3's." This statement could be interpreted as meaning that DiPlacido had far more to sell than the allegedly violated bidders could buy.

## VIII. After Hours Trading on July 27, 1998

On this date, DiPlacido engaged in trading after the closing of the relevant market. Such action is clearly illegal, and the defendant did not deny that he had engaged in such behavior.

The CFTC, however (slip op. at 6), blithely concluded that DiPlacido was acting to manipulate the market. It is clear, however, that if DiPlacido's actions were market manipulation, it was a very unusual form of manipulation. Further review of DiPlacido's actions shows that his goal was to hedge Avista's market positions rather than to engage in manipulation.

Here I outline these events and explain that manipulation theory includes a necessary condition that seems unlikely to have been satisfied in the case. I then pose two important questions about these events not answered by manipulation theory. I posit theories about what did occur, both consistent with the relevant evidence and inconsistent with manipulation theory. After that, I examine why Avista chose to engage in after-hours trading and for which contracts. This evidence is highly supportive of the hedging hypothesis.

The evidence indicates the following events: After trading was completed on both the COB and PV futures contracts on July 27, McHugh (another NYMEX member) approached DiPlacido and asked if DiPlacido would be willing to purchase McHugh's outstanding long position in both the COB and the PV contracts. (McHugh had observed DiPlacido aggressively trading these two futures contracts during the close.) Kristufek, of Avista (who was acting as DiPlacido's principal), agreed to purchase 25 PV futures contracts and suggested a price to DiPlacido of \$57 per mega-watt hour (MWH). DiPlacido noted that in his estimation (at that time) the settlement price would be higher than \$57/MWH<sup>27</sup> and suggested that \$58/MWH was an appropriate price. McHugh then agreed to that price. Kristufek did not agree to buy any COB futures contracts from McHugh.

In part A of this section, I describe the CFTC's manipulation theory and explain an important infirmity in that theory. In part B, I suggest a theoretical problem with the argument that the \$58/MWH price agreed to implies manipulation, and present two hypotheses for DiPlacido's suggestion of that price. In part C, I present evidence of Kristufek's reaction to McHugh's offer to sell Avista both COB and PV contracts, a

---

<sup>27</sup> DiPlacido incorrectly estimated that the settlement price would be greater than \$57/MWH. The settlement price turned out to be \$56.81. At trial (tr. at 473), DiPlacido asserted his belief that the closing price should have been 56.91, because 25 contracts that were reportedly traded at \$55.50/MWH did not in fact trade. DOE's cross-examination (tr. at 557-9) showed that DiPlacido had made several calculation errors. DiPlacido then recalculated his asserted settlement price, arriving at final settlement price of \$56.90/MWH (tr. at 587).

reaction that clearly refutes the manipulation hypothesis and supports the hedging hypothesis.

### **A. Manipulation Theory**

In its trial brief, DOE suggested that the behavior discussed here constituted manipulation, for if DiPlacido had offered and McHugh accepted the lower price of \$57/MWH, the settlement price would have been lower and thus the alleged settlement price manipulation less successful. Of course, this implication requires that McHugh would have been willing to accept that lower price, an assumption that does not appear to be borne out by the record.

It is important to note that this is not a “typical” theory of settlement price manipulation. The “typical” theory, as discussed in section II, implies that by entering the market, the manipulator affects the price of other participants by either creating an artificial liquidity shortage or changing participants’ beliefs about supply-and-demand conditions. Here, however, since the relevant trade is after hours, no other trades would be affected by the alleged settlement price manipulation. Thus, there would be no “leveraging” effect, which is a crucial part of the “typical” theory.<sup>28</sup>

Given, however, that McHugh would have taken the lower price, it is straightforward to calculate the resulting change in the settlement price. A total of 342 total PV futures contracts were traded during the close (Bessimbinder statement at 30). Assume that DiPlacido believed that the settlement price would be \$58.00/MWH. (The results here are not qualitatively different using different settlement prices.) This means that the total value of these was proportional to  $342 * \$58.00 = \$19,836$ . Selling 25 futures contracts at a dollar less implies that one would subtract \$25 ( $\$1 * 25$  futures contracts) from this amount, to yield a “counterfactual proportional value” of \$19,811. Dividing this value by the number of futures contracts sold (342) yields an average price of \$57.93. Thus, the alleged manipulation arguably increased the settlement price by 7 cents ( $\$58.00 - \$57.93$ ).

Given this, what position would Avista have had to hold for this to be a profitable manipulation strategy? Assuming away the costs of “burying the body” (disposing of excess futures contracts), this is a simple number to calculate. Let N be Avista’s net position in options, equal to its option position minus its short position in futures contracts. Net profits to Avista are therefore:

Net Profits = (N \* Change in the Settlement Price) – (Number of Futures Contracts Acquired \* “Excess” Payments per futures contract)

---

<sup>28</sup> Thus, DOE expert economist Bessembinder pointed out (statement at 9) that a scheme is more likely to be manipulation if it “causes other market participants to believe that supply-and-demand fundamentals support higher future prices.” Here, because the trading is after hours, no other traders might be induced to reassess their beliefs about supply-and-demand fundamentals.

$$= \$0.07N - \$25.$$

This number is greater than 0 if  $N > 25/0.07 = 357.14$ .

Thus, a necessary (though not sufficient) condition for this event to have been manipulation was that Avista was more than 357 call option contracts long.<sup>29</sup> Unfortunately, though this information would seem to have been easily available to DOE, it is not part of the record. Given, however, that this was a “thin” market, as DOE pointed out, acquiring a long position of 357 options seems somewhat unlikely.

### **B. Why Such a Low Price?**

The manipulation theory implies that DiPlacido/Avista wanted a higher rather than a lower price. This theory then leaves unanswered another question: why was the price between McHugh and DiPlacido/Avista so low? Surely, all else being equal, McHugh would have been willing to sell his PV futures contracts for a price above \$58/MWH. Given the manipulation theory (and assuming that Avista was more than 357 options contracts net long), Avista would also have agreed to any higher price.

There are two available (and perhaps complementary) theories for this relatively low price. First, recall that the parties involved are conducting an illegal transaction. Given this, what is the best price to select to reduce the chances of detection? That price would clearly be the settlement price. The more of an “outlier” a price is, the larger the probability that the illegal trading would be detected. Thus, the change in price (by assumption nearer the settlement price) can be seen as an attempt to reduce the chance of detecting this illegal action.

Second, given that McHugh and Avista agreed to trade, what price would they have traded at? Normally, such a trade would be taken to the floor, and the price would be determined competitively. But by definition no such price is available in after-hours trading. Given this, the settlement price is the only metric available of a “fair” price. Any conversations about the trading price between Kristufek and DiPlacido can therefore be seen as an attempt to discover the settlement price.

Both these theories are consistent with the observed events. Neither is consistent with the manipulation theory, for any trades conducted at (or very close to) the (believed) settlement price will not change the settlement price in any economically important way.

---

<sup>29</sup> In a similar calculation (statement at 38), defendant’s expert Kyle concluded that Avista would have had to be more than 354 call option contracts long. Kyle and I appear to use slightly different assumptions about the settlement price, which results in the difference.

### C. Why Was Only the Palo Verde Futures Contract Offer Accepted?

According to the DOE theory of this case, DiPlacido and Avista were attempting to manipulate both the COB and the PV markets on July 27. McHugh offered to sell Avista/DiPlacido futures contracts in both markets. Yet DiPlacido/Avista only accepted McHugh's offer for PV futures contracts. I am unable to explain why this would be consistent with manipulation theory.

A review of the tape transcripts, however, shows how this event is consistent with hedging theory. (The transcript is from after-trading hours on July 27, Folder 13:01-15:00, Folder 14, File 57.) I begin at the point at which Kristufek learned that McHugh was offering contracts for sale after trading hours.

Kristufek: Um. I I [sic] can buy 25 PALOs if he wants to put the spread on. But I can't buy 25 PALOs right now. I over bought COB and you guys [apparently Livingstone and DiPlacido] under bought in PALO. So, that's the problem I'm havin'. If he wants to put on a PALO-COB spread...

Livingstone: Hold on, hold on one second. Here's JADE [DiPlacido's trade name].

DiPlacido: Hello.

Kristufek: Hey.

DiPlacido: Can you help this guy out?

Kristufek: I can help him out and I think I'm putting I'm doin' him a favor by puttin' the spread on for him. I basically wou..., I need the I need the PALOs ok.

DiPlacido: OK.

Kristufek: So, I can I buy 25 PALOs from him. But you know, I think it's a good spread to have on, if he's ah if he's long the COB and short the PALO. So.

I believe this indicates the following: At the end of the trading period, Kristufek found that Avista had bought too many COB and too few PV contracts. Indeed, the NYMEX Adjudication Committee decision (at 10) indicated that Kristufek was angry because DiPlacido had been unable to purchase the requested PV futures contracts.<sup>30</sup>

---

<sup>30</sup> The Defendant's Appeals Brief (at 62) stated that DiPlacido had 68 unfilled PV orders at close. I had the opportunity to listen to a recording of Kristufek's comments after the PV close (Exhibit 14, Folder, 14, 100.WAV). Kristufek stated: "I told you to bring me

From a desire to “go flat” and hedge his position by “unwinding,” Kristufek responded to McHugh’s offer by making a proposal to buy PV-COB spreads from McHugh. (Livingstone, statement at paragraph 19, confirms Kristufek’s desire for a spread.) This would have moved Avista toward a flat position. McHugh, however, was long in both PV and COB. (Thus, both McHugh and Avista were long in COB.) Therefore, Avista agreed to purchase PV futures contracts from McHugh, hedging both their positions in PV while making no trades in COB.

This evidence indicates that the motivation for the after-hours trading by Avista was to hedge its position, and explains why Avista accepted McHugh’s offer of PV futures contracts, but not COB futures contracts.

In conclusion, in light of the after-hours trading of July 27, the manipulation theory has serious theoretical flaws. In addition, it does not explain why the agreed-to price was so low and McHugh’s offer of COB futures contracts was not accepted, despite the fact that his offer of PV futures contracts was. (Indeed, the manipulation theory does not explain why Kristufek wanted to *sell* COB futures contracts after buying them during the close.) The evidence here is supportive, once again, of the hedging theory.

## **IX. The Final Words?**

Much of the evidence in this case involved tape recordings. As the careful reader will have already noted, traders in the heat of action on the floor will use their own jargon in excited tones.

In reviewing these tapes, one should first realize that they are recordings of people under extreme business pressure. Not surprisingly, they spend a good deal of their conversations engaged in various forms of braggadocio. Thus, one should be aware of a tendency to exaggerate strategies and accomplishments. This in turn means that it may not be appropriate to take such statements at face value. As economists put it, much of what was discussed was “cheap talk.”<sup>31</sup>

Second, floor traders use their own “lingo” when describing relevant events. Given this, one should be very careful about reaching conclusions about particular statements. This also means that alternative theories should be considered when evaluating these conversations. Unfortunately, the CFTC placed much of its decision on potentially inflammatory statements by parties that actually have ambiguous meanings.

---

250 [PV] and I’m hoping you bought me at least 200.” Kristufek is clearly very angry in the recording. I was unable to find a transcript of this recording.

<sup>31</sup> The Defendant’s Memorandum in Support of a Motion to Dismiss (at 11) stated that the Chair of the NYMEX Appeals panel presented in oral argument a similar view of the information value of traders’ statements. For similar arguments in an antitrust context, see *A.A. Poultry Farms* 881 F.2d 1396 (1989) (Easterbrook, J.) and *Olympia Equipment*, 786 F.2d 794 (1986) (Posner, J.).

Basic economic theory teaches that if the demand for a product increases, the price of that product will rise. Similarly, if there is an increase in the supply of the product, the price of that product will decline. Thus, for example, market participants know that if they wish to buy a large amount of a relevant product, they will drive the price of that product up. In the context of *DiPlacido*, it means that there is no economic difference between a statement urging that the price be driven up (to support manipulation) or that traders be willing to drive the price of the product up in order to buy the (large) quantity desired.

For example, assume that a trader receives a large order to buy (or sell) as a market is closing. Under hedging theory, with the options market expiring, the client needs to unwind its position in the underlying futures contract. Further, because of its position, the client is less interested in the price of the trade than expected. Under these circumstances, sell “at market worst,” or “don’t be shy” (slip. Op at 8) or “send prices to the moon” (slip. Op. at 11) by asking for an “ugly” closing price (slip. Op. at 11, 13), for example, is simply shorthand for “get rid of our position as fast as you can,” or “sell no matter what impact that has on price.”

Such statements were at the core of much of the CFTC’s argument. Of course, they are also consistent with manipulation theory. My point is that these statements are nondispositive in determining which theory best deals with relevant events.

Left out of the CFTC decision was a piece of information that was seemingly crucial to the DOE position at trial. Following up on the DOE brief, I had the opportunity to listen to the tape recording of the PV close on July 27 (Exhibit 104, Folder 14, 152 WAV). In this conversation, Kristufek was speaking on the telephone to DiPlacido, who was in the trading pit. Kristufek was clearly agitated throughout the recording. At one point he said, “I want it ugly,” referring to the settlement price. He then stated, “I need 250 [contracts]. I need them.” Then he stated: “I want it [the price] higher.” Then Kristufek urged DiPlacido: “I need the f---ing lots.” (Kristufek made this statement twice.) Then Kristufek stated: “I need the f---ers.”

In the end, this is what this matter was all about. Avista, DiPlacido’s client, was caught either short or long on various contracts and was trying to even out its position. Avista and DiPlacido’s conduct had nothing to do with manipulation.

## X. Conclusion

Market manipulation is a continuing threat to the efficiency of commodity markets. The CFTC is designated as the expert agency in charge of protecting these markets. As the expert agency in this area, the CFTC is charged with separating out manipulation (which destroys the effectiveness of markets) from hedging (which is the purpose of such markets). Since 2001, the CFTC has carried out an active enforcement agenda against market manipulation. Yet the events in *DiPlacido* raise serious questions about the efficacy of the CFTC's actions. In particular, the CFTC appears unable to differentiate between manipulative and hedging activity.

Unfortunately, rather than carefully analyzing the actions at issue in *DiPlacido*, as courts have told it to do, the CFTC first created a legal doctrine where one did not exist out of the 37-year-old hitherto obscure *Henner* case, quoted a variety of statements out of context, and ignored a great deal of evidence that supported the defendant's position. Indeed, the great irony here is that the Judicial Examiner in *Henner* conducted exactly the type of inquiry the CFTC should have performed in *DiPlacido*.

In narrow terms, it is clear that *DiPlacido* should not have been found liable for market manipulation. More broadly, this casts substantial doubt on whether the Commodity Futures Trading Commission is up to the task of protecting the nation's commodity markets from market manipulation without harming the ability of those markets to act as effective risk-hedging vehicles.