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Pricing Eggs at Wholesale in New York City

By Norris T. Pritchard and John O. Gerald

The effectiveness with which the price-making process functions is of major significance in the marketing of farm products. As developments cause changes in location of trading, number and kinds of buyers and sellers, or other attributes of market structure, their importance to the economy calls for careful analysis to learn what effects they may have on prices and on the process of price determination. In several commodity markets in recent years questions have arisen concerning the adequacy and rapidity with which supply and demand changes were reflected in prevailing prices in those markets. This paper reports part of a study undertaken to learn how prices for eggs are made in a particular market, and the ways by which the pricing process is influenced by such changes as the declining importance of central markets as pricing centers. It examines the pricing of eggs in New York City, together with the significance of New York City prices in interior and other markets. It then attempts to suggest ways by which observed pricing difficulties or shortcomings may be moderated or overcome.

THE QUOTATION SYSTEM of pricing eggs has been used extensively by the egg trade for many decades. The Urner family began regular reporting of New York wholesale prices of eggs and several other farm commodities in 1857. Gradually these price reports came to be used regularly by the egg trade as price quotations.¹ Today, large quantities of eggs in many parts of the United States are traded at prices fixed on the basis of the New York wholesale quotations reported by the Urner-Barry Company.² Additional large volumes are priced on the basis of quotations established in other central markets.

¹ THE PRODUCERS' PRICE-CURRENT. The Urner-Barry Company, Inc., New York. Vol. 77, no. 38, Feb. 9, 1934, p. 18. "Of the various products quoted in 'The Producers' Price-Current,' five commodities—butter, cheese, eggs, dressed poultry, and live poultry—have come to be sold to a considerable extent on the basis of 'The Producers' Price-Current' quotations."

² BENJAMIN, E. W., PIERCE, H. C. and TERMOHLEN, W. D. MARKETING POULTRY PRODUCTS, 4th ed. John Wiley and Sons, New York. 1949. pp. 322-3.

The quotation system of pricing has three basic elements.³ One is the general practice of trading a commodity, such as eggs, on the basis of oral understandings or written agreements that specify the terms of trade, including the particular price quotation and differentials, if any, from it to be used in fixing actual transaction prices. Transfers of eggs usually are made before the quotation has been established and the transfer prices are subject to it.

The second basic element of the system is the quotation. Technically, the quotation is a published statement of market values formulated by

³ Among reports that describe quotation systems of pricing farm products are: MANCHESTER, A. C. PRICE MAKING AND PRICE REPORTING IN THE BOSTON EGG MARKET. Harvard Studies in Marketing Farm Products, No. 7-H, Harvard University, 1954; and MARCH, R. W., and HERRMANN, L. F. THE ESTABLISHMENT OF CENTRAL MARKET BUTTER PRICES IN CHICAGO AND NEW YORK. Marketing Research Report 53. Production and Marketing Administration, U. S. Dept. of Agri., 1953.

an experienced market analyst, and, by trade usage, has become widely accepted as the ruling base price for the market.⁴ Quotations are intended to reflect base values for specific, well-defined, nonvariable grades and/or sizes of commodities at a constant level of trading, so that usual trading differentials can be applied readily in fixing actual transaction prices.

The third basic element of the system is the mechanism through which prices are publicly registered and adjusted, enabling independent market reporters to obtain essential information from the trade for quoting prices on a regular, recurring basis. This mechanism, the price registering process, is the principal subject of this paper.

Our prime objective is to evaluate tentatively the price-registering process for eggs in New York City. A second objective is to describe aspects of market organization and trading in eggs that are pertinent to the price registering mechanism. The research underlying this paper was undertaken because of widespread confusion about, and criticism of, pricing procedures in New York and several other large central markets.⁵ Two of the principal complaints of farmers, country shippers, and others are that (1) central-market price quotations generally are below true market values, and (2) central-market prices fluctuate more frequently and more widely than is necessary for efficiency in marketing eggs.⁶

Although these criticisms imply an underlying distrust of at least one basic element of the quotation pricing system, comparatively few critics appear eager to abandon the system as a whole. They recognize that quotation pricing has im-

portant advantages. It probably saves much time and expense in marketing in comparison with such alternative procedures as day-to-day bargaining between widely scattered buyers and sellers. Further, by providing a basing point for determining actual transaction prices, it may have the advantage of reducing the range of price differentials among markets, buyers, and trade channels, and the uncertainties that are an unavoidable part of competitive markets.

Information for this study was obtained principally through interviews with New York egg wholesalers, jobbers, Mercantile Exchange officials, chain store egg buyers, and Federal-State and private market news reporters. Some of the information is from secondary sources.

Theoretical Concepts

In evaluating a price-registering mechanism such as the one for eggs in New York City, a realistic, spatial-temporal model would be useful. Unfortunately, a satisfactory model is not available nor is the basic information necessary for development of one. For the present, therefore, we can only evaluate the mechanism in terms of the highly generalized and less useful principles of accepted pricing theory.

The structure of the central market affects the efficiency of a price registering mechanism and the efficiency of using price quotations. A central, basing-point market should be able to absorb large volumes of different qualities and forms of a commodity and to provide the broad and varied outlets and specialized marketing facilities necessary for their orderly distribution at reasonably stable prices and costs. The market should draw supplies regularly from a large producing area. And it should have a mechanism through which market values at a given level of trading can be registered accurately at regular intervals.

These conditions imply a market structure that facilitates orderly, continuous "clearing of the market,"⁷ price registering and price formation involving a satisfactory degree of "representative

⁴ Although price reports of the Federal-State Market News Service are at times used by traders as market base prices, or quotations, they are not released for this purpose.

⁵ For example, see: PRICE SPREADS ON POULTRY AND EGGS. Hearings before the Committee on Agriculture and Forestry, United States Senate, 83d Congress, 2d Session, December 2 and 3, 1954; and SHEPHERD, G. S. "Changes in Structure," YEARBOOK OF AGRICULTURE. U. S. Dept. of Agri., 1954. The research also covers egg markets in Chicago, Los Angeles, and St. Louis. This AMS study complements research under way at the Illinois, Indiana, Missouri, and Ohio Agricultural Experiment Stations dealing with pricing eggs at country points, and similar work in progress at the Pennsylvania and New Jersey Stations.

⁶ Similar criticisms have been made of central market prices for butter. For example, see March and Herrmann, *op. cit.*

⁷ MANCHESTER, A. C., *op. cit.*, pp. 4-5; SHEPHERD, G. S., *MARKETING FARM PRODUCTS*, 3d ed. Iowa State College Press, Ames, 1955; and three articles in *YEARBOOK OF AGRICULTURE*, 1954, U. S. Dept. of Agri., by DUDDY, E. A., "The Place of Terminal Markets," pp. 37-48; NORTON, L. J., "The Essentials of Good Terminals," pp. 48-52; and SHEPHERD, G. S., "Changes in Structure," pp. 52-59.

trading," flexibility without erratic change, absence of market rigging, and general acceptance of pricing results by the participants.

New York Market Described

To gain perspective, we turn now to a brief description of the organization and trading practices of the New York market for eggs. The market is made up of hundreds of trading firms and several specialized marketing agencies. Some 36 large wholesale-receivers of eggs receive more than 1,000 cases of eggs each, per week, on the average. They received from country shippers, producers and farmers' cooperatives about 5 million cases of eggs in 1954, or about 35-40 percent of estimated shell egg needs of the metropolitan area.

Most of these firms, which do business in a small area on the lower west side of Manhattan, also assemble eggs through collectors at nearby points, or operate nearby and Midwestern country assembly plants. Several firms candle, carton, and distribute eggs, but about 43 percent of the eggs they handle are sold as received to 200 or more jobbers. The jobbers, in turn, perform these functions and serve some of the more than 50,000 retail units and 30,000 eating establishments in the city. Another 40 percent are sold to chain stores, 14 percent to independent retailers, hotels, and institutions, and 4 percent to other wholesalers. About 10 percent are shipped out of the city, primarily to foreign ports.

Five large food-chain organizations in 1954 received an estimated 2 million cases of eggs in 1954, primarily from country assemblers and farmers' cooperatives. Most of these eggs were candled and cartoned in the chains' own warehouses for distribution to their stores. The large chains bought about 15 percent of their needs from city wholesalers.

The remaining needs of the New York metropolitan area were met by eggs that came into the city in several different ways. Most important of these is reported to be direct distribution of eggs to retail stores and to consumers by producers and distributors operating from nearby country points.

Three specialized agencies—the New York Mercantile Exchange, the Urner-Barry Company, and the Federal-State Market News Service—facilitate the marketing and pricing of eggs.

The New York Mercantile Exchange, organized in 1872, provides facilities for public trading in several important agricultural commodities. Membership in the Exchange is open to any person or firm with good business standing. Trading is conducted exclusively by members for their own accounts or as brokers for nonmembers, or both, according to prescribed rules for trading in eggs in several weight and quality classifications. All trading is done by voice before a set of blackboards on which Exchange employees record offers, bids, and sales. All sales are for cash by 2 p. m. of the same day and must bear a certificate of an egg grader of the United States Department of Agriculture as to quality. The Exchange does not quote prices and disclaims any part in setting prices other than providing facilities for public trading.

The Urner-Barry Company, a private firm, collects and analyzes New York wholesale prices of many products, including eggs. This company publishes quotations daily in its "Producers' Price-Current." Urner-Barry price quotations on eggs are based primarily on results of trading on the New York Mercantile Exchange; a quotation represents the best judgment of the firm's egg specialist of the market base prices at the time it is released. These are the quotations to which traders refer when they speak of "today's market." Quotations are distributed by commercial news wire services at about 11 a. m. each trading day, but not by the wire services of the Associated Press, the United Press, or the International News Service.

The Federal-State Market News Service issues daily reports of egg prices and receipts, and related marketing information for eggs and other products, by mimeographed report, private telegraph, a leased wire system, and the national news wire services, AP, UP, and INS. The price reports are based on information gathered in much the same manner and from many of the same sources as the Urner-Barry price quotations. However, the purposes of the two reporters differ in at least one important respect and this difference affects their operating procedures. The aim of the Urner-Barry reporter is to release a quotation for each of several weight and quality classifications of eggs. The Market News reporter attempts to report prices for all wholesale sales he can discover wherein quality and other factors are

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reasonably comparable. As a result, the two price reports are essentially similar, with one expressed as a single price and the other as a range of prices.⁸

In at least one respect, egg handlers of the various types in the city follow similar trading practices in that they all use the quotation pricing system in establishing actual transaction prices. The usual terms of trade established by oral and written agreements⁹ between the larger wholesale-receivers and chain stores on the one hand, and their country suppliers on the other appear to be about as follows:

Sales are made f. o. b. receivers' and chain store warehouses. Eggs may be delivered in either new or good quality used cases which are usually returned to shippers free, or at an agreed price, say 15 or 30 cents per case. Prices are the Urner-Barry quotation for a given grade and size of eggs, day of arrival, plus or minus an agreed-upon differential. Most actual prices paid to shippers appear to be in the range of 1 cent below the quotation to 1½ cents above, depending on quality, services, and other conditions. A cash settlement usually is made on the day of arrival or the day following. The grade of eggs is seldom determined by a third party. Most of the eggs that arrive in New York are not candled for quality by wholesalers except on a sample basis. Disputes between buyers and sellers on quality and other matters are usually handled by informal negotiation.

Agreements between receivers and country shippers generally do not specify the volumes of eggs to be delivered in any given time period. They simply establish the terms of trade for those deliveries which will be made. Sellers are not generally required to deliver their entire volume to a single receiver nor is the receiver required to purchase all of his receipts from a single shipper. But, it is apparently customary for the larger

⁸The Federal-State Market News reporter also learns of occasional changes in the relationship between prices established in street trading and the quotations, and therefore reports information in addition to the range of trading that occurs in the process of registering base prices. Changes in the premium-discount structure frequently precede changes in quotations.

⁹Many of the understandings between city receivers and country shippers are highly informal, and the term "agreements" is not intended to imply arrangements of a formal nature only. Written contracts between receivers and shippers are rare.

wholesale-receivers to accept any volumes of eggs country shippers wish to ship them. The chain stores, on the other hand, appear to have the policy of restricting purchases, even from regular suppliers, to their approximate needs as these are determined by their retail outlets.

Registering and Quoting Base Prices

Now let us see how these organizations and practices fit together in registering base egg prices on a more-or-less typical trading day. In the morning, the egg market reporter of the Urner-Barry Company calls on wholesalers in the Manhattan market. In these personal contacts he picks up little information on prices because nearly all street trading in bulk-packaged, nonstandardized eggs is conducted on the basis of his quotation established the previous day. He does, however, learn how the traders feel about the current market situation and how readily or slowly eggs are moving into distributive channels in relation to actual and anticipated receipts. To this collection of facts, opinions, and observations, he adds his gleanings of the previous afternoon from telephone conversations with egg buyers in the New York City area but outside the Manhattan market. Information is also regularly obtained on conditions prevailing in other markets and supply areas.

Shortly before 10:30 a. m., when the 15-minute spot call for eggs opens daily, the reporter arrives on the trading floor of the New York Mercantile Exchange. There, a number of members of the Exchange already have assembled to await the opening of the spot call, to engage in friendly conversation, or to make a few private sales of eggs. As many as 75 members may be present at the spot call, but usually the number is substantially less. The majority are egg handlers in the Manhattan market. Many attend the daily spot call primarily to observe trading. Several have a definite policy of nonparticipation, and many others usually are not prepared to sell eggs. Typically, only a dozen or so traders are active on any one day, and only a handful participate regularly in trading on the spot call.¹⁰

¹⁰In November 1955, a total of 45 different individuals, of whom 38 are egg wholesalers, traded eggs on the Exchange one or more days each, but only 6 made offers, bids, purchases, or sales on 12 or more of the 20 trading days during the month. Only 7 additional persons were active on 8 to 11 days; 13 were active on 4 to 7 days; and 19 traded on only 1 to 3 days.

The large food chains and meatpacking and dairy companies do not trade openly on the Exchange, but some may trade through brokers. Few, if any, small jobbers take part. Only one producers' association is active more than occasionally on the spot call. In a practical sense therefore, trading in cash eggs on the New York Mercantile Exchange is carried on by a small, informal group of traders, mostly Manhattan wholesale-receivers of eggs, and it acts as a leader in the registering of base prices.

As a rule, transactions on the Exchange involve lots of eggs of the minimum quantities permitted. These are 25 cases of nearby eggs and 50 cases of all other (principally midwestern) eggs. Lots of more than 100 cases are seldom traded, but bids and offers for larger lots are relatively common. The combined effect of the small number of active traders and the general practice of buying and selling essentially token quantities of eggs is to hold total trading volumes to extremely low levels, usually less than 1 percent of receipts in the metropolitan area.¹¹

A few minutes after the close of the daily spot call, the reporter for the Urner-Barry Company announces his egg price quotations, which become the new market base prices until the next day's Exchange trading.¹² Technically, these quotations are only the opinion of an expert market analyst of the market base prices at the moment of their release. As a practical matter, however, they are heavily influenced by results of Exchange trading. Quotations are based on a careful evaluation of spot call activity and information from other sources. The reporter may ignore unfulfilled bids and offers and other information he believes to be irrelevant or misleading, but he rarely can ignore closing prices of an active spot call, because these represent trade action, not opinions.¹³

¹¹ For example in April 1954, 109 transactions were made on the 22 spot calls involving about 9,000 cases of eggs in 13 different quality and size classifications. These sales were about 0.7 percent of estimated April receipts of eggs in the New York metropolitan area. In addition, 448 unfilled offers and bids were recorded on the Exchange egg boards.

¹² Egg price reports of the Federal-State Market News Service in New York are released at noon of each trading day.

¹³ Even unfulfilled bids and offers may not always be ignored if the bid is above the previous day's quotation or the offer is below it. In fact, in the absence of actual trades on the spot call unfulfilled bids and offers may be the only available public expressions of trade sentiment.

Evaluation of Price Registering Mechanism

The evaluation of the price registering mechanism given below is admittedly preliminary and incomplete. It is based largely on consideration of selected aspects of market structure and practice. Six aspects are considered: (1) The nature of firms that actively participate in registering market base prices; (2) the level of trading reflected by activity on the New York Mercantile Exchange spot call; (3) the primary purpose of trading on the Exchange; (4) the tendency toward price instability; (5) small volumes of trading on the Exchange; and (6) the suitability of the quotations for use in pricing eggs at various levels of trading (a) in New York, and (b) in other markets.

Few Trading Firms Participate

The relatively few firms that participate in the registering of egg prices in New York City represent primarily one major segment of the total metropolitan area market. They constitute a link in the traditional and declining marketing channel of farmer-country shipper-city wholesaler-jobber-and-independent retailer. They also supply a small portion of the needs of the chain stores and, at times, act as brokers of shell eggs. About 35 to 40 percent of the eggs received in the metropolitan area pass through their hands.¹⁴ Their receipts are an even much smaller percentage in the larger market in which New York egg quotations are said to have direct effects on cash egg prices to farmers and others. Furthermore, about 90 percent of their sales are made to buyers within the city—another 8 percent go to foreign countries. Most of their receipts originate in five States—New York, New Jersey, Pennsylvania, Iowa, and Minnesota.

Firms that use the more direct marketing channels and handle most of the eggs received in the city do not participate directly in price registering activities. Their influence on market base prices is indirect. It probably is felt through their purchasing and distribution activities, including effects of these on receipts and sales of the firms active in Exchange trading. The large chains may exert some additional indirect influence on market base prices through their in-

¹⁴ The Federal-State Market News reporter in New York has indicated that the proportion of eggs received in the metropolitan area by traders active on the Exchange more than only occasionally may be much less than 35 percent.

fluence on retail prices and sales of eggs. The potency of indirect influences is not known, and the extent of the time lags involved is uncertain.

Thus, the traders who actively participate in price registered are the dominant group in the Manhattan market. They are also alert to the ever-changing competitive forces between them and other important segments of the market for eggs in the city. These forces directly or indirectly affect the volumes handled by the group. In other words, lack of "representativeness" probably is not an inherent defect of the price-registering mechanism itself. The problem may arise from improper use of its results, the quotations, when firms outside the New York metropolitan area use these quotations to determine prices for eggs which do not enter the New York market.

Level of Trading

The New York spot call for eggs often has been viewed as the wholesale level of trading in the city. At one time in the history of the New York egg market, this interpretation may have been essentially correct.¹⁵

But the growth of quotation-pricing arrangements and other trading developments have almost eliminated this type of trading activity on the Exchange. Receivers generally find it less costly, more convenient, and otherwise more efficient to buy under quotation-pricing agreements for most of their needs and to fill additional needs by telephone. Further, when trading on the Exchange,

¹⁵ "In determining the quotations printed in 'The Producers' Price-Current,' it is the sole object of the reporters to represent the full selling value of all qualities commonly obtainable as indicated by wholesale transactions from first hands, in which the price terms are agreed to by barter and without reference to the quotation. There are sometimes certain particular marks of goods that are engaged by regular buyers at a premium over the quotation. But such sales do not really represent the actual value of the goods on the open market, for the premium represents simply the value of regular service with a known quality of goods, and the saving of the buyer's time in shopping the market. The price at which the goods can be bought by a buyer going from store to store to seek them, or the price at which holders can sell on the open market the quantity of goods imperatively offered, are the prices at which the reporter aims to fix his quotations." Urner-Barry Company, *op. cit.*, p. 18. This policy was stated in 1907. However, it appears that the firm now recognizes that in the case of eggs it in effect quotes "base values" rather than actual values.

both buyers and sellers incur costs in addition to regular costs of receiving (buying) and distributing (selling) eggs under standing agreements or by telephone contact. These costs are both direct and indirect. Such costs as brokerage, Exchange, and quality inspection fees are direct and measurable. Indirect and largely nonmeasurable are such costs as time spent in Exchange trading, uncertainties for sellers that available stocks of eggs will meet Exchange specifications, and uncertainties for buyers that the eggs bought on the Exchange will have the quality characteristics of eggs bought through regular channels.

Similar doubts may be expressed concerning the extent to which the trading reflects market values at the city receiver buying levels. At what level is trading on the spot call, and what is its purpose?

Under present marketing practices, it appears that spot call trading does not necessarily register market values for either given recognized level of street trading, wholesale selling, or trucklot receiving. The quotations established on the basis of spot call trading appear to be between actual transaction prices for these trading levels, and the trade regularly uses the quotations as base prices for both buying and selling.¹⁶ As a consequence, base prices need not reflect market values of a particular level of trading in order to provide means of arriving at prices for a particular level. However, it is necessary that both trade understanding of the sense of the quotations and trade practices in using them remain essentially unchanged from day to day. It is desirable that the egg trade have available current information on the structure of premiums and discounts. The Federal-State Market News Service now endeavors to provide such information.

Purpose of Trading

Since prevailing market practice requires quotations for use as market base prices, there is a compelling need for a mechanism, such as trading on the Mercantile Exchange, through which current quotations can be established. In a practical though not technical sense, the primary purpose of Exchange trading in cash eggs is the registering of these market base prices. In daily spot call

¹⁶ The price reports of the Federal-State Market News Service usually include the quotations within reported ranges of wholesale selling prices.

sessions, traders, by offering and bidding for eggs, test the reactions and sentiment of the Manhattan trade as a group to particular market and price situations to see if adjustments may be needed in existing quotations.

These adjustments may consist of changes in the general level of base prices or of changes in relationships among the quotations for the different classifications of eggs. In either case, trading appears to be conducted with a view to arriving at a set of quotations which, when adjusted by the prevailing complex structure of premiums and discounts, will provide the actual transaction prices that at the moment appear most likely to provide a satisfactory movement of eggs through regular outlets without sacrifice of usual trading margins.

Trading may occasionally be influenced by other factors. One is the desire of New York traders to avoid losses or to secure gains on floor stocks. But motives of this sort probably are not usually as strong as the desire to secure regular trading margins on a large volume of eggs.

To conclude from the foregoing that this price-registering mechanism for eggs regularly understates true market values for eggs, as has been charged, is beside the point. The quotations are base prices. They usually are not actual transaction prices. The significance of this may not generally be understood, and if that is true an educational job is needed. But an important question for further research is whether the actual transaction prices established under this quotation pricing system promote efficiency in the pricing and movement of eggs in marketing channels.

Price Instability

One of the major complaints of farmers and others against the pricing system for eggs in New York and other central-market cities is that prices in these markets fluctuate more frequently and widely than is necessary for efficiency in marketing. The absence of satisfactory criteria for evaluating the reasonableness of actual price variations appears to make analysis of daily price data unrewarding. Despite this lack, some valuable insights on this problem may be achieved through study of the structure of the New York market.

Our analysis indicates that certain characteristics of the organization and functioning of the market may, though not necessarily, create price

instability. Price-registering activities, as previously indicated, are conducted largely by traders who represent only one major segment of the market, the larger independent wholesale-receivers. This is the segment of traders who have the least stable operating volumes.

Wholesalers' receipts of eggs from country points vary from day to day and week to week several times as much as do receipts of food chains, and substantially more than estimated total receipts in the city.¹⁷ Many wholesalers claim that by necessity, they constitute the "surplus" segment of the market. As a matter of usual practice they stand ready at all times to receive eggs from any seller or to deliver eggs to any buyer at a stated price. In contrast, many other buyers follow the practice of restricting purchases to estimated immediate needs of regular outlets. As a consequence, wholesale-receivers frequently receive eggs from shippers only when these firms cannot market supplies readily through regular outlets at usual differentials. Conversely, wholesalers are called upon by some chain stores and other buyers only when regular suppliers cannot fill their needs at usual differentials.¹⁸

Furthermore, it is doubtful that this segment of the market can be expected to reduce these variations in operating volumes materially. Hence, some price instability is to be expected. As a

¹⁷ Weekly receipts of eggs in 1954 of the 12 large New York wholesalers interviewed ranged from 50 to 164 percent of average weekly receipts. Weekly purchases of 5 major food chains ranged from 85 to 113 percent of average weekly purchases and for 9 smaller receivers (jobbers) from 90 to 124 percent of their average. The 1954 national disappearance of shell eggs ranged monthly from 89 to 111 percent of average.

¹⁸ In spite of possible adverse effects of these divergent buying practices and concentration of supply variations into one segment of the total market on pricing efficiency, it is not clear that they adversely affect the overall efficiency of the marketing process. The present structure of the market may possibly be, on balance, more efficient because of these conditions. For example, differences in the derived supply and demand curves confronting different types of handlers may justify divergent buying and inventory policies. And firms carrying on candling and cartoning operations probably would experience higher operating costs if they could not restrict variations in purchases to a relatively narrow range. Somewhat similar considerations may also apply to outside handlers who use the New York market only occasionally as a means of bringing purchases and sales into balance when efforts to do this through regular channels fail.

group, New York wholesalers no longer have as broad outlets as they had several decades ago. Most of their sales are made within the metropolitan area and a sizable proportion probably can be considered as committed in advance for more-or-less regular customers.¹⁹ Wholesalers generally appear unwilling or unable to carry inventories large enough to serve as adequate buffer stocks which would tend to dampen fluctuations in prices. The typical firm endeavors to hold inventories at all times to minimum operating levels in order to reduce losses from quality and price declines.

Probably few of these firms have financial reserves in excess of those needed for credit extension to buyers and similar purposes, and are not in a position to finance large inventory accumulations. Also, generally low operating margins of about 2 to 3 percent of gross sales do not encourage acceptance of the heavy risks of owning large inventories.²⁰ Thus, their general policy of seeking the price flexibility necessary to "clear the market" daily is understandable.

Trading Volumes

Trading on the New York Mercantile Exchange usually involves small volumes of eggs. This has raised questions regarding the adequacy of this "sample" of transactions for accurate registering of market base prices. The usual small trading volumes, it is charged, increase the likelihood of extreme fluctuations and manipulation of prices. Despite some logic in these arguments, it does not appear possible either to prove or to disprove them on the basis of existing information.

New York traders generally argue that large volumes are not essential to achieve the primary purpose of trading, which is to discover and register market base prices; and, surpluses and deficits in supplies are usually adjusted by street trading more economically than by Exchange trading. A few lots of 25 cases each are normally adequate to test trade reactions to specific price situations, and to obtain the relatively small adjustments usually needed in current quotations. Therefore, why

¹⁹ A few wholesalers conduct brokerage operations through which they at times are able to divert "receipts" to other markets or into storage.

²⁰ Several wholesalers indicated that hedging operations are not adequate protection against inventory losses.

take the time and incur the extra costs of trading a truckload of eggs?²¹ Furthermore, the complete absence of activity on the spot call on a particular day is not necessarily undesirable; it may simply indicate that the trade generally feels no need for adjustments in prevailing quotations. Under such conditions, the absence of trading may be more meaningful and no less inaccurate in practical effect than sales of hundreds of cases on the spot call.

Granting some logic in the argument that small numbers of traders and small volumes of trading increase probabilities of price manipulation, the probabilities have been exaggerated by critics of the present system of pricing eggs. According to many daily observers of the spot call, a bold and skillful trader may be able to manipulate closing prices on the Exchange for one or two days, but this activity is subject to serious limitations. The Exchange penalizes members found guilty of improper trading. Even greater penalties may be exacted by the community of traders by less formal and more rapid means. A trader who attempts to manipulate prices in his favor, if he misjudges market conditions and trade sentiment, may quickly find himself buying or selling large volumes of eggs at a loss. Reporters also are watchful for attempts at manipulation and can refuse to "quote" a market that, in their opinion, is "rigged." In short, although the incentives for manipulation are frequently present, deterrents are potent. These deterrents probably would be stronger, however, in a broader market.

Use of New York Quotations

Much of this paper has dealt directly or indirectly with considerations pertinent to the question of the suitability of New York egg quotations in pricing eggs at various levels of trading in New York and in other markets. Our analysis has led to several somewhat different, but not contradictory, conclusions, which may be modified as additional information becomes available. In this connection, current studies of pricing practices of country egg assemblers and handlers may prove particularly valuable.

In general, the question of the suitability of New

²¹ Given the usually small volumes of trading any large increase in trading activity may have unsettling effects on the market, particularly if the trading is through brokers.

York egg quotations in pricing eggs under long-term quotation pricing agreements appears to depend largely on the closeness, in the economic sense, of the particular transactions involved to the Manhattan egg market. Within this market itself the quotations and the methods of establishing them appear to be on the whole satisfactory. Traders active in the price registering process handle nearly all of the eggs that pass through the Manhattan market. They are alert to competitive forces, highly sensitive to prices, and generally well informed. Although they trade only token quantities of eggs on the Exchange, they regularly back up these public expressions of market values with street and other trading of relatively large volumes of eggs on the basis of the quotations determined, in the main, by their own trading activities on the Exchange. In short, these firms are the focal points through which Manhattan buying and widely scattered selling interests meet.

As the marketing area under consideration is broadened, however, the suitability of New York egg quotations in fixing actual transaction prices under long-term quotation pricing agreements becomes doubtful. The primary causes of this are to be found in the national production and marketing structure for eggs which has undergone marked changes over the past several decades.

Among these changes are: (1) Relative increases in egg production in areas near major consuming centers; (2) sharp declines in seasonal variations in production nationally; and, (3) substantial decentralization in marketing as the result of development of modern techniques of transportation, communication, and distribution. Therefore, central market egg quotations are not as appropriate as in earlier years for price formation in many consumer markets and producing areas. Egg trading and price formation now involve far wider areas of action than the central markets.

Although the central market quotations undoubtedly will continue to be influential in price formation, their relative influence seems destined to decline still further. An expansion of reporting of egg movements and prices outside the central markets, especially in the major egg-producing areas, might hasten this decline. Many country shippers and egg handlers throughout the United States may still be using New York egg

quotations and price reports in pricing eggs which do not enter that market simply because these quotations and reports are the least unsatisfactory of the relatively small number of available alternative sources of price information. But it is by no means certain that an expansion of market information on eggs would have effects similar to those generally accredited to the decentralization and expansion of market information on such commodities as hogs and commercial broilers.

Possible Future Research

Before research in this area of egg pricing is completed it would be desirable to examine several possible means of improving egg-pricing methods. Some aspects of the problem that merit study are: (1) Means of broadening the base of exchange trading; (2) methods of reducing fluctuations in receipts, and/or channels, of eggs in central market cities; (3) expansion of coverage of market news information; (4) altering the basis of the quotations used in the quotation pricing system; and (5) securing greater comparability among markets in information on prices and market conditions. Study of these and other possible alternatives might reveal them to be impracticable or otherwise unsatisfactory, but they should all be accorded serious consideration.

Increase Exchange trading.—The base of trading in cash eggs on the Exchange might be broadened by expanding the present small volume of trading, and perhaps also the number and types of active traders. For example, active trading by more representatives of country shippers and producers of eggs would broaden the range of trade interests in the price-discovery process.²² Use of modern communication methods, not even excluding a closed television circuit, might permit traders at considerable distances from New York to participate directly in this process. Free inspection service for all traders who give notice of intention to appear on the spot call might induce more active participation in daily Exchange trad-

²² One possible disadvantage of this proposal is that it might cause the quotation to vary considerably from time to time in the level of trading it represents. Another possible disadvantage is that the presence of several large, well financed egg traders might discourage participation by New York wholesalers and even decrease rather than increase the range of trading interests and trading volumes.

ing by eliminating the principal costs of being prepared to sell. Reductions in this and other costs of trading on the Exchange might induce an expansion of trading accompanied by some improvement in the accuracy and stability of prices and quotations.

Reduce variations in volumes of receipts.—Means may be found for reducing the large variations of receipts of eggs by wholesale receivers in the New York market. Country shippers perhaps could make more strenuous efforts to direct the flow of eggs among markets and types of egg receivers so that gluts and shortages would be minimized. These abnormal marketing conditions in New York at times have highly disruptive effects on trade channels, location of stocks, and possibly prices. The practical difficulties involved in such operations probably would be great, and perhaps even insurmountable, but the potential benefits from success seem great enough to warrant their study.

Expand Market News Services.—Expansion of the market coverage of the Federal-State Market News Services and/or other information programs might improve price-making processes. Reports on country point prices and collections of eggs in all major egg producing areas probably would be most beneficial. Several proposals to expand the Federal-State Market News Service coverage of egg prices and marketings are under study, including among others, prices paid by retailers in New York City and other large cities and prices paid farmers in major producing areas. The Marketing Research Division also has initiated a research project which, it is hoped, will result in development of a national weekly report of egg movements from farms to first buyers.

Alter the bases of quotations.—Modification of the quotation pricing system is a subject for further possible research. For example, producers shipping eggs to Los Angeles distributors are paid at a fixed differential under the prices paid by retailers as reported by the Federal-State Market News Service. Research, of course, would be needed to learn whether any such pricing procedure could operate successfully in other cities

where egg-marketing conditions and methods, and size of firms, differ materially from those prevailing in the Los Angeles area. Still other price bases, such as egg futures prices, might be considered.

Increase comparability of market reports.—More uniformity in reporting with respect to grades of eggs and levels of trading would be helpful to all who use the reports. The extent of the confusion and marketing errors resulting from existing variability in reporting practices, although unknown, may be considerable. This, of course, is a difficult problem which the Market News Service cannot solve without assistance from the industry and probably from research and extension workers in egg marketing as well.

Finally, looking into the future, we might consider some powerful forces that have produced and will continue to produce important changes in methods of egg marketing and egg pricing. The traditional system of marketing eggs from farmers through country assemblers, city wholesalers, jobbers, and retailers has been declining in importance for many years as new and more efficient marketing methods have developed and as commercial egg production has increased in importance relative to total production. At the same time that numbers of small retailers, small jobbers and small wholesalers in the city have been reduced, numbers of country assemblers and egg producers have declined. The average size of producing and marketing organizations has greatly increased. Most signs point to continuance of these trends. Direct negotiation of terms of sale of large quantities becomes less costly per unit of product. More such transactions, therefore, may develop. We have already witnessed the start of this trend in pricing ready-to-cook poultry and several other products, and it may develop in eggs, too. This possibility deserves careful watching. It could even "solve" our problems of quotation pricing by the simple device of eliminating this pricing method. Pricing problems would still remain. Whether they would be more or less susceptible to solution than the present ones remains to be seen.