The Prospects for Trading in Live Hog Futures

by
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Not many years ago Everette Harris appeared to be one of the most snake bitten individuals in the world. Having foresaken his career as a university economist to become secretary of another commodity exchange nearby, he went on to become president of this much smaller struggling market for butter and eggs. A subsequent reorganization of the big market found him faced with the virtual disappearance of this market. Butter futures had long since fallen prey, as he mentioned this morning, to the Government Price Support Program. The onion futures market, which had begun to thrive here, was abolished by Federal legislation in what still stands as one of the more flagrant, if not yet far reaching abuses of the Democratic process. The refrigerated egg contract was dying the death of all markets that can no longer serve a hedging need. Everette Harris was sitting at the bottom of a deep and quiet well talking mostly to himself about such unlikely prospects as futures trading in pork bellies, and even of all things, live animals. Not many assistant professors in remote cow colleges would have traded places with him in, say, 1960. What you saw on the trading floor this morning was testimony — though hardly mute testimony — of the results of perseverance in the face of really very long odds. It may yet turn out this year, or next, that this market's center pit will be the world's largest in dollar volume. This depends largely upon soybeans or corn to come out of the doldrums on the Chicago Board of Trade. I say this not just as a personal tribute to Everette, which it is, but as a reminder that every successful futures market that I know anything about has arisen in similar circumstances of apathy, suspicion, hostility, and wide-spread misunderstanding.

Sometimes, as in the case of Kline Hall in Australia, the single-handed efforts of one person have overcome all the obstacles. More frequently, a few people have been involved, but in any case let us remind ourselves that markets do not just emerge as a free good.

Having said this, I would like to put Everette back down at the bottom of that well. I know he will get out, but it seems that the best function I can perform here today is to point out what seem to be some of the obstacles that he is going to have to overcome in developing the live hog futures contract.

Speaking in 1965 before a Futures Trading Seminar, I set forth a few general propositions under the heading, "Why Does Futures Trading Succeed or Fail?" I introduced my analysis with the disarmingly candid confession that "I don't really know why futures trading succeeds or fails." Without pretending that I have since discovered the answer to this important question, I do wish to expand somewhat upon the general argument there presented, after first summarizing it very briefly, and having earlier provided copies of that paper for participants in this study conference.

Reading from evidence of price behavior on a number of markets, it is clear that persistently biased price estimates, whereby buyers or sellers pay too much for using futures markets, provide the leading explanation for the failure of some markets to develop. The newer markets, if they are to prove viable, have always had to overcome this bias; whereas its persistence often augurs the complete demise of the market. Since hedging use is usually predominantly from the short side, downward biased price estimates, which may make hedging costs prohibitive, are commonly interpreted as reflecting insufficient competition for speculative profits.

The possible reasons for imbalance which I adduced in 1965 included contract deficiencies, market power, or simply inadequate speculation. These may, of course, be interrelated and overlapping. If hedging firms, for example, possess inordinate market power, they may influence contract terms to their own advantage, and thereby discourage speculation. Contrariwise, speculators may operate a country club market, discouraging additional competition in order to preserve monopoly profits.

While I continue to believe that the foregoing is a useful framework in which to appraise futures market performance, it will not help us very much in our present appraisal of the live hog futures market. This market has been operating for too short a period to enable statistical detection of the absence or presence of bias. Moreover, even if such imbalance could be presumed, I personally know too little about the trading composition and the contract suitability to enable me to adduce any reason for bias. Ascribing such reasons is a tenuous matter at best, requiring intimate familiarity with a particular commodity trade.

I should have wished to expand and modify the earlier framework in any event, but this is almost mandatory in the present context. In general, I incline to stress two additional factors which were only hinted at in the 1965 paper, and to reemphasize a point made in that paper which is still insufficiently appreciated, judging by the earlier live hog symposiums.

The first additional factor which I would stress may be called the institutional precursors of futures trading. If we ask a somewhat parallel question, on which I am also not expert; namely, what makes marriage succeed or fail? — We quickly appreciate the importance of institutional precursors. While the terms of the marriage contract have some importance, and the dispositions of the contracting parties have great importance, in our given environment; we should hardly expect marriage to succeed overnight in a society which had no institutional precursors. If monogamy was already practiced to a degree, and family units were already reasonably cohesive, we might expect marriage to catch on; but in a completely polygamous and polyandrous society where child rearing was a state function, marriage would probably not be an instantaneous success. Similarly, it seems to me, we need to ask what the situation was before futures trading was introduced. Some of the more important elements of hte pre-existing situation are suggested in the following questions:

(1) Was forward trading already widely practiced? There are of course many situations in which forward contracts are used which are not futures contracts. Futures trading

initially arose out of such forward trading, as a considerable refinement of the precursor. Buyers and sellers who engage in forward trading have already explicitly introduced the time dimension into their decisions, and are therefore better able to recognize the advantages of futures trading, as a safer and more convenient method of accomplishing the same thing.

(2) Is merchanting extensive; i.e., is there between producer and processor, or between processor and consumer, a well-developed business of buying and selling a commodity without essentially changing its form? This might subsist because geographical assembly and dispersion is important, or because temporal redistribution is called for. This is important because very large volumes at low unit margins place great emphasis upon price. Commodity description is usually easier because the time dimension is so apparent to one who is not affecting form utility significantly.

(3) Is there a recognizable group whose relationship to growers is such that they are likely to use futures on behalf of growers, or in furtherance of their contractual relationship with growers? Alternatively, are individual growers large enough, and sufficiently knowledgeable, that they will themselves be disposed toward futures hedging?

More institutional precursors might be mentioned but these have influenced the development of some futures market, and they may help us assess the experience and prospects of live hog trading. Before focusing upon that, however, let me mention the other additional factor which I incline to stress, after which I will be in a position to reemphasize a point made in the 1965 paper. Then I can attack what I think is a rather common *mistaken* interpretation of the live hog futures performance, and conclude by presenting two elements of what may be a correct interpretation.

The second factor has to do with the functions (the modus operandi) of speculators and hedgers in commodity futures. Holbrook Working long ago expressed his puzzlement over the observed fact that hedging in commodity futures so consistently elicited the appropriate levels of speculation. Given that the magnificent risk premiums sometimes postulated as the mechanism whereby this facilitation occurs simply do not show up in the statistics, he was long unable (and I was longer unable) to provide a clue as to the causal nexus between hedging and speculation. One conclusion which is abundantly supported in *all* the evidence, however, is that futures markets are hedging markets. So clear had this become by 1960 that Working wrote an article entitled, "Speculation On Hedging Markets," deliberately abandoning the less descriptive term "futures markets" for the case in which he sought to quantify the hedging-speculation relationship.

Not until last year, however, when both Working and I presented generalized interpretations drawn from two different approaches to two different commodities, was direct evidence provided which will require revision of some notions about the relationship between, and the characteristics of, speculation and hedging. It would strain both you and me far too much if I were to attempt to summarize that evidence,[1] but it is not amiss to briefly summarize the conclusions to which it points.

A highly successful long time career speculator once described his approach to me in the following words: "I try to find out what the hedgers are going to do, and do it first – if I tried to forecast prices I'd be dead." I appreciated neither the import nor the generality of the statement at the time, but in retrospect it is a pretty concise statement of what Working and I are saying (much less concisely). Anyone who gives it a moment's thought will realize that the temporal re-allocation of resources which is supposed to be the major benefit of speculation is actually *performed* by hedgers in this institutional arrangement. Speculators are variously viewed as: (1) providing the price forecasts (or determining the prices) which make it possible for hedgers to adjust inventories appropriately, (2) assum-

[1] Roger W. Gray, "Price Effects of a Lack of Speculation," and Holbrook Working, "Tests of a Theory Concerning Floor Trading on Commodity Exchanges," *Proceedings of a Symposium on Price Effects of Speculation in Organized Commodity Markets, Food Research Institute Studies,* Stanford University, Vol. VII, Supplement, 1967.

ing the risk of price change, thereby enabling hedgers to tend to other business, or (3) providing market liquidity (or simply making a market). As a matter of emphasis, rather than categorical disagreement, it is probably much more accurate to say: (1) futures prices are determined primarily by hedging, hence such "forecasts" as are implied in futures prices are the "forecasts" of hedging firms (2) most professional speculators (floor traders) accept this fact and try to profit by anticipating hedging use — whether minute-to-minute, day-to-day, or week to week (3) the avocational speculator, and the commission firm which serves him, may undertake price forecasting, albeit probably with less success and less influence than that practiced by hedgers.

This leads me to stress once again a statement in the 1965 paper, "The first prerequisite to the success of futures markets is hedging use." I doubt very much whether the framers of the live hog contract took seriously the admonitions of Professor Bakken and Colonel Lacy regarding the relative importance of hedging and speculation, stated at the earlier symposium relating to live hogs. Professor Bakken said, "the academicians parroted this line of reasoning going so far as to say that hedging was absolutely essential to the existence of a futures market. I regard the function of hedging as purely incidental to the existence of a futures market." The pejorative "academician" (like the pejorative "theorist" which appears elsewhere in his paper) strikes me as a curious way to dismiss conclusions based upon evidence,[1] while stating conclusions unsupported by evidence. I do not believe in any event that the contract was written for the public, nor do I believe that the relatively slow growth in live hog futures trading can owe to any factor other than a dearth of hedging use. Not even the refrigerated egg futures market, which came closer to it than any other, could continue to flourish without hedging use; and I'm sure the directors here were fully aware of that fact.

Beyond this, there are only two suggested explanations for the slow growth of the market (which I am careful not to call "failure"). In terms of the institutional precursors, the live hog contract may have been introduced prematurely. Neither forward contracting nor merchanting were prevalent, so a good deal had to depend upon the changing size of the feeder operation, and more particularly upon its changing organization. In both these respects, cattle feeding was much more advanced and more adaptable to futures trading. This suggests that the live hog contract could yet attract greater usage as the hog-feeding and related enterprises change.[2]

Less optimistically, it seems to me that another factor inhibiting the growth of live hog futures is the fact that you have a thriving pork belly market. Hog and pork belly values are highly correlated, and anyone who now wishes to find a reflection of hog values in futures can have a pretty good one in a very active market. It is my impression that a successful flour futures market was never established because wheat and flour prices correlate closely. A highly developed wheat futures market already existed. Moreover, it is my impression that barley futures died out because corn futures afforded a close enough hedge at a lesser cost. Wool tops futures in New York have been waning as greasy wool trading increases, etc., you don't need the one — at least not that much — when you have the other. The only situations in which a commodity has been successfully traded in futures at successive processing stages are (1) soybeans and products (where the separate product values don't correlate highly (2) cotton and cottonseed products (again, lack of correlation in prices) and (3) greasy wool in some markets and wool tops in widely distant markets (not in the same location). I do not wish to sound discouraging on the feeder cattle contract, or on any other prospects for futures markets, but must we not admit that futures trading tended to concentrate in one market at one place, and that markets for products with high correlated values be redundant.

While on the subject of this relationship, however, I ought also to acknowledge that the pork belly market experienced slow early growth. It was only after substantial revision in contract

[2] See especially, Holbrook Working, "Whose Markets?—Evidence of Some Aspects of Futures Trading." *The Journal of Marketing,* Vol. XIX, No. 1, July 1954 and Roger W. Gray, "The Importance of Hedging in Futures Trading; and the Effectiveness of Futures Trading for Hedging," in *Futures Trading Seminar: History and Development,* Vol. I, ed. by H. H. Bakken et al. (Madison, Wisconsin, 1960).

terms, as brought out in the study by Mark Powers[3] that the pork belly market grew spectacularly.

As an afterthought, I might better qualify a statement that was made earlier about hog feeders having to become larger before they would be in a position, or be disposed, to make better use of futures markets. The important point for futures market growth is that the firms be large, not too large though, because at the other extreme one of the precursors, or one of the conditioning factors which helped the development of livestock and livestock products trading on this Exchange, was a movement in the other direction, de-concentration in the meat packing industry.

Finally, events on this market, of all places, ought to teach me not to be a Cassandra. Those of us who believe better marketing is desirable (that should include all of us) ought to seize whatever opportunities we have to study this market in far greater depth than I have and to make more constructive suggestions than mine have been.

[3] Powers, Mark J. "Effects of Contract Provisions on the Success of a Futures Contract," *Journal of Farm Economics,* Vol. 49, No. 4, November 1967.

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