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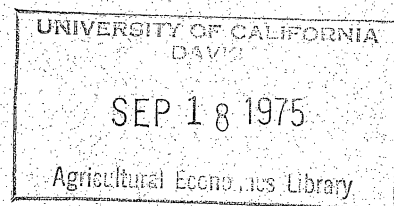
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*Shirley
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REPORTING CASH GRAIN PRICES
Issues and Their Possible Resolution
By
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Information about prices and price reports themselves are a fundamental means of communicating about economics. At times, prices are a part of an analytical framework being used to describe an economic process. At other times, prices are a result, representing the outcome of some economic activity. Sometimes they play both roles. In any case, prices are generally assumed to accurately define the economic phenomenon they measure.

This paper reviews a few of the ideas that relate to the validity of that assumption. That is, the paper examines a number of problems encountered in collecting and disseminating price information. The purpose is to help clarify issues being considered in a current study of cash grain price reporting.¹ For that reason, consideration is limited to cash grain prices although many of the problems are evident in price reports for other commodities.

Nature of the Problem

Problems with the current system of cash grain price reporting were identified in a pilot study of the Chicago cash corn market conducted by ERS for AMS during November and December 1974. Current USDA price reporting efforts at Chicago focus on the spot trading on the floor of the

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Chicago Board of Trade. The study found that the total quantity of cash corn traded at Chicago is substantial, but that the spot market for on-track grain accounts for only about 2 percent of total corn receipts in the Chicago area. In contrast, about 90 percent of the corn coming to Chicago is in fulfillment of previously executed "to-arrive" contracts-- and these carry a wide assortment of terms pertaining to the time of delivery, place of delivery, mode of transport, and type of billing when shipment is by rail. Moreover, members of the trade do not seem to find the current reports from Chicago very useful in their pricing decisions. Generally, the problem is to determine what to report in a dispersed and heterogeneous market so as to provide users with more complete price information.

Hypothetical Illustration--A Representative Quotation²

Suppose five different market participants indicate that they traded No. 2 yellow corn at \$2.38 (buyer), \$2.43 (seller), \$2.40 (buyer), \$2.38 (seller) and \$2.42 (buyer) since yesterday's communication with the market reporter. What should the reporter quote as the day's price? An average? An average weighted by the quantity involved in each transaction?³ The \$2.38 figure, because apparently it is the only trade reported by both the buyer and the seller? The range? All of the trades? Maybe the reporter should try to learn more about the trades reported to him?

Suppose the reporter learns that (a) the \$2.43 price is for delivery in 10 days, the others for spot delivery, (b) the \$2.38 prices do not belong to the same trade, the others also remaining unconfirmed by the other party to the trade and (c) the \$2.40 and \$2.42 purchases were by

processors, the other trades by companies with port elevators. Now, what should the reporter do? Quote a spot price and a 10-day price? Quote the \$2.38 price because it was mentioned more than any other price (twice)? Quote a processor price and an export price?

Suppose the reporter learns more about the five trades. One was executed yesterday afternoon, after yesterday's report, the others at various times this morning (during a period when the futures market moved through a several cent range). Two were between country elevator sellers and Chicago buyers (one shipping by rail, one by truck), the others between Chicago buyers and sellers. One was for corn grading No. 1 except for moisture, the others presumed to grade No. 2. Should the reporter consider any of this information as the quotation is prepared? If so, how?

Let us add one more complication. What should the reporter report when there is nothing to report? That is, suppose on any given day participants indicate there were no transactions. Should the reporter make a report? If one is made, should it indicate that it is based on bids and offers?⁴

Cause of Problem

The gradual and continuing shift from terminal market (especially consignment selling) to direct selling is the primary factor contributing to the increased difficulty in reporting cash grain prices. This shift has a number of aspects.

First, a smaller portion of the marketable supply is routed to terminal markets. For example, in the 1960's, U.S. corn production averaged 4,101 million bushels, a third above the 3,014 million bushels registered during

the 1950's. During the first half of the 1970's production increased another third, averaging 5,133 million bushels. Meanwhile, Chicago receipts, after an initial 15 percent increase during the 1960's (133 million bushels compared to a 116 million bushel average during the 1950's), fell to 85 percent of their 1950's level (99 million bushels) during the last 5 years (1970-74). Such an absolute and relative decrease in Chicago receipts (falling from almost 4 to less than 2 percent of U.S. production) generally reflects a change from "the market" to "a market." Now, few receipts are reshipped to eastern markets.

Similarly, there are fewer buyers in the Chicago market. A market with few buyers further complicates the reporting of market prices. Each is trying to acquire grain as cheaply as possible. And, each is also aware that the actions of one influence the actions of others. At present, the Chicago market essentially consists of three "good water houses" for exporting grain, two corn processors, two soybean processors and two flour mills. In addition, there are fewer than half a dozen cash grain merchants that are in the market on a regular basis.

Finally, the grain at a terminal market is not as homogeneous as it once was. In the past, more grain arrived by rail. Transit and proportional features of the rail rate structure were designed to accommodate shipment through major terminals. Consequently, they facilitated price reporting in those markets. A reporter could circulate among the brokers and merchants and obtain adequate information for issuing a report. Quotations included the nature of billing associated with various trades. Present rail rates used to ship grain to Chicago, while simpler conceptually (point-to-point or mileage related), do not have the features that facilitate price reporting.

Similarly, the increasing use of trucks adds to and complicates the problem of price reporting. Truck transportation is based on a rate structure that corresponds to the newer distance-oriented rail rates. Furthermore, truck receipts (deliveries) are generally in fulfillment of previously executed "to-arrive" sales. In short, modern rail rates and truck transportation reflect direct selling instead of terminal market exchange. As direct selling increases, the market news reporter is faced with a more fragmented market structure that complicates price gathering. More often than not, buyers and sellers are not in face-to-face contact with each other. Trades are executed by telephone with contracts confirmed by mail. A market reporter finds such information difficult to verify, if not to collect. Frequently, sellers are in producing areas and only the buyer provides information to the reporter.

In summary, the shift from a terminal operation to direct selling is nearly complete. Since the pilot study indicated that only about 2 percent of the corn receipts in Chicago are exchanged by spot trading on the floor of the Board of Trade, a basic question is raised about whether the USDA should continue to report the CBOT spot market.

Furthermore, increased price volatility in recent years has increased the demand for quality market news. Instead of moving only a fraction of a cent in a given day, price movements of 20 cents or more are not uncommon. In the context of the previous discussion, this increased price variability further lessens the homogeneity of information available to the price reporter.

So, in short, the reporter is facing a situation where he encounters fewer (especially easy to report transactions) but more heterogeneous transactions.

Provision of Price Information

Chronologically, a market reporter collects information, analyzes it, and prepares and disseminates a report. Before we address issues associated with each aspect of a reporter's activity, we give a brief description of uses that justify the need for price information. Each is described briefly since a more comprehensive treatment is beyond the purpose of this paper.

Price quotations guide the flow of grain to its ultimate market. That is, merchandisers look at prices in various markets as they decide where to buy and where to sell. While it is true that some larger companies have their own information systems, it is also true that many do not. This is the critical point. One of the basic premises of the perfectly competitive economy is complete information. While complete information may not be attainable, market news enhances the competitive environment by increasing the general level of knowledge. This factor alone may be sufficient justification for reporting market news. But, it is a use that requires accuracy. And besides being accurate, it must be timely, if it is to be of much use. Market participants use information on a regular and continuing basis in their merchandising operations. To them, it is today's market that is important, yesterday is history.

Cash price quotations also perform a controlling function that assures proper operation of the futures markets. If aberrations are observed in the futures, price manipulation investigations are launched by the Commodity Futures Trading Commission (CFTC).⁵ Price quotations have been used also to improve delivery or settlement provisions of the contracts themselves. This need continues. Again, accurate information is required. The administration

and regulation of futures markets also requires timely market reports, especially if the information is used for injunctive or settlement purposes. Still, timeliness for this purpose may allow a delay of a day or more while for the merchandising use, timeliness allows only a few hours.

Finally, accurate information records a moment in history. Many legal claims and insurance adjustments are settled on the basis of market news reports in the credit, insurance and transportation industries.

Issues in Disseminating, Collecting and Reporting Cash Price Information

Even though dissemination is the last step, we mention it first because what is disseminated influences what is collected and reported, as well as how and when it is collected and reported.

Disseminating Cash Price Information

Ideally, a report would contain as much information as needed to convey the salient features of the market being reported. In fact, this would seem to be a requirement, if the first justification, that of enhancing market competition, is to be satisfied. Manipulation investigations may require even more detailed information. A summary market report may not reveal the exact transaction information needed in regulatory work. Whether one report can satisfy both needs is a question requiring further study.

Separate reports for different purposes might enable each to be more useful. Reports of bids and offers might further increase the competitive nature of the market. Evidence concerning individual transactions, after use in quotation preparation, probably would not be disseminated through usual media but forwarded directly to the regulatory agency. Such summary reports would approximate a weighted average of daily transactions. Current

reports of bids and offers, then, if desired by market participants, might be made available by wire and radio-TV at intervals throughout the day rather than via a single daily release as at present. Recorded telephone reports could be made available on toll free numbers.

In short, if it could be agreed that the desired output is a number of verbal reports for trading purposes and a written report for historical documentation, market administration and regulation purposes, then the question would become one of effective and efficient organization to collect and report such information.

Collecting and Reporting Price Information

Earlier, we suggested a report should contain information that is useful to those receiving it. Ideally, this would be an accurate and thorough summary of market activity transpiring since the last report. Comment on three questions illustrates the kind of issues accompanying pursuit of this goal.

Should volume information be collected and reported? Generally, there is little interest in volume information when large quantities are traded in narrow price ranges. But, during periods of increased price volatility, volume information would enable approximation of a weighted average price, a concept that puts small and unusual trades in a different perspective. Problems associated with complementing price with volume information need to be identified so the merits of the issue can be assessed.

Should collected information be verified before it is reported? Normally, in terminal market exchange, a price reporter could expect to encounter both parties to a transaction, using one to verify information

provided by the other. In various kinds of direct marketing, however, buyers and sellers may communicate only by phone or wire, never seeing each other, let alone a market reporter. If more than a sporadic degree of verification is desired, reporters will have to increase the intensity of their coverage; that is, the number of their contracts (telephone) with participants, or request participants to indicate their trading partners. Initial concern might focus on the amount of verification needed to assure accuracy.

Should market participants be penalized for providing incomplete or inaccurate information? In broadly traded terminal markets, price reporters did not need a report of each trade in order to prepare an accurate report of market activity. But, in more thinly traded markets, a reporter may accumulate inadequate information for confidently reporting market activity. This is especially possible, and understandably so, when prices are volatile and/or when markets have few dominant buyers. Fortunately, in many grain markets characterized by few buyers, there are many sellers and acceptable voluntary price reporting schemes might be developed. But further decline in the amount of information available to report could influence the kind of report that can be made. Some form of penalty system for inaccurate or incomplete reporting might increase the amount of information available to the reporter. But, it is not clear that the additional information would otherwise simplify the preparation and issuance of a report.

Epilogue

We have not faced all of the relevant issues in reporting cash grain prices. But, tentative answers to two questions serve as working hypotheses.

One pertains to Chicago. More often than not, one end of the place dimension of a transaction is someplace else. So, Chicago is part of a larger market. It cannot be considered alone. Thus, market definition needs to be an integral part of an attempt to improve market information.

The other pertains to the role of market information. Our highly specialized modern economy requires highly specialized information tailored to the use made of it. Different uses, notably for trading in the market and for administering and regulating the market, cannot thrive on the same (and simple) information. A clear definition of uses also needs to be an initial step in any attempt to improve market information.

Footnotes

¹ A joint AMS-SRS-ERS effort is examining the price information collected and disseminated by the Market News Branch of the Grain Division, AMS, USDA. The initial phase focused on the Chicago market. Consequently, it is the example used in this discussion.

² Interviews conducted as part of the pilot study indicated the questions posed in this section represent fairly typical market situations. The reporter may not face all of the problems in any one day but over a period of time will encounter many of them, including several combinations.

³ This concept underlies some Livestock Market News reports that quote a range and "mostly" figure somewhere in the range. But volume information has not been collected by grain market price reporters thereby precluding preparation of such a report. The predecessor to the CFTC, the CEA, used weighted averages in manipulation investigations and obtained data for subject periods under subpoena powers provided in relevant paragraphs of their enabling legislation.

⁴ Currently, "nominal"--in name only--is used to report an inactive market, e.g., \$2.41. Two dangers accompany this procedure. Users may not know the meaning of the symbol (n) or the word. And the symbol or its definition may be omitted by some of those voluntarily disseminating a report.

⁵ For additional information on the role of cash price quotations in futures market surveillance activities, see Chapter 4 entitled "Improved Cash-Pricing Information Needed for Surveillance of Futures Market" in Improvements Needed in Regulation of Commodity Futures Trading, a report to Congress by the Comptroller General of the United States, June 24, 1975.