Economic Evidence in Manipulation Cases

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May I begin by saying that while the legal and economics professions share responsibility for developing better diagnosis, prevention, and cure for manipulation, it is not easy to divide that responsibility and I cannot promise to confine my discussion to its economic aspects. Moreover, theirs is not the only responsibility, for, in particular, the best-informed observers of manipulative attempts are the market participants, among whom a widespread if not pervasive attitude is that self-corrective action in the marketplace will usually frustrate (or punish with losses) the would-be manipulator. Apart from that, the question of the reliability of this cure, there remain questions of distorted signals and resource misallocations before the “cure” takes effect, as well as the question whether it is mere reluctance to “blow the whistle” as distinct from confidence in the corrective which motivates some participants.

I recall meeting in 1959 with a flour mill executive who had agreed to show and explain their hedge positions to me. When I inquired into the seeming abnormality in the then current position, he named the individual whom they perceived as attempting a squeeze on Chicago May wheat, and indicated his further perception that the individual was going to get a lot of wheat. There were record deliveries on Chicago contracts that year, and a precipitate decline in May futures prices from an April high of 212 3/8 to May low of 183 3/4 on the last trading day. If this was indeed an attempted manipulation which was broken by market action—action which would not otherwise have been taken—it seems to me that some means of stopping the attempt short of countermanipulation would have been preferable. Taylor’s History of The Chicago Board of Trade would suggest that in an earlier era, manipulative attempts were commonplace, whereas a fair proportion of these were defeated by market action. Both the law and the exchange rules impose obligations to prevent manipulation, neither contemplates mere self-corrective market action, yet neither is at all specific regarding diagnosis, prevention, or cure.

The elements of manipulation

What constitutes a manipulation is presumably an economic question, whereas what constitutes an illegal manipulation is presumably a legal question. When the Federal Farm Board bought wheat futures in a deliberate effort to hold prices above the market equilibrium level, that was manipulation (or at least attempted manipulation) but it was legal. The distinction is fairly clear-cut in such an instance; but it is when we begin to think about actions which are adjudged illegal but are not manipulations that the legal-economic division becomes fuzzy and troublesome. The danger of this happening grows out of efforts to decompose manipulation into its elements or define it in terms of certain criteria. Legal doctrines pertaining to vagueness give rise to a piecemeal approach—if a duck cannot be defined, then try to decide whether it walks like a duck and quacks like a duck. Similarly, establish the elements, or the criteria, of manipulation in order to prove manipulation. Unfortunately, vagueness may remain despite the appearance of precision gained in breaking down into elements or listing criteria.

The basic elements of manipulation are usually given as (1) intent, and (2) price artificiality. Supposing these elements to be well-defined, then it becomes (mainly) a legal matter to prove intent and (mainly) an economic matter to establish price artificiality. But is the definition of intent, or of price artificiality, that much less vague than the definition of manipulation?
Consider the nuances with respect to “intent” which are almost obscured in the following quotes from the Commodity Futures Trading Commission in the recent Hohenberg case.¹

... Manipulation has been defined generally as conduct intentionally engaged in resulting in an artificial price that does not reflect the basic forces of supply and demand.

A finding of manipulation in violation of the Act requires a finding that the party engaged in conduct with the intention of affecting the market price of a commodity (as determined by the forces of supply and demand) and as a result of such conduct or course of action an artificial price was created.

The first portion of the quotation refers to “conduct intentionally engaged in resulting in” [emphasis supplied]; whereas the second portion refers to “engaged in conduct with the intention of” [emphasis supplied]. Now there is a world of difference between my intentionally striking a match which results in my house burning down and my striking a match with the intention of burning my house down. Not to poach too far onto the legal preserve with such seeming quibbling, let me simply point out that the former is much easier to prove (that I intentionally struck the match) and that the legal doctrine which says that I may be presumed to intend the normal consequences of my actions makes a large leap toward the second (that I intended to burn down my house). I intentionally struck a match; I dropped it; I should have known it would burn down my house; therefore, I intentionally burned down my house. I intentionally purchased futures contracts; I held them, I should have known that this would distort prices; therefore, I intentionally manipulated the market.

If the legal profession has not resolved the element of intent, the economics profession has not resolved the element of price artificiality. We can devise a structural model with 15 independent variables which will “explain” 90 or 95 or whatever percentage of the price variation which occurred over x years. But if Mt. St. Helens erupts, or the Ayatollah dies, or the Secretary of Agriculture tells a new fib, or the budworm comes over from Mexico, these and a host of other excluded factors may produce a price abnormality or a price aberration, temporary or sustained, which is not an artificial price.

Moreover, the stereotype of price manipulation is the delivery month squeeze. It is true that such a thing exists. It is also true that what the Congress has long chosen to term “sudden or unreasonable price fluctuations” are more likely to be observed in delivery-month situations whether or not there is a manipulative squeeze. Prices can get out of line and stay out of line, whether or not as a result of manipulation, but the corrective adjustment, which is often abrupt, is more likely to occur at delivery time than otherwise. Thus, while it may be true that the delivery month is the most likely place to look for artificial prices, it is also the most likely place to look for sudden corrections of mistaken or manipulated prices.

A further and related difficulty is that econometric analysis is better suited to drawing conclusions regarding large price aberrations than smaller ones, whereas the likelihood is that large price changes are less likely to be artificial whereas small artificial changes can be quite lucrative. The company that buys 20 contracts at the close to help price a major cash sale may have a futures price effect lacking statistical significance but possessing excellent bottom-line significance. On the other hand, in the Cargill case, viewed by CEA as a delivery-month squeeze, the economic evidence of price artificiality which they presented was numerically curious. Prices for the May wheat future (1963) rose by the daily limit (10 cents) on each of the last two trading days. Yet only the last $.02½ of that price rise was characterized by their economic expert as being artificial. The decision in that case did not explicitly rely upon such economic evidence, but the problem of establishing the element of price artificiality is well illustrated there.

Turning from the elements to the indicia of manipulation, the major indicia which entail economic evidence are (1) the concentration of positions, (2) the size of the open interest in an expiring contract as an indication of possible congestion, (3) the relationship between the open interest in an expiring contract and supplies available for delivery, (4) the relationship between the size of positions held in “concentrated” hands and supplies available for delivery, (5) the definition of deliverable supplies as embodied in (3) and (4).

There is a large body of industrial organization and imperfect competition literature which emphasizes concentration ratios and the like, and there is a long tradition of setting limits on speculative positions, partly to avoid manipulation; both of which underlie the use of concentration as an indicator of manipulation or its potential. A serious problem resides, however, in the paucity of economic analysis relating to concentration in the futures area. A forthcoming paper by Todd Petzel and some of Anne Peck’s current research are helping to fill this void, but the void still exists. The court which hears a manipulation case will invariably be given some concentration index which it will have to assess in a void, lacking any framework in which to give it historical analytical perspective. Selected examples are scary: the CFTC found that four traders holding 87 percent of the long and two traders holding 60 percent open interest in March 1979 wheat with four trading days remaining, comprised part of a perceived threat of manipulation. The CEA made much of the fact that Cargill held 63 percent of the open interest (in May 1963 wheat) with seven minutes remaining to trade. The CEA did not perceive manipulative potential, however, in Tino DeAngelis’s holding of 94 percent of the long open interest in all delivery months for cottonseed oil, in the same year that Cargill held 63 percent in the expiring contract with seven minutes of trading remaining.

Meanwhile, the CFTC now regularly publishes some aggregated concentration ratios for various commodities, yet no analysis has been conducted to test whether these bear any relation to price behavior, and, in fact, the data appear in such form as to preclude significant analysis by delivery month. We are left with numbers that have no context. We don’t know what the typical concentration ratio in a particular delivery month is, with four days, seven minutes, or any other interval of trading time remaining. We don’t know

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\[\text{CEA Docket 120.}\]
what factors influence changes from year to year, or the rate of change within a
year, in concentration ratios for particular markets and delivery months.

The size of the delivery month open interest as delivery date approaches is also
viewed, oftentimes in conjunction with its concentration, as an indication of the
extent of congestion in the market. Other than perhaps a direct comparison
with other years in the same market, this number is also presented barren of
analytical or historical context. It is well recognized that hedging is rolled
forward more readily in carrying charge markets than in inverted markets,
allowing more rapid liquidation of the open interest, yet this functional
relationship has not been adduced, to my knowledge, in assessments of
manipulation. It would be helpful to have a study of the size, date, and
composition of the peak open interest in each contract, with its rate of decline
related to carrying charges and other factors.

A third factor often adduced as a manipulation indicator is the relationship
between the open interest in an expiring contract and supplies of the
commodity available for delivery. This too can be a meaningless statistic unless
account is taken of record of recirculations of delivery notices in liquidating the
open interest. A study of this record as it relates to price behavior in expiring
contracts would be useful, and might reveal that seemingly congested markets
tend to get cleared out without calling in the roto-rooter.

In addition to relating size of open interest to deliverable supplies, sometimes
concentration of the open interest is adduced in the same relationship, showing
one or a few traders holding futures positions larger than the apparent
deliverable supplies. Whether in this or any other application, concentration of
futures positions needs the aforementioned analytical and historical context.

Economic evidence also entails the definition of deliverable supplies, which has
played a key role in different court decisions, depending upon whether the
courts adopted a narrow or liberal construction of what constitutes deliverable
supplies. The Volkart decision involving certificated cotton placed emphasis
upon the opportunity and the obligation which shorts had to meet their
contractual obligations by delivery. The Great Western decision had
emphasized the economic barriers to delivery, and, relying heavily upon this
case, the Department of Justice in briefing the Cargill case seems to say that the
short has no delivery obligation under the contract because there never was
intent to deliver. It ill behoves the economist to fault court decisions when the
courts have been bereft of competent economic analysis on the question. In the
present state of affairs, about the only certainty is that the regulatory agency
will define deliverable supplies to suit its purposes—meaning very narrowly
when they are prosecuting a manipulation case and very broadly when they
miss one. Officials in the CEA took great pains to establish that any vegetable
oil located anywhere could have been delivered against the DeAngelis position
in 1963, because in that case they had failed to proceed with a complaint. On
the other hand, when they do proceed they typically confine their perception of
deliverable supplies as narrowly as possible. Respondents are, of course, free to
introduce contrary evidence and interpretation, but this leaves the courts in the

\[1\] Volkart Brothers, Inc. v. Freeman 311 F.2d 52 (C.A.5)

\[2\] Great Western Food Distributors, Inc. v. Brannan, 201 F.2d 476, 480-81 (7th Cir. 1953), cert.
position of having to define deliverable supplies de novo for each case, and it leaves the respondent in jeopardy that the courts will attach greater weight to governmental expertise than private expertise. Meanwhile, the historical tendency has been to broaden delivery opportunities by adding alternative locations, extending delivery periods, and allowing delivery of more grades or qualities. When to this trend is added the predisposition of the regulators to protect the shorts, perhaps the time has come when the obligations of the shorts be brought into focus.

In summing up the situation with respect to criteria employed in detecting or proving manipulation, it appears to me that the failure lies not in the selection of inappropriate criteria, but in the tendency to adduce these devoid of any significant analytical framework or historical context.

It is not enough to show that a price was higher (lower) than in other years, higher (lower) than for other delivery months, or for other locations, or for other grades and qualities. The underlying determinants of these relationships must be analyzed—a task which may strain the competence of the regulatory agency and the budget of the respondent to the point that it is unlikely to be undertaken in particular cases. This suggests to me that exchanges, academic economists, and research economists in other government agencies need to give more attention to this issue than they have heretofore. With the continuing growth in the importance of the futures industry, it may be expected that progress will be made along these lines. The growing perception that the two most abominated professions in our society—law and economics—have much to learn from one another, may also help to solve the problem.

In recent years, there has been a growing tendency toward some form of market intervention or another, either by exchanges, the CFTC, or some ill-defined combination of the two, when a manipulative or other disruptive threat is perceived. These interventions, ranging through margin increases, position limits, phased liquidation, liquidation only, or settlement of all contracts at a designated price are subject to various criticisms:

1. The action may be based upon inadequate evidence, such as I suspect was the case in March 1979 wheat at Chicago.

2. The action, while it nominally applies to all participants, is likely to affect different participants inequitably.

3. The action may be perverse in terms of its intended results; e.g., increased margins may reduce liquidity when liquidity is needed to relieve congestion, or increased margins may not affect a controlling interest while affecting other traders; phased liquidation may result in limiting delivery opportunities for shorts when an extended opportunity may have been called for.

4. Most such actions tend to undermine confidence in the market.

5. When exchanges conduct the intervention, conflicts-of-interest suspicions are aroused.

These and no doubt other concerns over emergency interventions make a strong case for the attempt to devise preventive measures which will be known in
advance and will go into effect automatically. By and large, the situation with regard to any such measure is very similar to that respecting manipulation; namely, we presently lack the analytical base upon which to devise such measures. What concentration in the open interest is intolerable in which delivery months for which commodities? If tapered position limits are to be adopted, in line with Allen Paul's suggestion, it seems to me to assume that we have some good idea of the answer to that question — yet I doubt that we do. I have no objection to the use of early warning signals, nor to automatic rules based upon such signals — indeed I think that such a system is, in principle, preferable to emergency interventions which in one degree or another cut across contracts. I simply believe that a great deal of study and effort will be needed before any such system can be devised which will, on the one hand, protect the rights of legitimate market users and, on the other hand, prevent abuses.

Conclusions

The current state of the use of economic evidence in manipulation cases leaves much to be desired. Court decisions in recent years offer conflicting guides regarding such fundamental matters as intent, price artificiality, deliverable supplies, and obligations of the parties (especially the shorts) under the contracts. What passes for economic evidence in some of the hearings is often slipshod, and typically a rote recitation of a set of numerical indicia. The court decisions are case by case, and the CFTC analysis is case by case. It appears that the exchanges as well as economists outside the CFTC will need to conduct the more fundamental analyses which are needed, absent any disposition within the CFTC to change its approach.

Despite this unsatisfactory state of affairs, and despite a recent rash of well-published allegations of market abuse, it is reassuring to note that the markets are used by growing numbers with growing confidence. Some instances of price manipulation have short-lived consequences that are not far-reaching. Many price aberrations are the result of some unplanned and unexpected development. And, most important, there is considerable economic evidence of good market performance.

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John Mielke: I've got several questions, and maybe both of you can give your thoughts. Let's start with the obligations of the short versus the rights of the long. That's frequently something which becomes a considerable issue in a price manipulation case. Is there also something to be considered in terms of the rights of the short in the obligations of the long, particularly when the long has the market power to affect price?

Phil Johnson: In the essence of a manipulation, the fact that the power in the market may be in the hands of the long may not tell us a great deal. The concept of the futures contract is that you either offset or you deliver. The obligation is there to do one or the other. If the short finds at the time when he must perform his obligation that he cannot or will not deliver and that he must then deal with the long, that strikes me—in the absence of a contrived situation like a manipulation—to mean simply that the system is working. The long was right and the short was wrong. Those mistakes are always settled at a price.

Roger Gray: I would always start with the premise that the rights and obligations of both parties are equal, and that the rights and obligations of the short are interrelated. If the short has not assumed his obligation under the contract to prepare to deliver, then he abrogates in some degree his rights in the market, or exposes himself to the other alternative, which is offset. Again, I make this comment absent of consideration of there being a deliberate manipulation in the market.

John Mielke: If a short has not had the foresight to make the plans to deliver and as a result has to pay a high price for offset, how does that affect the question of whether or not there was a manipulation or a squeeze? Or does it affect that question?

Roger Gray: If the only facts you are giving me are these, John, I don't think it affects the question. I do agree that if, from the legal standpoint, some deliberate attempt to manipulate can be established, then whether or not the manipulation occurred would depend upon, among other things, whether or not the price went to an unjustified level.

John Mielke: Frequently, at industry meetings or conferences of this sort, the CFTC is criticized for focusing on the delivery month manipulation squeeze. It is criticized for focusing on the longs and for focusing on the last day of trading. Given that the commission has the responsibility, what types of market behavior ought the commission focus its resources on in its programs to try to prevent manipulation?

Roger Gray: As I said in my paper, manipulative attempts or manipulations have occurred in delivery months. Confining attention on delivery month situations and on loans tends to overlook the fact that prices which for one reason or another are out of line—and I agree with Phil that futures markets are imperfect institutions and we can expect prices to get out of line—are most likely to get into line in the delivery month. It seems to me that the search is likely to turn up as many instances of corrective action that look to the commission like manipulation as it is to turn up real manipulations.

To answer your other question, I've made the point that little lucrative manipulations are much more prevalent than the big ones that you look for in the delivery month. Therefore, a good deal more attention would have to be focused upon the kinds of trading activities that occur particularly in very small markets where some trades get walked in or some friends get bailed out when the market is quiet, or the kinds of activities that occur when somebody has a huge export sale to price or when somebody has some fear of a margin call—the kinds of problems that occur when somebody in the cash market has lots of leverage into the cash market from smaller activities in the futures market. I
wouldn’t make a very good gumshoe and I’m not in the position to advise you how to go about this, but I suspect that that kind of manipulation occurs with some frequency. I suspect that the delivery month squeeze type of manipulation isn’t a very frequent event.

**John Mielke:** Much was said in both your presentations about the role of the percent position, if a percent of open interest is rather large. By looking at percent of open interest, aren’t you really looking only at one blade of the scissors, so to speak? Don’t you also need to consider the magnitude of the position relative to deliverable supply? If a person has 100 percent of the open interest which amounts to 100 contracts, and deliverably supply is a thousand contracts, that in my mind is not really a dominant position. I think Cargill seemed to recognize that, although I think they did use the word dominance when they referred to the percent of open interest. But they immediately preceded to the deliverable supply comparison as well.

**Roger Gray:** I intended when I listed these factors to indicate that all five factors are taken one in conjunction with another, and one in relation to another. My answer is yes, I think that they should be. I think it would be highly desirable, even if quite expensive, if we could have pictures of the sort that Tom Hieronymus showed us yesterday and have them for every delivery month in every commodity. Then we can place his numbers in context and say what really was different there than at other times. I think that we need the kind of information that Tom was showing us yesterday, and I think that it’s unfortunate that we only get these little bird’s-eye glimpses when there is a manipulation charge brought. So once again, we’re looking at that information in a void because we don’t know whether that was different in that market the year before or in the last ten years or whatever. All we could know about market composition and all we could know about the distribution of the open interest at particular points in time for particular commodities for particular delivery months would help us place a lot of this in context. Unfortunately for the courts, and unfortunately for you guys, we don’t have that information; and you tend to have more of it than we do.

**Phil Johnson:** John, as a sort of legal side to what you’ve said, I look upon manipulation as very, very closely related, if not a twin, of the antitrust concept of the monopoly. The impact, in effect, is exactly the same. You become the only game in town, and, therefore, you get to control the price. You’ve got two choices on a futures contract. You can deliver this stuff if you can find it, and you can offset. So, you cannot gain a monopoly. You cannot control prices unless you are assured somehow—and it becomes an illegal manipulation when it’s through your own efforts that you assure it. You have to be sure that when push comes to shove the people in the market on the opposite side have to come to you to get out. So you do have both the cash supply and the futures position in combination. The bottom line is taking all that into account, adding all those figures up, and asking if this guy was a monopolist. Was he the only game in town?

**Bill Hagerty:** I would just like to point out the power that the short has in influencing the price of the market from his dominant short position. In a case a few years back where there was a dominant short interest in the market and they didn’t cover in the last three days of trading, the influence in the market would be this. If they had started to cover, you could have conceivably a $.30 move in the market. By withholding their buy orders from the market for three days, the last day the market was able to move only $.10 per bushel. By the long remaining long that last day, he was put in the position of defending his long position even though he wasn’t in the position to make any money in the market.

**Roger Gray:** That’s a very good point, Bill. The short has a two-fold incentive not to meet his contractual obligations. One is that the longer he waits, the more protection he gets from limit moves. Secondly, even if he does have to pay a higher price, he knows then that the CFTC will come in and arrest the long.

**Steve Storch:** Not questioning anything you’ve mentioned about the historical cases, but looking toward the future and using silver perhaps as the a typical example involving various allegations and the commission’s definitive statement that there wasn’t sufficient market concentration by any individual to establish a manipulation, squeeze, or corner, I
wonder if we are getting into a situation where perhaps the traditional legal and economic thinking has to be revised along the lines of a shared monopoly concept? This concept would agree with Phil’s analogy of a manipulation where there are various active, particularly longs, of such magnitude that, even though a conspiracy can’t be proved, the effect of their actions would be the same as if they were acting as a unit and, in fact, be involved in an economic if not a legal manipulation.

Phil Johnson: Steve, you’re right. The law to date has not placed great emphasis on the size of the trader. In retrospect, it will frequently point to that as some indication of having had the power to do what one is accused of having done. But I don’t think on the front end, that is, before any preliminary judgment has been made as to whether or not I am a billionaire or a bum in the market. Now, for every billionaire’s dollar that enters the market, there has to be another dollar entered on the other side. So, it’s not as if one could develop an enormous long open interest against the small short open interest. They’re going to be exactly the same. But the ability to move that situation, that is, to change the open interest drastically and suddenly, increases markedly when you have an enormous position in the market.

Steve Storch: Specifically, I was thinking about the courts’ suddenly arriving at a magic number of what percentage of the open interest will in fact constitute a manipulation. Suppose there are three traders similarly situated in the market. While they don’t have that number individually, in the aggregate they still can exert the same force. Does it make a logical distinction if they have a communality of interest even though there is nothing to link them to a conspiracy?

Phil Johnson: That’s basically an economic question. Frankly, I don’t know how much significance to attach to the fact that there are perhaps three big traders in the market. Needless to say, there’s a great deal of aversion to the concept of developing an automatic percentage trigger point at which time you exercise all the commission’s emergency authority or an exchange’s intervention obligations in matters of that nature. For one thing, the open interest is changing all the time. So it’s like trying to describe a wave which changes all the time. A percentage approach probably doesn’t work, and most of the industries generally opposed it for that reason. I’ll leave to Roger the economic question about the market presence of big traders with the potential of moving not in concert but by coincidence in tandem.

Roger Gray: I’m not much enamored of the shared monopoly or tacit conspiracy approach to these matters. I think that the Federal Trade Commission has gone too far with this concept, and I’m speaking really not so much as an economist as I am as a citizen.

Tom Hieronymus: My question concerns John Mielke’s first question about the rights of the short and Phil Johnson’s observation which was in the form of the question: What is a long to do? Phil, you answered that he has an obligation to pull his punches. Can you elaborate on that? To what extent must he pull his punches, and how is he to know how hard he is allowed to hit back? This notion does finally recognize that these markets are conflictive between individuals and that money is at stake. If a boxer deliberately hits another a death blow, that’s presumably something he shouldn’t do. But how hard is he allowed to hit him?

Phil Johnson: As a matter of law, he is allowed to hit him up to the Commission’s pain threshold, which is very difficult to perceive in advance. Roger’s example of the salad oil situation indicated that the pain threshold can sometimes be infinitely high, and at other times can be very, very low. If the market opened on the final day of trading, and the shorts had forfeited their opportunity to deliver, and the price went up the daily limit, I would guess the commission investigators would be in the houses of the longs within a matter of days. Whether $.05 of the $.10 move would have produced the same result I do not know. But certainly if the market went up the limit during that day, that would almost certainly trigger an inquiry from the commission.

Tom Hieronymus: But what if the market goes up the limit and the long does not sell anything?
Phil Johnson: I don’t know of any instance, although I stand to be corrected, where a manipulation charge was brought when the long did not offset. Do you know of instances of that nature?

Tom Hieronymus: Yes, the Cox-Frey instance.

Phil Johnson: But that case was found to involve no manipulation.

Tom Hieronymus: No, that hasn’t been found yet.

Phil Johnson: Well, that was the decision of the exchange and there’s no reason to think that the outcome will be any different the second time.

Anne Peck: Has there ever been a price manipulation charge that did not involve deliveries?

Roger Gray: Yes, though I’m not sure if it ever got to the courts. A charge was brought and there was a consent on it as well, as I recall. It involved a grain firm which was helping to price its export sales of wheat, and was bumping the market at the close in Kansas City. You do 50,000 at the close in Kansas City and thereby affect the price of your 10 million export sales. There have probably been others too.

Tom Hieronymus: If Roger is talking about December 1956 wheat in Kansas City, part of that game was heavy deliveries by the firm that was accused in addition to other things.

David Kass: There are at least two other cases that didn’t involve delivery. One was a case of a person in the egg market in which he bought trades at the very last minute of trading and thereby bounced one future just for a few minutes. It was corrected the next day. Another was November ’79 silver. There were charges of manipulation in the case of silver orders entered late in the trading session. The Comex market had already closed, there were large orders entered on the Chicago Board of Trade market, not even in the delivery month.

My question concerns Roger’s remarks on the March wheat indicating that the CFTC probably acted hastily in ordering emergency action because it didn’t have all the information. Obviously, the CFTC always operates in an imperfect situation. One never knows even what the open interest is at the end of a trading day, but has to wait until sometime during the following trading day. Cash prices are many times difficult to come by, and they don’t represent the par grade of wheat located in the warehouse. One always has to look at other cash prices, and then approximate. One is always talking to grain millers, exporters, and anybody else, trying to assess the availability of supplies, etc. What other things should the CFTC look at that it didn’t look at? And how can it do this on the spot without adequate time to arrive at valid conclusions?

Roger Gray: Well, I grant you that one can always learn more retrospectively. It seems to me, however, that the paucity of information that you have to deal with would make you that much more reluctant to jump in. As to what should have been looked at, if you haven’t seen my paper on that subject, I’d be glad to send it to you. There I am arguing not that the indicators mentioned at the time of the congressional hearings were necessarily bad selections, but that they were not placed in any context. When you place them in context, you find that they didn’t indicate what the commission thought they indicated.

Jim Fox: I think that manipulations other than in the delivery month are largely academic, or instantaneous and quickly corrected by the spreaders if the market has any liquidity at all. As for the delivery months, I think there are a number of biases. First of all, there’s an inherent bias against the long. There is a bias, as Phil brought out in his remarks, in favor of the authenticity of the cash market. I think there’s a bias in the courts in favor of a government expert over somebody like Roger here if he is put on the stand. I think there are biases too—and this is perhaps somewhat inflammatory—against the personalities involved in the market. They have been demonstrated, and I could back that one up. There are biases in favor of the small speculator, the shoemaker, the doctor, the lawyer who’s in the market, and against the so-called professional or commercial. There is a bias built into the market in the delivery system against
the short. As an example, just take a cattle future where it costs about $0.02 to deliver. So, there's an automatic disparate level between the cash and the futures. I don't say this to be controversial or anything else; I just think that it's something that we have to recognize. It's the reality of the situation that, when we're looking at futures markets, we have these biases to which the CFTC—and before it the CEA—is certainly subject. The CFTC is subject to the bias in favor of today's so-called consumerism and perhaps against the producer. I think economists, lawyers, FCM's, and commercials have to recognize those biases. It's largely truisms which I have spoken here, but I think it's worth restating to make sure that all of us kind of understand them.

**Phil Johnson:** The futures market is, in theory, an anonymous market. But you're quite correct that in reality it is not. When an analysis is made of a potential or a suspected past problem, the specifics of what's happened in that market—the specifics of who's in that market—become very deeply involved in the judgments that are made.

**Tony Vignola:** I'd like to comment on this nondelivery month manipulation problem which Roger referred to when he answered John Mielke's question. First of all, I feel that this is an important area. You referred to the fact that we should be looking at when prices are out of line. I know that prices in the financial futures area are frequently out of line. I think that is where the problem may lie. Everybody knows that everyone's looking in the delivery month, so they're going to be doing whatever they're doing in a nondelivery month. Can you comment further about evaluating nondelivery month prices that are out of line? We find they are out of line frequently and for extended periods, so I don't think that alone is adequate.

**Roger Gray:** Well, I haven't any further comment other than to reiterate what I said before. Namely, that when this occurs—laying aside the question of manipulation and just saying that prices are out of line—they are most likely to be corrected in the delivery month. That's also part of the nature of a futures market. Often this will mean that you have abrupt price changes during the delivery month.

The frequency of extreme price changes is much greater in response to Anne's question on the nondelivery months—the case I wrote about in this paper, May '59 wheat, was a nondelivery and a manipulation was bought in that case. The long was blown out of the market by deliveries, but the price had collapsed long before then and the allegation, as I recall, did not even extend into the delivery month.

**Steve Storch:** Roger, how would you define a price which is out of line?

**Roger Gray:** Any price which does not reflect the underlying supply and demand.

**Steve Storch:** It is frequently stated that futures follow the cash market. They do not, in fact, follow the cash market. Even if they do, is that statement a valid indication of anything? In many cases, there are the same major participants in the futures markets as in the cash markets and they follow exactly the same trading course.

**Phil Johnson:** It strikes me as a definite gain to have the same people in the cash market as are in the futures market, because that way the futures market will reflect the activity in the cash market even that much more closely. I don't profess to be able to answer a question about which follows which. I think the answer is somewhere between cash follows futures and futures follow cash. I think there is an interrelationship. I think the existence of a delivery obligation means that sooner or later the two have to converge on each other. Which one is accelerating in the direction of the other faster, I'm not really not sure. But the relationship has to exist, and I think the reason why the industry makes much of the relationship between the two is that there are any number of other respectable investments in this world that we can get into that have no such price discipline whatsoever, the most noteworthy being the stockmarket. IBM's stock is never converging only on the sentiment of the stock market at the time. So it is rather ruthless in terms of the price; it is traded at whatever people guess it's worth, and there is never any day of reckoning as to whether they were right or wrong. The industry is saying that there is a real world out there, and that sooner or later the
two have to recognize each other and reflect each other's interests.

Warren Lebeck: The gentleman from the Treasury seems to think that the financial futures prices were out of line a lot. I presume he was referring to his judgment of what prices should be, and, standing on the outside, I have as much criticism of what the Treasury's judgment has been over the last few years as he could possibly have of futures.

Also, I'd like to point out to this gathering of mostly economists that four people were in a position to vote on whether or not the March '79 wheat market should be closed. One of the four was an economist and he voted not to take action.

Allen Paul: I understand a number of contract proposals have been filed to trade in common stock bundles. Do they in fact propose that delivery be made? If they don't propose that delivery be made, then what is the mechanism to be used?

Phil Johnson: There are a variety of different proposals. Fundamentally, it is not a bundle of stock that will be traded. It's a price index in securities based upon prices being made at the New York Stock Exchange or somewhere else. This is one of the more interesting applications of the new definition of commodity under the Commodity Exchange Act of 1974. We're not talking hard commodities anymore; we're talking about anything traded for future delivery. With the indexes, people are being afforded an opportunity to trade in the future value of assets with no right to claim the assets—no right to the delivery of the assets at all. There is only a right to predict and put one's money on the general direction of the value of that bundle of securities which one is never entitled to receive. As I see it, there's nothing under the Commodities Exchange Act that precludes that from occurring since the definition of commodity today includes rights and interest and an infinite variety of intangibles including value. As I understand it, under these contracts there will not be any delivery of securities as such. And the general perception is that there is no need for it.

Roger Gray: Allen, in cases in which a financial settlement is being proposed, the basic question is whether you have a sufficiently broad and liquid reference point so you don't have fears of manipulation of the Dow Jones index or whatever it is that you're going to trade. At the other extreme, though, I think there's also the question which you yourself have addressed in one of your earlier manuscripts. That is, what about the situation in which you're not comfortable in saying that the cash market reference point is totally broad and liquid, so that you're not totally comfortable with financial settlements. I'm speaking of your proposal on potatoes. If your feeling, however, is that the difficulties are such in getting a potato futures contract to work, that financial settlement according to the kind of formula you proposed might avoid some of the recurrent problems in that market, then I would ask some questions. First, can you have good confidence in your cash market reference points? And, secondly, can you devise a formula for giving longs and shorts the option of the financial settlement? I think it is a very intriguing idea. Most futures markets don't need to consider financial settlements, but it's conceivable that one like potatoes may need to. On the other hand, a futures market in a common stock index doesn't need really to consider delivery, it seems to me. Delivery per se just makes a cumbersome addition to the operation of the future market. Anybody who gets the right financial settlement can go buy that bundle of stock if he wants to.

Don Bidgood: When I was the director of the CBT Office of Investigations and Audits, I participated in the activity of "jawboning"—the exchange's efforts through the Business Conduct Committee and OIA to bring about an orderly liquidation of a market. In connection with that, we say, "letting the short out," the question would often be put to these various people: "Do you have orders in the market?" If the answer was no, further jawboning took place.

Roger Gray: Were you protecting the shorts too? I mean, have you adopted the CFTC philosophy?

Don Bidgood: No. I'll say that in my four years we were meticulous in contacting an equal number of bushels of longs and shorts every time.
Research on Speculation Seminar Report

November 6 and 7, 1980