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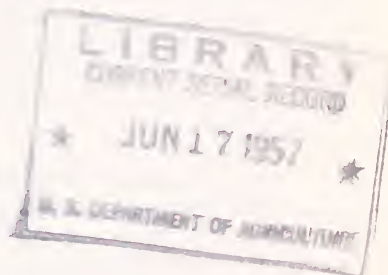
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Pricing Eggs

at Wholesale in Chicago and St. Louis



U. S. DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service
Marketing Research Division
Marketing Research Report No. 173

PREFACE

The effectiveness with which the price-making process operates is of major importance in the marketing of agricultural products. As technological and other developments cause changes in the location of producing areas and consuming markets, numbers and kinds of buyers and sellers, or other attributes of market structure, analyses are needed to learn what effects such changes may have on prices, price-making processes, and marketing margins and costs.

In several commodity markets in recent years, questions have been raised concerning the nature and performance of pricing processes. This report presents the preliminary findings and conclusions of a study undertaken to learn how prices for eggs are established in two important midwestern markets, Chicago, Ill., and St. Louis, Mo. Another report will provide similar information on the egg market in New York, N. Y. A report on the Los Angeles, Calif., egg market has been issued as Marketing Research Report No. 161.

This report describes the Chicago and St. Louis egg markets and the pricing of eggs to country shippers, wholesalers, other handlers, and retail stores. The prices established in these two markets are believed to have considerable influence on, and, in turn, probably are affected by, prices paid to farmers in most of the North Central region. The report presents a preliminary evaluation of the pricing mechanism and indicates possible means of overcoming present shortcomings in the pricing system.

The report is designed to assist farmers, egg handlers, students and teachers of the marketing of farm products, and others to gain a better understanding of the marketing and pricing processes in a major egg market. A later publication is planned, giving more attention to means by which shortcomings in the pricing of eggs may be moderated or overcome.

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SUMMARY

Chicago

The structure of the Chicago egg market is complex and changing. At least two distinctly different systems of assembling, distributing, and pricing eggs are in competition. At one extreme are large corporate food chains with fully integrated egg marketing operations. They buy eggs from farmers on a grade-size basis at their country grading stations, where the eggs are cartoned for sale through their retail stores. Other chains buy cartoned eggs from independent country assemblers. Eggs purchased by the chains handling upwards of 40 percent of total egg receipts in Chicago are received largely from country points in consumer cartons. The chains rarely buy eggs from Chicago wholesalers and do not trade in eggs on the Chicago Mercantile Exchange.

Several independent egg distributors also buy cartoned eggs from country shippers for resale to retail stores. Probably more than half of the estimated 5.4 million cases of eggs received annually in the metropolitan area are received in consumer cartons direct from country points. The proportion of wholesale graded and ungraded eggs in 30-dozen cases has been declining.

The integrated and partly integrated egg marketing firms generally follow an informal, relatively flexible quotation pricing system in determining prices to country shippers. Both New York and Chicago egg quotations are used as base prices. Firms buying from farmers at the firms' own grading stations pay prevailing competitive prices in the vicinity of the stations.

The independent wholesalers who do not carton eggs but resell them in bulk handle probably less than 15 percent of the eggs received in Chicago. They buy eggs on wholesale grades, or ungraded, at or close to the quotations posted daily on the Chicago Mercantile Exchange. Most of their sales are made to jobbers and egg breakers.

The Chicago Mercantile Exchange provides facilities for trading in eggs, for both immediate and future delivery. Most of the traders on the daily spot market for eggs are wholesalers of bulk eggs and egg breakers. Volumes of eggs sold on the spot call, however, usually are small--less than 0.5 percent of estimated annual receipts in the metropolitan area. Individual sales usually involve relatively small lots since, in practice, the principal purpose of trading is to establish base prices for the various grades and sizes of eggs. These prices are used with customary trade differentials to provide a set of prices likely to move current supplies through normal distribution channels. This trading does not actually establish the quotations, but it provides the principal basis used by a private market reporter who quotes the market daily. The quotations are posted on the exchange and given wide public distribution by various news media.

The USDA Market News Service in Chicago reports on street (wholesale) and exchange trading and related information. It reports wholesale selling prices on the small volumes of eggs sold in bulk at wholesale by a few firms, but it does not provide information on prices paid and received for consumer graded and cartoned eggs by the firms handling most of the eggs received and sold in the metropolitan area.

Consideration should be given to replacing present market reports with reports on prices paid by city receivers and retailers for consumer graded, sized, and cartoned eggs delivered to stores and to wholesale distributors' houses. In addition, there is a need for more information on market conditions and prices at country points in the Midwest.

Consideration might also be given to elimination of spot call trading on the exchange. The decline of the traditional marketing system in which spot call trading was an integral part, and its continuing replacement by more direct, integrated methods, already have eliminated most of the basis for such trading.

St. Louis

St. Louis is a large local market for eggs in the Nation's foremost surplus egg producing region. It provides outlets for large volumes of eggs for farmers in Missouri, Illinois, and Iowa. As in Chicago and many other markets, the trend toward more direct marketing methods is plainly visible in St. Louis. Fully or partly integrated egg marketing firms now handle most of the eggs received in the metropolitan area. Most of the larger (and some of the small) egg dealers in St. Louis assemble, candle, carton, and deliver eggs to retail outlets. They collect eggs from farms with large flocks and from buying stations.

Egg purchases by these dealers generally are on the basis of the yields of U. S. consumer grades and sizes of eggs from individual lots, as determined in buyers' plants, and producers are paid prices f.o.b. St. Louis, cases returned. Formal agreements between producers and St. Louis dealers are rare. Fully three-fourths of the sales by these dealers are made to retail stores and institutional buyers. Most of the rest of the sales are to egg breakers in the city.

Wholesale receivers of eggs in St. Louis generally purchase ungraded eggs from producers, country stores, and hucksters, and resell them without grading or packing. Purchases, which vary greatly in volume seasonally, are made by these firms in accordance with trade practices of long standing at prevailing prices as reported by the market reporting agencies in the city. Most of the eggs bought by these wholesalers are sold as received to egg breakers at margins up to 1 cent per dozen over paying prices.

Most of the chain food stores in St. Louis buy eggs through the independent distributors of cartoned eggs. Only one chain operates a grading and cartoning plant in the city, buying its supplies from country shippers in essentially the same manner as the distributors. Another chain owns and operates country buying and grading stations near St. Louis, paying producers competitive prices in the supply area.

Egg-breaking companies are an important segment of the market for shell eggs in St. Louis, especially during the spring when supplies of eggs are greatest. Breakers buy both directly from farmers and through wholesalers of bulk eggs, providing a needed outlet for surplus eggs and undergrades.

St. Louis egg prices and related market information are collected and reported by the St. Louis office of the USDA Market News Service and also by a private market reporting company. Quotation pricing methods do not appear to be used by receivers in the market, with the possible exception of some small firms. A formal mechanism for establishing egg quotations does not exist.

A few firms, primarily the larger distributors, may be the dominant forces in pricing eggs in St. Louis, but this is not certain. Some of the egg dealers and others in the market who were interviewed in 1955 referred to a few large distributors and egg breakers as price leaders. One firm was mentioned by almost everyone interviewed as a price leader. The breakers apparently exert considerable influence on prices at times. Many smaller dealers follow the reported prices printed in the daily market reports, but at times they have led the market up or down.

Present methods of pricing and reporting prices of eggs in St. Louis appear to be generally satisfactory. Participation in the pricing process apparently is broader than the small group of firms generally considered as leaders. This may be the result of the absence of "giants" in the market. For such major problems as excessive price variability, the appropriate solution for St. Louis probably lies largely outside the market.

PRICING EGGS AT WHOLESALE IN CHICAGO AND ST. LOUIS

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THE PROBLEM

The study on which this report is based is concerned with the organization of the Chicago, St. Louis, New York, and Los Angeles markets for eggs, the principal egg marketing institutions, the price registering mechanism, the trade practices, the methods of price reporting, and some of the pricing results. Of particular interest is the role of the price registering mechanism in Chicago in what is usually called the quotation pricing system. Under this system, transaction prices throughout a marketing area and at one or more levels of trading are established on the basis of a central market price quotation, in accordance with terms of long standing agreements or accepted trade practices.

Egg prices affect the incomes and production decisions of hundreds of thousands of farmers, the incomes and operations of thousands of egg handlers, and the living costs and food purchases of millions of consumers.¹ For these reasons, it is important that pricing systems register prices which accurately reflect market values and which facilitate efficient marketing of eggs.

Egg prices are established in many ways and in many markets. Among the markets, a few large cities, often designated as central markets, have been most important. Although the influence of these central markets on egg prices in the United States at various levels of trading has been declining, central market egg quotations are still used extensively in the determination of prices of eggs to farmers and others under quotation pricing systems.²

Pricing on the basis of central market quotations has been used to a greater or less extent ever since such markets came into being.³ The continuous nature of the production and marketing processes for eggs (also for several other farm products such as butter and cheese) and the frequency of transactions may be major reasons for the development of this system of pricing. The principal advantage of the system is the marked reduction in time and effort it effects in marketing, compared with the alternative of bargaining between buyer and seller for each sale.⁴

¹ United States farmers received approximately \$1,746 million from the sale of about 54 billion eggs in 1955, and consumed in farm households about 5.5 billion eggs valued at \$176 million. Consumer expenditures for eggs probably were near \$2,700 million.

² Manchester, A. C., Price-Making and Price-Reporting in the Boston Egg Market, Harvard Studies in Marketing Farm Products, No. 7-H, Harvard University, Cambridge, Mass., June 1954; Brown, A. A., Egg Pricing on the Boston Market, University of Massachusetts Agr. Exp. Sta., Bul. 476, March, 1954, Amherst, Mass.; 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. Agr., Washington, D. C., 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.

³ The Producers' Price-Current. The Urner-Barry Co., Inc., New York, N. Y., 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."

⁴ Manchester, A. C., *op. cit.*; and March, R. W., and Herrmann, L. F., The Establishment of Central Market Butter Prices in Chicago and New York, Mktg. Res. Rept. No. 53, Prod. and Mktg. Adm., U. S. Dept. Agr., Washington, D. C., June 1953.

Other reasons for the influence of the central markets on egg prices include: (1) They are in large consuming centers which must draw eggs from large producing areas; (2) they are located on, or at the hub of, economical transportation and communication systems; (3) they have specialized facilities for handling, trading, and pricing eggs; and (4) trading and prices registered in these markets are widely reported by both public and private market reporting services.

Under these conditions, the strong interest of farmers, country assemblers of eggs, and others in central market prices and pricing methods is understandable. At the same time, and in spite of this interest, there appears to be a surprising degree of misunderstanding and confusion, both among farmers and within the egg trade, with respect to these pricing processes.⁵ More important, dissatisfaction is widespread. With the development and growth of more direct marketing channels, criticism of central market prices has grown. The principal complaints and allegations against central market price determining processes are: (1) Central market quotations regularly underquote true market values for eggs, and (2) central market quotations fluctuate more than is economically justifiable or desirable in facilitating the marketing of eggs. In addition, critics of the central markets question that the trading interests involved in central market pricing and the small volumes of trading on which quotations are based provide quotations sufficiently reflective of egg supply and demand conditions in the markets.⁶

Means of improving the efficiency of price-making processes in four central markets and increasing public understanding of their structure and operation were sought in this study. The Chicago market was included because it is the second largest central market for eggs in the United States and because of its importance to egg prices to producers and consumers in large sections of the country. St. Louis was included because it is an important market for eggs produced in parts of Missouri, Illinois, and Iowa. This study complements research being done by the North Central Regional Technical Committee on Poultry Marketing Research on practices followed in establishing paying prices to producers at country points in the region.

The principal sources of information for Part I of this report, dealing with the Chicago egg market, were the wholesalers and other major handlers of eggs in the city. Representatives of 37 wholesalers, chainstores, egg brokers, egg breakers, and other handlers were interviewed in the spring and summer of 1955. In addition, officials of the Chicago Mercantile Exchange, USDA Market News Service reporters, and officials of poultry trade organizations were contacted for information. Some data were secured also from secondary sources.

In St. Louis, personal interviews were held in the spring of 1955 with representatives of 18 egg receivers, chainstore companies, and national meat packers. Information was obtained also in St. Louis from the market reporters for the USDA and the private market reporting company operating there.

PART I--CHICAGO

MARKET ORGANIZATION, CHANNELS, AND TRADE PRACTICES

The wholesale market for shell eggs in Chicago involves probably more than 200 receiver-distributors, brokers, chain food store systems, meat packers, dairy companies, general food distributors, and cooperative grocery groups. This number does not include the large, but unknown, number of hucksters and distributors generally believed to be receiving and handling, as a group, large volumes of eggs principally in the suburbs of Chicago. The Chicago Mercantile Exchange and the U. S. Dairy and Poultry Market News Office in Chicago provide special facilities and services to the trade. These

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.

⁶ Shepherd, G. S., "Changes in Structure," op. cit. Similar criticisms have been made of central market prices for butter. For example, see March, R. W., and Herrmann, L. F., op. cit.

firms and institutions and their operating practices are the basic elements of a complex marketing structure which involves not one but several egg receiving-distributing systems.

Corporate Chain Food Stores

The 19 corporate food chains which operate approximately 1,000 retail outlets in Chicago are the largest distributors of eggs and other foods in the city. They are credited with handling about half of all food sales in Chicago.⁷ Statistics indicate that they retailed from 35 to 40 percent of estimated 1955 egg requirements of 5.4 million cases in the metropolitan area.

The 4 largest of the 19 chains retailed about 25,000 cases of eggs a week. All eggs received by these large chains were in consumer cartons ready for immediate distribution to retail outlets. That is, the eggs had been consumer graded, sized, and cartoned at country shipping points.

About 60 percent of the receipts of the large chains were purchased from cooperative and private country shippers. The remainder were purchased directly from farmers at chain-owned country buying stations. From these stations, the graded and cartoned eggs were hauled in chain-owned trucks to city warehouses. A fifth, and much smaller, chain organization, whose egg handling practices are believed to be fairly typical of the smaller organizations, purchased all the eggs it handled from a midwestern country shipper. The eggs were candled and cartoned at the shipper's plant and were delivered directly to the chain's retail outlets.

Purchases of eggs by the large chains from city egg wholesalers were made only rarely and totaled less than 1 percent of their receipts from all sources in 1955. These purchases were made primarily to cover unexpected short-run deficits in particular grades or sizes of eggs. None of the chains contacted used the facilities of the Chicago Mercantile Exchange to sell surplus stocks of eggs, buy needed supplies, hedge inventories, or influence prices.

The large chains--and probably the smaller ones, too--which buy eggs from country shippers order eggs on the basis of estimated short-period needs, usually 3 days to a week. Inventories average about 2 days' sales, excluding inventories in retail outlets. In winter, when the possibility of snow-blocked highways makes delivery dates less predictable, larger inventories sometimes are maintained.

Shippers generally are paid for eggs at a fixed premium over a designated quotation or reported price on the day of arrival in Chicago. Prices usually are f. o. b. city warehouses or stores. These arrangements are not formal, either as written or oral agreements, and they cover no specific time periods nor quantities of eggs. Daily or weekly orders are frequently made by telephone on the basis of trade terms understood by both sellers and buyers and conforming in most particulars to long standing trade practices. There is, however, a marked tendency to continue buying from the same shipper as long as the quality of eggs and the services supplied remain satisfactory.

The most common premium paid by the chains in 1955 for candled and cartoned eggs delivered in Chicago was 8 cents per dozen over a designated quotation for eggs at wholesale in 30-dozen cases. Only 1 of the 4 large chains based its paying prices to country shippers solely on the prices posted daily on the Chicago Mercantile Exchange. A second firm used the New York quotations for midwestern eggs as its base prices. The third chain buying from country shippers used both Chicago and New York quotations, depending apparently on the shippers' preferences. These, in turn, may have been influenced considerably by practices common in the respective local areas. The small chain system

⁷ In 1954 the 5 largest corporate chains in Chicago operated about 900 of the 13,000 retail food stores in the city and sold about 45 percent of total consumer purchases of food. Pierre Martineau, "Growing Power of Chain Labels Exerts Stern Pressure on National Brands," Food Business, October, 1954, page 8.

visited in the 1955 survey was paying 8 cents over the bottom of the range of prices for midwestern eggs, as reported by the U. S. Department of Agriculture in New York on Mondays, for all eggs delivered during that week. In most other respects, this small chain followed closely the buying practices of its large competitors.

The chain organizations buying eggs directly from farmers through their own country buying stations reported that of necessity they keep their paying prices competitive with prices paid by other buyers near their stations. They purchase on a grade-size basis, and their paying prices are not established at a fixed differential from a regularly published central market quotation. However, the buyers for these companies appear to keep themselves well informed of current changes in egg production, marketings, and prices in a number of major markets and producing areas.

Dairies, Meat Packers, and Food Distributors

A second important group of distributors of eggs in Chicago includes the large dairy companies, general food distributors, and meat packers. Six of the leading companies in this group, visited in 1955, together handled about 14,500 cases of eggs in an average week. This volume does not include direct shipments of eggs to chain stores and other outlets from country plants owned by several of these firms.⁸

Slightly more than one-third of the eggs received in the city by these 6 firms were in consumer cartons ready for immediate distribution to retail outlets without further candling or packing. About 61 percent of the firms' receipts in 1955 came directly from country shippers and 38 percent were received from farmers through buying stations owned by three companies. Only 1 percent of the eggs received were purchased from other dealers in Chicago. These purchases were not made on a regular basis and were primarily of a "fill-in" nature.

Sales by the 6 firms, excluding sales made by country plants, in 1955 were distributed about as follows: (1) Retail stores, mostly independents, 60 percent; (2) dealers outside Chicago, 25 percent; (3) other Chicago distributors, 10 percent; and (4) institutional users, 5 percent. Only 1 company made sales on a regular basis to dealers outside Chicago. Sales on the Chicago Mercantile Exchange averaged less than 0.2 percent of total sales of the group in 1955 and were made by only 1 of the 6 companies.

Prices posted daily on the Chicago Mercantile Exchange the day of arrival of eggs in Chicago are the most commonly used bases for determining transaction prices with country shippers for eggs coming into Chicago. Most purchases are made at or near the quotations. Premiums and discounts from the quotations are not fixed.⁹ They vary from time to time, depending on market conditions and such factors as differences in egg quality and services performed. The major firms in this group attempt to buy eggs from country shippers at prices which will assure them of average gross margins of 1/2 cent to 1 cent per dozen on loose eggs and 8 to 10 cents per dozen on eggs purchased in 30-dozen cases and candled, cartoned, and delivered to stores.

The companies buying through their own stations directly from farmers generally pay the competitive prices in the vicinity of these stations. How closely these prices approximate central market quotations was not determined.

Independent Receiver-Distributors

The third important group of receivers of eggs in Chicago includes the independent receiver-distributors, frequently referred to as the wholesalers. They buy and sell eggs mostly in bulk, in 30-dozen cases. Most are located in or near the Fulton Street Market.

⁸ Inclusion of these volumes probably would constitute at least partial duplication of receipts data secured from Chicago receivers of eggs.

⁹ There are exceptions to this general situation. One firm, for example, regularly pays 5 to 5-1/2 cents per dozen for candled and cartoned eggs delivered in the city over the top of the range of wholesale selling prices for 60-69 percent A quality eggs as reported by the New York office of the Dairy and Poultry Market News Service.

Wholesale trading has declined materially in importance in the marketing of eggs in Chicago as newer, more direct marketing channels have developed.

Nine of the leading firms in this group visited in 1955 handled about 9,700 cases of eggs in an average week.¹⁰ Three of the 9 firms handled about 7,500 cases of eggs a week.

Candled and cartoned eggs were only 6 percent of the total receipts of these 9 distributors in 1955. By source, the group's receipts were: (1) Country shippers, 84 percent; (2) company-owned country buying stations (from farmers), 13 percent; and (3) other Chicago dealers, 3 percent. Purchases on the Chicago Mercantile Exchange averaged less than 1 percent of total receipts for the group.

Sales of the 9 firms in 1955 were distributed by outlets about as follows: (1) Jobbers, 56 percent; (2) other Chicago distributors, 19 percent; (3) retail stores, mostly independents, 10 percent; (4) dealers outside Chicago, 8 percent; and (5) institutional buyers, 7 percent. Sales on the Chicago Mercantile Exchange accounted for less than 0.3 percent of the group's total sales. A large part of the reported sales to other Chicago distributors actually went to egg breakers in the city. In general, the receiver-distributors of eggs located in the Fulton and South Water wholesale produce markets do not service jobbers and other outlets in the suburbs of Chicago.

Sales of uncandled and uncartoned eggs to jobbers in the city generally are made at the prices established and posted daily on the Chicago Mercantile Exchange or at slight differentials above these prices. Dealers attempt to secure gross margins of 1/2 cent to 1 cent per dozen on these sales. This means that purchase prices generally must be in the range of 1 cent below to 1/2 cent above exchange prices. One of the leading firms in the group handles eggs for country shippers on a commission basis of, when possible, 1 cent per dozen, with most sales at or slightly over exchange prices.

One of the important characteristics of several of these firms is that the handling of shell eggs is only a minor part of their total businesses. Their principal operation is brokerage of futures contracts on the Chicago Mercantile Exchange. Most of the firms have been members of the exchange for many years. Several also are brokers of shell eggs. They arrange for shipments of eggs from country shippers in the Midwest to chain-stores and distributors in many parts of the United States. Prices on these transactions may be based on New York or Chicago quotations. The brokerage commission usually is 1/2 cent per dozen or about \$75 on a large truckload. No attempt was made to determine the volume of these transactions, which vary considerably as egg supply and market conditions vary from time to time. Also, eggs handled by the firms on a brokerage basis rarely pass through Chicago, since it is generally less expensive to arrange for direct truck shipments from country plants to receiving points.

Egg Breakers

Seven egg-breaking firms were operating in Chicago in 1955, of which 4 were visited. These companies provide a market for eggs of breaking qualities and for surpluses of eggs, not only for country shippers but also for dealers in the city. Three firms reported volumes totaling about 350,000 cases in 1955. The breakers tend to buy much more heavily in the spring--April, May, and June--than in other seasons, and they convert shell eggs into frozen and dried egg solids. Although most of their supplies are received directly from country shippers, they buy considerable volumes from shell egg distributors in Chicago. At least one breaker obtains nearly all his breaking stock from Chicago shell egg receivers.

¹⁰The exact number of egg wholesalers could not be determined because so few firms restrict their operations to egg wholesaling. Many not only handle butter, poultry, and other produce, but also conduct both cash and futures brokerage operations and act as distributors or jobbers of candled and cartoned eggs to stores and other outlets.

Chicago Mercantile Exchange prices for current receipts and other breaking qualities are the basis of paying prices to country shippers, but purchases from shell egg receivers frequently are at discounts from exchange prices. The breakers appear to be willing always to accept surplus stocks of city distributors at negotiated prices, generally somewhat below the market quotation.

Cooperative and Voluntary Grocery Groups

The 24 cooperative and voluntary-chain grocery purchasing groups generally do not handle shell eggs for their member stores. At least one, however, has an oral agreement with a large distributor providing for delivery of eggs, cartoned under the group's label, to member stores at prices established by the distributor on the basis of Chicago Mercantile Exchange prices for comparable grades and sizes of eggs. This distributor reported that prices to independent retailers for cartoned eggs ranged from 8 cents to 10 cents per dozen over his paying prices for loose eggs received from country shippers. Under this arrangement, the member stores order eggs directly from the distributor. The agreement can be cancelled at any time on short notice. The cooperative organization in this case acts as a central billing and paying agent.

Shell Egg Brokers

The principal function of a broker is to arrange for transactions between buyers and sellers. His principal asset, therefore, is his personal knowledge of the egg trade and of buyers' and sellers' needs and operating practices. For his efforts, the broker usually receives a commission of 1/2 cent per dozen. Most of his transactions are made by telephone.

In this study, it was possible to identify 41 egg brokers in Chicago. This number, however, is of doubtful meaning, for at least two reasons. First, brokerage of shell eggs is only a small fraction of the total business of many of these brokers. Their principal operation is the handling of transactions for customers trading in egg futures contracts. And second, some firms whose primary business is the receiving and distributing of shell eggs occasionally act as brokers on particular transactions. In fact, on some transactions it may be difficult to determine whether a firm is involved as a broker or as a wholesaler.

The brokers interviewed indicated that the egg sales they arranged rarely involved shipment of eggs into the city. The eggs usually moved directly from a country shipper's plant by truck to the buyer, frequently a chainstore or wholesaler in the East or South. In general, the brokers indicated that the business of shell egg brokerage has been declining, as more rapid means of communication between buyers and sellers makes direct selling more feasible and the specialized services of a broker less essential.

The Chicago Mercantile Exchange

The Chicago Mercantile Exchange was organized in 1919 as a nonprofit organization to provide a national market place for trading in cash and futures contracts for selected commodities. It is one of the largest commodity exchanges in the world, trading in eggs, butter, poultry, onions, and potatoes. Trading is chiefly in contracts for future delivery, or "futures." In fact, the Chicago Mercantile Exchange today provides the only active futures market for eggs in the United States.¹¹ Trading in cash commodities for immediate, rather than future, delivery is done on the exchange's "spot call" boards, but this trading is only a minute part of the total trading activity on the exchange.

Membership is limited to 500. Members must meet the financial, moral, and commercial standards established by the exchange's elected 12-man board of governors. This board also establishes the policies and rules and regulations governing all operations. Execution of the board's policies is the responsibility of the president and his staff. Costs

¹¹ No trading in egg futures has taken place on the New York Mercantile Exchange for several years.

of operation of the exchange are paid from income derived from the fees that members must pay on each transaction.

Trading in "spot" eggs is conducted on the exchange daily in several specific grades and sizes of eggs. Trading begins at 9:30 a.m. and continues for 30 minutes. Bids, offers, and acceptances are recorded on a blackboard at one end of the trading floor by an employee of the exchange. Trading may be conducted in lots of 50 cases or more. Sellers must submit to the buyer, on delivery of eggs, a certificate issued by the exchange, based on an inspection certificate issued by a U. S. Department of Agriculture egg grader, certifying that the eggs meet the minimum requirements of the exchange for eggs of a certain classification (grade and size). The minimum price variation permitted in spot trading is 1/4 cent per dozen. There is no limit on the maximum fluctuation.

The exchange does not officially establish prices on any transaction. This is done by its members, who trade either for their own accounts or as brokers for nonmembers. The exchange provides the facilities by which its members can conduct trading in cash eggs and futures contracts. However, the quotations of a private reporter, based largely on this trading, are posted on the exchange and are regularly made available to the public through various news media.

Chicago Egg Quotations

The Chicago egg quotations, accepted and used by many egg handlers in Chicago and elsewhere as the Chicago market base prices, are established about as follows: At the close of the daily spot call, a private market reporter who is not an exchange employee or member calls an employee of the exchange to secure a verbal account of the trading activity as recorded on the spot call board. The reporter usually decides at once what the new quotations will be, and these figures are recorded on a blackboard high on the wall above the trading floor and readily visible to all traders on the floor. The reporter, in an interview in 1955, indicated that his decisions generally are based on results of trading on the daily spot call. However, he does consider reports on trading in eggs on the New York Mercantile Exchange, trading in futures in Chicago, and information on street trading among a small number of Chicago receivers with whom he talks regularly.

The reporter apparently can and does exercise his independent judgment in making his price quotations. These may be changed from the previous day's quotations not only on the basis of sales on the spot call but also on offers at prices below previous quotations or on bids at prices above earlier quotations. Although a particular quotation may be altered when there has been no trading on the spot call board, the trade generally frowns on this practice. The reporter also usually cannot ignore closing prices of the spot call.

The private market reporter in Chicago in 1955 spent only a small part of his time, in reporting the egg market. His principal occupation then was in poultry processing and distribution in the city. The exchange obtains his reporting services on a subscription basis. The quotations are formulated by the reporter, not the exchange, for the benefit of exchange members, and are circulated in a mimeographed report and are posted on the exchange. They are, however, made available to the public by the exchange through various information media.

Federal Market News Service

The Dairy and Poultry Market News Branch of the Agricultural Marketing Service maintains reporters in Chicago to cover the dairy, poultry, and egg markets. The reporters regularly contact the principal receivers of eggs in the city, both in person and by telephone. One of the reporters usually is present on the exchange trading floor during the daily spot calls to observe trading in both cash and futures contracts. They secure information on prices, quantities received and moved through distribution channels, available supplies, the general tone of the market, and related facts and opinions. The price information is for street trading of eggs in wholesale quantities. Part of the price

information is received in the form of differentials from the quotations posted daily on the exchange. A daily market report is issued at noon of each business day, but the reporters continue to secure and verify information previously received, well into the afternoon. The daily report covers the range of egg prices in wholesale trading in the city, a description of the tone of the egg market as seen by the reporter, prices of any sales of eggs to the Quartermaster Corps, a full record of spot trading and a summary of egg futures trading on the exchange, and summaries of reports received by leased wire from other important egg and poultry markets.

PRICE STRUCTURE AND RESULTS

At least two markedly different systems of assembling, marketing, and pricing eggs are in operation in Chicago. Within each of the groups of firms following broadly similar methods, individual firms employ numerous variations in marketing and pricing practices. This diversity obviously precludes a simple or relatively uniform structure of pricing practices. The pricing of eggs is much more complex and diverse in Chicago than in either New York or Los Angeles.

The Integrated Firms

At one extreme are 2 large corporate food chains with fully integrated egg assembly and distribution systems.¹² They buy eggs directly from farmers on grade at their country assembling and grading stations, where the eggs are candled and cartoned under their private labels for distribution through their retail outlets. They rarely purchase eggs from a Chicago distributor. Such purchases, when made, are likely to be only a few cases of eggs of a specific consumer grade and size, packed in consumer cartons. Purchases of loose eggs of the wholesale grades traded on the exchange and in the Chicago wholesale egg market are not made by these chains in Chicago.¹³

For these reasons, the companies need not, and do not, regularly buy or sell eggs on the basis of reported Chicago wholesale egg prices under quotation pricing agreements, nor do the companies buy or sell eggs on the exchange. This does not mean that the firms can ignore Chicago wholesale egg prices. But competition does not require use of these prices as market base prices or the use of quotation pricing agreements. The firms appear to watch the prices reported in several markets as indicators of market values, both at retail and at the country buying level.

Other corporate food chains and some of the general food distributors buy candled and cartoned eggs from country shippers under varying arrangements, on the basis of consumer grades packed under the chains' private labels. Informal quotation pricing agreements provide for determination of transaction prices on the basis of either New York or Chicago wholesale market quotations. The choice of the quotation and other terms of trade seem to be influenced heavily by competitive conditions in the country buying areas. These chains, however, are otherwise not closely related to the Chicago wholesale egg market. They rarely buy eggs from other Chicago dealers and do not buy uncartoned eggs. They probably never have eggs to sell except through their own retail stores. They are not in direct competition with Chicago wholesalers, are not a part of the wholesale market, do not trade on the exchange, and influence, and are influenced by, this market only indirectly at the retail and country buying levels of trading.

Another firm, not a food chain, with only partially integrated operations, appears to exercise a considerable measure of independence from the Chicago wholesale market. It buys candled and cartoned eggs at country points on the basis of an understanding, using New York egg quotations as price bases and differentials which are not completely inflexible. It follows a policy of limited independence in setting prices to retailers and

¹² It is possible that a number of small distributors of eggs on the outskirts of the Chicago area may have integrated operations and little or no direct contact with the Chicago wholesale market.

¹³ Sales of undergrade eggs and of occasional surpluses are made to egg breakers at competitive market prices which may be heavily influenced by the wholesale price of current receipt eggs in Chicago. Occasional purchases of both loose and cartoned eggs are made from other country assemblers at prices which may be based on reported New York or Chicago wholesale prices.

institutions. While competition forces this relatively large distributor to keep its prices in line with those prevailing in the city, it is not under compulsion to maintain fixed price differentials from prevailing market prices.

Independent Receiver-Distributors

Independent receiver-distributors generally buy and sell eggs under quotation pricing arrangements using Chicago Mercantile Exchange posted prices as market base prices. These arrangements have developed from trading practices of long standing and seldom are formalized as oral or written agreements. Differentials from the quotations, although not widely variable either among firms or from one time to another, do not seem to have the rigidity common in New York or Los Angeles. In addition, some receivers appear willing to use Urner-Barry quotations instead of Chicago prices if sellers insist; at least one receiver obtains eggs on a consignment basis, and some purchases of cartoned eggs are being made under varying quotation pricing arrangements. Interviews with these distributors also revealed that several which had not yet begun to purchase candled and cartoned eggs at country points were giving serious consideration to making this change from former buying methods. On the selling side, it appears that quotation pricing arrangements are even more variable.

Exchange Trading

Although the newer and more direct marketing methods have supplanted old ways and traditional channels to a large extent, the egg quotations posted daily on the Chicago Mercantile Exchange remain important in the pricing of eggs in the city and at many country points.

Most of the larger independent receiver-distributors and egg breaking companies contacted in 1955 are members of the Chicago Mercantile Exchange. Many are also brokers of shell eggs and of futures contracts. These firms are the principal known participants in the daily spot call. Because of the common practice of trading through brokers, the total number of participants is not known. However, it could hardly be large, because the total volume of shell eggs sold on the spot call is extremely small. Furthermore, nearly all the firms interviewed in 1955, except the independent receiver-distributors and the egg breakers, stated that they did not engage in exchange trading either as members or through brokers.

In January, April, July, and October 1954, only 6,088 cases of shell eggs of all grades were sold on the exchange. This is an average of only slightly more than 0.3 percent of the estimated shell egg requirements for the metropolitan area. The requirements were estimated on the basis of metropolitan area population data and national per capita consumption rates. As table 1 indicates, sales on the spot call varied from as little as 770 cases in January to 1,962 cases in April.

In these 4 months, the quotation on Extras, Large White, was changed 42 times, or on about half of the trading days. Of these 42 changes in this quotation, 15 appear to have been based on sales on the spot call. The remaining 27 changes were made on days when no sales were made, but when only bids or offers were recorded on the exchange. Of the total of 21 changes in the quotations on Extras, Medium, in these 4 months, only 3 were made on days when sales of eggs in this classification were made on the spot call. Bids or offers were recorded on the other 18 days. None of the 10 changes in quotations on Standards and only 6 of the 23 changes in quotations on Current Receipts could have been based on the results of sales of eggs in these classifications on the spot call. This is a total of 33 changes in the 4 quotations, out of a total of 142 during these 4 months, which could have been based on sales on the exchange spot call. The 33 sales averaged substantially less than 200 cases per trade.

Further analysis of changes in Chicago quotations for Extras, Large White, revealed a total of 229 changes in 505 trading days in 1953 and 1954. Of these changes, about 90 percent were 2 cents or less. The largest change in the quotation from the previous day

Table 1.--Shell Eggs: Volume of eggs traded on the Chicago Mercantile Exchange, by grade, size, and color, for selected months, 1954

Month	Total volume	Extras (min. 60% A quality)				Current receipts
		White		Mixed colors		
		Large	Medium	Large	Medium	
	<i>Cases</i>	<i>Cases</i>	<i>Cases</i>	<i>Cases</i>	<i>Cases</i>	<i>Cases</i>
January.....	770	350	--	320	--	100
April.....	1,962	512	--	--	50	1,400
July.....	1,850	800	300	400	--	350
October.....	1,506	600	456	250	--	200

Source: Daily Market Report, Dairy and Poultry Market News Service, AMS, Chicago.

was 4.5 cents per dozen in 1953 and 6 cents in 1954. There was no apparent tendency for prices to change more often on a given day of the week than on another. Nor was there a pronounced tendency during this 2-year period for a particular direction or magnitude of change in the quotation to be associated with a given day of the week.

The frequency and magnitude of price changes in Chicago and other central markets often have been the object of criticism. This analysis indicates that the most important Chicago egg quotation fluctuates about as much and as frequently as comparable New York quotations. This does not appear to be the result of one market consistently being the leader in advances or declines. The two markets appear to alternate in this role. On the other hand, both Chicago and New York quotations fluctuated in 1953 and 1954 about five times as frequently as Los Angeles market base prices. An independent analysis of Chicago prices of butter, wheat, cotton, and eggs has shown that daily egg prices were more variable than butter and wheat prices in 1947, and more variable than butter, wheat, and cotton prices in 1950.¹⁴

Daily wholesale prices of eggs reported by the U. S. Market News Service and the egg quotations posted on the Chicago Mercantile Exchange usually are close together. Usually, too, they move in the same direction at the same time by approximately equal amounts. This is to be expected, since the private and public reporters are contacting, for the most part, members of the same group of trading firms. The Market News Report provides a broader coverage of transactions, provides more market information, and is a report of prices paid and not a quotation. In 1953 and 1954, the usual relationship of wholesale prices reported by the Market News Service to the quotations was: (1) The bottom of the range of prices reported by the Service was a half-cent below or equal to the quotation, and (2) the top of the range generally was about 1 cent to 1-1/2 cents above the quotation. In 1954, both the Market News prices and the quotations changed on the same day 120 times. Changes in the Market News price preceded changes in the quotation by one or more days 35 times during the year. The quotation and the Market News price moved in opposite directions only 17 times, including 4 times when 1 changed but the other did not. In other words, the two prices are generally close together but neither can regularly be used as an accurate indicator of the other. Market News reports provide much market information in addition to reported prices.

Reported receipts of eggs in Chicago are highly variable, both on a daily and on a weekly basis. The magnitude of these variations is indicated in figure 1. Day-to-day fluctuations in volumes of eggs received in the city probably are influenced greatly by long standing trade practices, including established patterns of country assembly and handling

¹⁴March, R. W., and Herrmann, L. F.: op. cit.

SEASONAL TREND IN RECEIPTS OF EGGS IN CHICAGO

By Months, 1935-39 Averages, and 1954

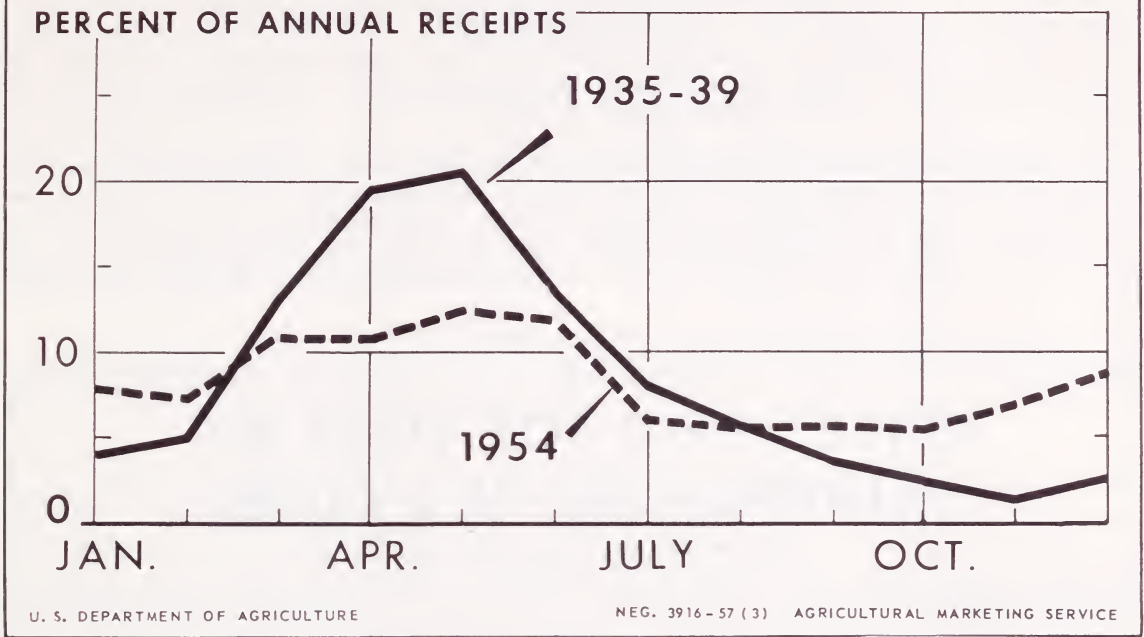


Figure 1

of eggs and city distribution patterns. These "normal" variations may be fully discounted by the egg trade and therefore have little or no influence on egg prices. Statistical analysis of egg prices in Chicago reveals no consistent or important differences among days of the week in either average levels or direction of change. This means that no significant price or income advantage is to be gained by a country shipper in selecting a particular day of the week for price determination and settlement under a standing quotation pricing agreement. This assumes that the same day is used over a period long enough to average out chance variations in prices.

Variations in weekly volumes of receipts, on the other hand, might reasonably be expected to be related inversely to egg prices. This relationship was confirmed by statistical analysis, but the correlation is low for the 3 years 1952-54. Several factors may account for this low correlation:

- (1) Reports of receipts of eggs in Chicago are incomplete; they were about 30 percent below estimated requirements for the metropolitan area in 1955.
- (2) Receipts data cover all grades and sizes of eggs and a variety of market channels, the relative importance of which varies seasonally and probably constantly; but price data are for particular grades and sizes of eggs and for specified types of transactions. Means are not available to compute either a composite price or the relative proportions of the several classifications of receipts.
- (3) Chicago egg prices may be so greatly influenced by other factors, such as national or midwestern production, New York egg quotations, prices in major producing areas, or egg futures prices, that relatively current variations in receipts have only minor effects on Chicago prices.

Seasonal variations in egg prices in Chicago seem to approximate seasonal variations in New York (fig. 2). These seasonal price movements do not appear to differ sharply from national price patterns. The same may be said also of seasonal variations in price differentials among the different grades and sizes of eggs.

Trading stocks of Chicago egg receiver-distributors are another factor which might reasonably be expected to influence Chicago egg prices. However, analysis revealed a low correlation between these variables. Again, this result may have been due to unavoidable deficiencies in the data or methods of analysis or to other factors. Independent receiver-distributors handle only a minor part of all the eggs received in Chicago, and the inventories of other types of distributors probably change comparatively little, since they are primarily merchandising stocks.

Cold storage holdings of eggs in Chicago are another factor which probably influences both cash and futures prices, but the exact nature of these relationships is not clear. This may result from lack of adequate data or sufficiently precise analytical tools. It also may be closely related to futures trading and prices. No attempt was made in this study to analyze the complex factors affecting futures prices and the interrelationships of cash and futures prices.

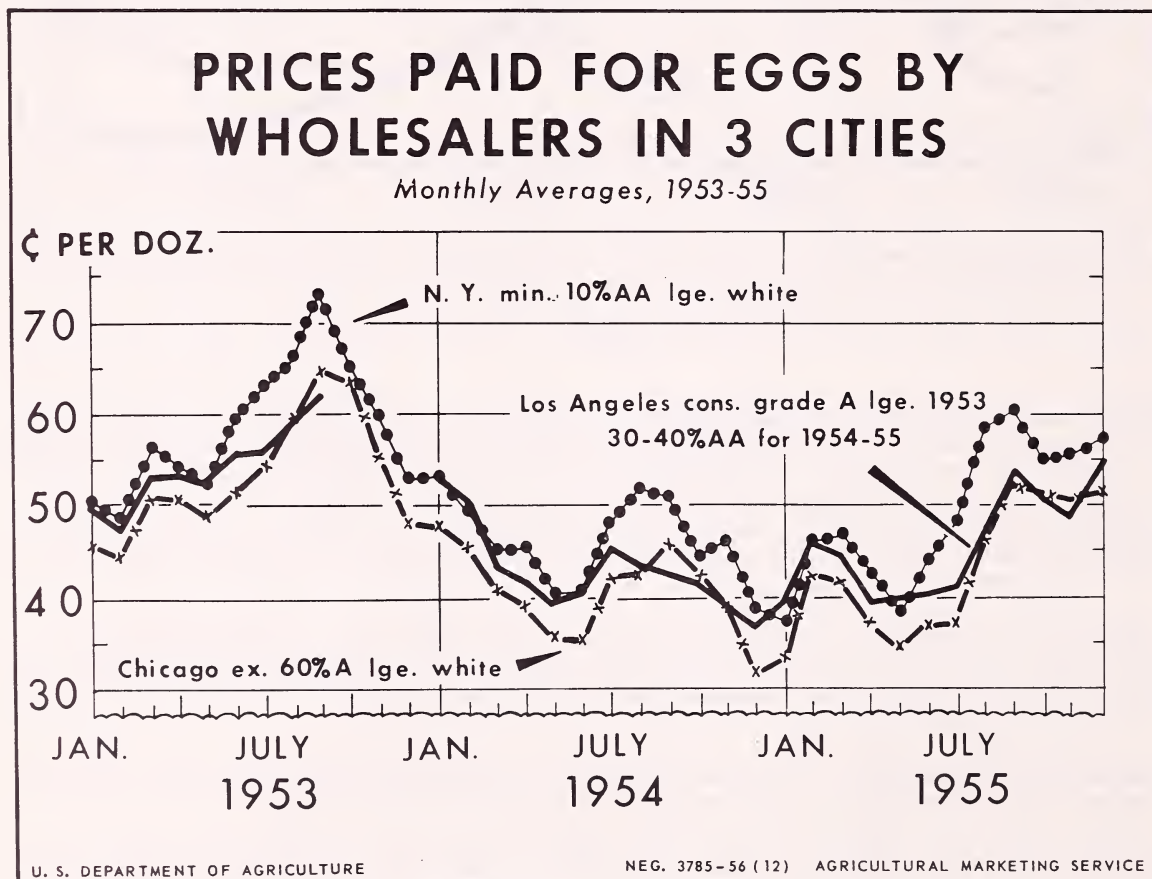


Figure 2

EVALUATION

The Chicago egg market has a complex structure. At least two markedly different "systems" of assembling, distributing, and pricing eggs are in operation in Chicago and its egg supply areas. The market is in transition. Traditional channels and practices have been and are being replaced by newer, more direct marketing methods. The traditional system, however, remains important, especially in pricing.

The Divided Market

The sharp division in the Chicago egg market in organization and practices in assembling, distributing, and pricing eggs is more pronounced than in either New York or Los Angeles.¹⁵ In New York, the transition from traditional marketing methods has, comparatively speaking, scarcely begun. Even the large corporate food chains continue to use long established assembly and pricing practices and to buy some of their needs through independent egg wholesalers. In Los Angeles, in contrast, few remnants of the old ways remain. In Chicago, the transition is far from complete. This situation has important implications for the pricing of eggs.

The two major sectors of the Chicago egg market compete primarily at the retailing and country buying levels. At the intermediate marketing stages--city receiving, wholesaling, and jobbing--the different sectors seem relatively insulated from one another. Direct contacts or trading between firms of the different sectors appear to be infrequent.

The integrated marketing firms, principally the food chains, do not buy or sell eggs at wholesale in the city. They rarely buy or sell the commercial grades of eggs traded on the exchange or in the Fulton and South Water wholesale markets.¹⁶ Not only are these firms buying eggs at a different level of trading, but they are, in a sense, dealing in a different product. That is, consumer graded and cartoned eggs and closely associated marketing services constitute, in the economic sense, a composite product differing materially from the eggs and related services bought and sold in the wholesale markets or on the exchange. Firms operating under one system have little basis for conducting business with firms in another group, either on the street or on the exchange.

This separation and insulation of the market into distinct sectors means that the integrated, direct-marketing organizations are not compelled by competitive forces in Chicago to maintain their buying prices in a fixed relationship to Chicago wholesale egg quotations. Some do, apparently for convenience or because of competitive pressures at country buying points, but others do not. Although the quotations cannot be ignored, many firms have found it possible to operate effectively without tying their prices directly to the quotations. This independence in pricing, however, is limited by competitive forces, not at the intermediate stages in marketing, but at the retail and country buying levels.

The Price-Registering Mechanism

Although the integrated and partially integrated marketing firms handle half or more of the eggs marketed in Chicago, they are not directly associated with the process of establishing wholesale egg prices in the city. The prices at which they buy and sell eggs are not reported by an established market reporting service.¹⁷ The firms whose trading activities and prices are reported regularly by the U. S. Market News Service probably handle not more than 15 percent of the eggs sold in the Chicago metropolitan area. These firms, in the main, are the receiver-distributors in the Fulton and South Water wholesale markets. The comparable group of firms in New York probably handles upwards of 40 percent of that market's total supply of eggs. In Los Angeles, the dominant group of distributors, in terms of pricing, markets 60 percent or more of that market's receipts of eggs.

¹⁵ The division, however, may be as noticeable in other large egg markets not included in this study, where the transition from the traditional methods and channels to the newer market organization is still in process.

¹⁶ This is especially true of the firms buying eggs directly from farmers at the firms' country grading stations.

¹⁷ However, the firms report volumes of eggs received to the U. S. Market News Service office in Chicago.

The Daily Spot Call

Despite the importance of "direct" marketing methods for eggs in Chicago, the daily spot call of the Chicago Mercantile Exchange remains the basic price-registering mechanism in the market. It is supplemented in a material way by the results of street trading reported daily by the Market News Service. But the quotations formulated by a private market reporter, largely on the basis of spot call activity, and posted on the information boards of the exchange, are the market base prices used by the traders operating under quotation pricing arrangements with country shippers and others. The quotations are widely used also as indicators of market values by other marketing firms.

The volume of eggs traded on the spot call normally is only a minute fraction of the total receipts of eggs in the Chicago metropolitan area.¹⁸ Volumes of cash eggs sold on the Chicago Mercantile Exchange usually are not only much smaller than those traded on the New York Mercantile Exchange, but they are also smaller in relation to market receipts.¹⁹

As in New York, the number of individuals and firms trading with some regularity on the spot call in Chicago is small. The exact number cannot be determined. Trading is conducted by a small number of exchange members who trade for clients and for their own accounts. It seems evident, however, from conversations with a cross section of egg marketing firms in Chicago in 1955, that the principal participants in the spot call are the Chicago wholesalers.²⁰ These firms constitute only one relatively small segment of the total Chicago market for eggs. They are a link in the traditional and declining market channel of farmer, country shipper, city wholesaler, jobber, and independent retailer. In contrast with New York wholesalers, these Chicago firms as a group are a relatively isolated segment of their market. Whereas the New York companies regularly trade with the food chains and other partially integrated marketing organizations, the Chicago wholesalers rarely buy eggs from or sell eggs to such firms. The wholesalers' trade contacts, therefore, appear to be more restricted than those of their counterparts in New York.

Because of this narrowness of trade contacts and trade interests of the principal participants in the spot call, the degree of "representative trading" required for accurate reflection of market values at various market levels may not be achieved regularly and consistently. This lack of "representativeness" probably is not an inherent defect of the price-registering mechanism itself. The problem may arise primarily from continued use of the quotations for purposes for which they may no longer be well suited. More basically, the problem seems to have developed because the egg industry, in adopting the newer, more direct marketing channels, has continued to depend for price-making leadership upon a group of firms which traditionally have exercised this function. The newer developments have not only reduced the size of this group but have deprived it of some of the essential bases for proper performance of the pricing function, namely, adequate volumes of eggs and breadth of market contacts and interests.

Level of Trading

The Chicago 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 market, this interpretation may have been essentially correct. But the growth of quotation pricing and other developments have almost eliminated this kind of trading on the exchange. Receivers generally find it less costly, more convenient, and otherwise more efficient to buy under quotation pricing arrangements for most of their needs and to fill additional needs by telephone.

¹⁸ Less than half of 1 percent seems to be the normal relationship. Substantially larger volumes have at times been sold on the spot call, particularly in the final or delivery months of egg futures contracts.

¹⁹ Spot call trading in New York may be normally about twice as great relative to receipts in New York as in Chicago, and New York market receipts of eggs are from 2 to 2.5 times as large as Chicago receipts. See Pritchard, N. T., and Gerald, J. O., "Pricing Eggs at Wholesale in New York City," Agricultural Economics Research, U. S. Dept. Agr., Vol. 8, No. 4, October 1956

²⁰ A few egg breakers participate also. Since Chicago wholesalers frequently act as brokers of both cash eggs and futures contracts, the nature of their activity on the spot call becomes even more difficult to define.

Under present marketing practices, spot call trading does not necessarily register market values at either recognized level of trading, wholesale selling or trucklot receiving. The quotations established on the basis of spot call trading generally lie within the range of transaction prices for these trading levels, and the trade regularly uses the quotations as base prices or as value indicators for both buying and selling. As a result, base prices need not reflect market values of a particular level of trading to provide a means of arriving at transaction prices. But it is necessary that trade understanding and use of the quotations remain essentially unchanged from day to day. It is also desirable that the egg trade have current information on the structure of premiums and discounts from the quotations and other information on market conditions which the U. S. Market News Service provides in its daily price reports from Chicago.

Purpose of Trading

The purpose of trading on the daily spot call is, technically, to buy and sell eggs. However, since only small volumes of eggs are sold on the exchange, this function alone hardly can be considered important. In a practical sense, the primary purpose is to register base prices acceptable to the group of egg traders participating in the call. In the daily spot call sessions, traders, by offering and bidding for eggs, test the sentiment of the participating group to see if adjustments may be needed in existing quotations. That is, trading seems 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 transaction prices that appear most likely to provide a satisfactory movement of eggs through regular outlets without sacrifice of usual trading margins.²¹

Whether the quotations usually understate true market values for eggs, as has been charged, is beside the point. The quotations are base prices. They are transaction prices only when premiums and discounts are absent (have zero values). The significance of this may not be generally understood, and an educational job may therefore be needed. A more important question for further research is whether the transaction prices established under the quotation pricing system promote efficiency in pricing and marketing eggs.

Price Instability

Farmers and others have complained frequently that egg prices in Chicago and some other cities change more often and widely than efficiency in marketing requires. Also it is argued that changes in the conditions affecting supply and consumption usually come about so slowly that frequent price changes are not justified. Wholesale egg prices in Chicago changed in 1953 and 1954 on the average about twice to three times per week, or at about the same frequency as in New York in the same years. In contrast, prices changed in Los Angeles on the average about once each two weeks. Unfortunately, satisfactory criteria are not available for evaluating the reasonableness of these differences among markets in relative stability of prices. Insights on this problem, therefore, must be sought in study of the structure of markets.

Certain characteristics of the organization and functioning of the Chicago egg market may, but do not necessarily, create price instability. Price-registering activities are conducted by traders representing only one segment of the market. This is the segment with the least stable operating volumes; that is, wholesalers' receipts of eggs vary from day to day and week to week considerably more than do receipts of the food chains and other integrated or partially integrated marketing firms.

The reasons for this situation are readily apparent. As a condition of remaining in business, wholesale receivers must stand ready at all times to receive eggs from any seller and to deliver eggs to any buyer at a stated price. In contrast, many other buyers can and do restrict purchases to estimated immediate needs of regular outlets. This

²¹ Trading may at times be influenced by other factors such as the desire to avoid losses or to secure gains on stocks on hand and to secure eggs for delivery on futures contracts.

concentrates much of the variability in supplies in the whole market into a small segment. At the same time, the wholesalers' market outlets over the years have diminished in scope and quantity. Opportunities for efficient, quick disposal of surpluses have accordingly been reduced. Frequent, and occasionally wide, price adjustments under such conditions become necessary to clear market channels.

Furthermore, it is doubtful that this segment of the market can be expected to reduce variations in operating volumes and prices materially. The trend from traditional marketing channels toward more "direct" marketing methods appears to be firmly established. Wholesalers' outlets and operating volumes, therefore, seem more likely to decrease than to expand. In the meantime, the average firm can do little more than attempt to retain as much business as possible, to secure satisfactory operating margins irrespective of price levels, and to avoid the risks and uncertainties inherent in holding large inventories by regularly seeking prices which will "clear" the market currently.

Use of Chicago Quotations

In general, the suitability of Chicago egg quotations in pricing eggs under the present pricing system depends largely on the closeness, in the economic sense, of the particular transactions and traders involved to the Chicago wholesale egg market. Within the Chicago market, and for the country shippers closely associated with the market, the quotations may be used with satisfactory results.

As the marketing area under consideration is broadened, however, the suitability of the Chicago egg quotations in fixing transaction prices under quotation pricing agreements becomes questionable. Evidence of this may be found even within Chicago, where some marketing firms are following pricing policies which utilize New York egg quotations or are in other respects independent of the Chicago quotations. As noted earlier, the primary cause of this development is the substantial decentralization in marketing resulting from the development of modern techniques of transportation, communication, and distribution. Other major changes in production and marketing affecting the structure of egg markets are the sharp declines in seasonal variation in egg production, greatly reducing the need for storage and wholesaling operations, and the shortening of marketing channels made possible through shifts in egg production toward areas near major cities.

Although central market quotations will continue to be used in price formation, their influence seems destined to decline. Egg trading and price formation, once largely centered in a few central markets, now involve far wider areas of action. 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 may still be using Chicago and New York egg quotations and price reports in pricing eggs which do not enter either city, simply because these quotations and reports are the least unsatisfactory of the small number of available alternative sources of price information.

Recommendations

Serious consideration needs to be given to the development of more comprehensive price and market reports for the Chicago egg market. Present reports cover the marketing conditions and activities of only a small and declining fraction of the total market. Reports of wholesale selling prices are based on small volumes of street and exchange trading. Current reports do not cover the prices paid or received by the firms now handling the bulk of the eggs received and sold in Chicago. They do not provide information on market conditions, prices, and services involved in marketing graded and cartoned eggs.

Among the price reports which may be considered as replacements of or as supplements to present reports are: (1) Prices paid by city receivers for (a) cartoned eggs by grade and size, and (b) loose eggs by grade and size (including unclassified or current receipt eggs), and (2) prices paid by retailers (and perhaps institutions) for consumer

graded (a) loose, and (b) cartoned eggs delivered to stores and f. o. b. distributors' houses. In addition, there is a need for more information on market conditions and prices paid and received at country points in the areas in the Midwest now shipping eggs into Chicago. At present, research is under way to develop a report of prices received by trucklot shippers of eggs in the Midwest and to develop a national weekly report of movement of eggs from farms into principal commercial trade channels.

The egg trade also might consider the elimination of spot call trading on the Chicago Mercantile Exchange. The decline of the traditional marketing system in which spot call trading was an integral and essential part and its replacement in large measure by more direct, integrated marketing methods already have eliminated most of the basis of such trading. This trend appears to be continuing. Therefore, it is reasonable to inquire how long spot call trading, already at a low ebb, can continue in Chicago. Furthermore, the needs of the trade for price and other market information essential in daily price formation appears to be adequately supplied by the Market News Service and private reports in markets without exchanges.

UNANSWERED QUESTIONS

This preliminary study of the Chicago egg market has revealed the need for further analyses of several aspects of market structure and practice. Some of the problems to be treated more fully in a final report include: (1) The need for and nature of expansion and other changes in market information in Chicago and its principal supply areas; (2) the roles of egg distributors of various types in the process of price formation in Chicago; (3) possible economic effects and relative merits of altering the basis of quotations under a quotation pricing system, including possibilities of using prices to retailers as base prices; and (4) possible impacts of the continuing trend toward integration of egg marketing functions on price formation processes, market channels, market structure, and marketing costs.

PART II--ST. LOUIS

The St. Louis, Mo., metropolitan area provides outlets for an estimated 30,000 cases of eggs a week for farmers and country shippers in large nearby areas of Missouri, Illinois, and Iowa. Throughout these supply areas, the prices of eggs established in St. Louis are generally believed to have some influence on prices paid producers and shippers for eggs.

MARKET ORGANIZATION, CHANNELS, AND PRACTICES

The total number of receivers and distributors of eggs in St. Louis is not known. Upwards of 50 receiver-distributors may be large enough to be considered of commercial importance in the market. This number does not include the egg-breaking companies or the large number of small vendors of eggs to consumers and retail stores.

The typical "commercial" receiver-distributor of eggs in the city appears to be small in relation to receivers in Chicago, New York, and Los Angeles. The number of firms, therefore, is, in comparison, large in terms of relative sizes of metropolitan areas. A partial explanation of this may be that few St. Louis egg receivers are specialized handlers of eggs. Many are engaged in receiving and distributing poultry, butter, cheese, and other products.

The 18 egg receivers interviewed in 1955 ranged in volumes of eggs handled from 500 to 75,000 cases a year. As a group, they handled about 9,000 cases a week, or about 30 percent of the market's estimated needs of shell eggs. The 5 largest firms received about 6,000 cases a week, or two-thirds of the eggs received by the group.

Types of Receivers

The principal receiver-distributors of eggs in St. Louis, exclusive of the egg breakers and chain stores, may be divided into two groups on the basis of their marketing channels and practices. The fully or partially integrated firms constitute the more important group in terms of egg volumes. The second group may be classed as primarily wholesale receivers.

Independent Integrated Distributors

Most of the largest egg dealers in St. Louis assemble, candle, carton, and distribute eggs to retail outlets. Some of the smaller firms also have similarly integrated operations. These dealers collect eggs from farms and country buying stations near St. Louis, using their own trucks. Most of the farms have flocks of commercial size but average smaller than those in the supply areas near New York and Los Angeles. Egg purchases generally are made on the basis of the grade and size yields of individual lots of eggs, determined by candling in buyers' plants. U. S. consumer grades are used. Producers are paid publicly announced paying prices, f. o. b. St. Louis, cases returned. These prices are reported daily by the U. S. Market News Service and a private market reporting company.

Formal contracts between producers and dealers governing egg purchases are rare. Informal agreements or understandings between dealers and producers are generally oral in nature and conform to a pattern of trade practices established and maintained in the market by competition among dealers. Producers and country shippers appear to continue to sell to a particular dealer so long as the prices paid and services given by the dealer remain satisfactory in relation to available alternatives.

An exception to this general practice is the marketing contracts between the farmers' cooperative association and its producer members. Under these contracts, designed to encourage production of uniformly high quality eggs in all seasons, producers agree to follow certain production and marketing practices and to market eggs through the association. The contracts also provide for premiums over reported paying prices for eggs in St. Louis under some conditions.

The independent, integrated dealers visited in 1955 purchased about 71 percent of their egg receipts directly from producers in nearby areas of Missouri and Illinois. Nearly all of the remainder was received from country shippers in Missouri, Illinois, and Iowa. Purchases from other dealers in St. Louis were a relatively small part of the total receipts of the group.

Retail stores were the principal outlet for eggs handled by these distributors. The sales breakdown in 1955 for the group was approximately: (1) Independent and chain retail food stores, 70 percent; (2) egg breakers and (much less important) other dealers, 22 percent; (3) public eating places and institutions, 5 percent; and (4) dealers outside the metropolitan area, 3 percent.

Receipts of eggs in St. Louis appear to be heaviest on Tuesdays, Wednesdays, Thursdays, and Fridays. Sales to egg breakers and other outlets do not seem to have a definite pattern. Dealers tend to move eggs to their outlets as rapidly as possible and to maintain only small inventories. The pattern of receipts is affected by country assembly route schedules as well as by the pattern of deliveries to stores and other outlets.

Independent Wholesalers

Wholesale receivers of bulk eggs in St. Louis generally purchase "farm-run," or unclassified, eggs from producers, country stores, and hucksters. These firms appear to be ready at all times to buy and sell eggs at a price to anyone. Their receipts, as a result, tend to vary markedly on a seasonal basis, and a considerable proportion comes from many small farm flocks either directly or indirectly. Purchases are made on the

basis of informal understandings or accepted trade practices at prevailing prices reported by the private market reporting company, cases not returned.

Most of the eggs received by the wholesalers are sold without candling or cartoning. The firms' principal outlets are the egg breakers in the city. In 1955, the sales breakdown for the group was approximately: (1) Egg breakers and other dealers in the city, 61 percent; (2) retail food stores, 31 percent; and (3) public eating places and institutions, 8 percent.

Chain Food Stores

Chain food stores in St. Louis receive eggs through several procurement programs. Most buy from independent distributors. Others buy from country shippers and, through their own grading and cartoning plants, at country points from farmers.

The chains purchase eggs from distributors in the city on a graded and cartoned basis, delivered either to retail stores or to central chain warehouses. Purchase arrangements are generally made orally, and the chains determine the volumes of each grade and size of eggs to be delivered.

Only one chain food store organization operates a candling and cartoning plant in St. Louis. This firm buys eggs from country shippers and from other dealers in the city. Another firm operates country grading and candling plants near St. Louis. Other chains purchase cartoned eggs from country shippers much as do the stores buying from distributors in the city.

Egg Breakers

Egg-breaking companies are an important segment of the market for shell eggs in St. Louis. During the spring months of generally high local production and heavy receipts of eggs in the market, breakers provide a much needed outlet for the surplus over current consumption. The purchase of eggs by breakers in these periods no doubt has price-supporting effects, not only on farm-run or unclassified eggs but also on graded eggs. The breakers also are an important outlet for dealers for cracks, stains, and undergrades not suitable for sale to consumers for shell egg uses.

Breakers purchase eggs from dealers in the market and are the principal outlets for some dealers. Purchases are made also directly from producers and country buying stations at announced paying prices. Prices paid wholesalers frequently are about a cent per dozen above prices paid farmers for eggs of comparable quality. This difference may reflect differences in procurement costs between direct buying from farmers and buying through city wholesalers of eggs. Prices paid by egg-breaking firms are not reported as such by either market reporting service, but may be reflected fully in dealers' reported paying prices.

National Meat Packers

National meat packing companies have discontinued grading and cartoning operations in St. Louis. They distribute small volumes of eggs to retail stores, hotels, and restaurants. These eggs are purchased from egg dealers in the city and from country grading and cartoning plants. Shipments of eggs from company-owned buying stations are directed from company offices in East St. Louis, but these eggs usually do not enter the St. Louis market.

Establishing and Reporting Egg Prices

St. Louis egg prices and market information are collected and reported by the St. Louis office of the Dairy and Poultry Market News Branch, Agricultural Marketing Service, U. S. Department of Agriculture, and by the O'Conner Market Reporter Company. The reports of the two organizations are, respectively, the Dairy and Poultry Market Report and the St. Louis Market News Reporter.

The prices reported in these daily releases are the prices paid by firsthand receivers of eggs in St. Louis for two sets of grades of eggs. Prices of wholesale grades of eggs are reported on the basis of eggs delivered in St. Louis in 30-dozen cases without return of cases. Prices of U. S. consumer grades and sizes of eggs are reported f.o.b. receivers' plants in St. Louis with cases returned. On the latter basis, grades and sizes are determined by candling in St. Louis buyers' plants.

These reported prices are the actual paying prices of receivers of eggs. Base prices or quotations comparable to the quotations published by private reporting firms in New York and Chicago apparently are not established or reported in St. Louis. A formal mechanism for the establishment of such a quotation apparently does not exist and prevailing trade practices may or may not constitute a form of quotation pricing system.

Trading in eggs has not been conducted on the St. Louis Butter, Egg and Poultry Exchange since early in World War II. A few exchange members still meet regularly to hear oral reports of the prices to be reported later in the day in the St. Louis Daily Market Reporter. The exchange does not appear to have any influence on egg prices in the city.

The manner in which the prices become established each day is not known with certainty or exactness. A small number of firms, primarily the larger receivers, may be the dominant forces in the St. Louis egg market with respect to prices and related trade practices. At least some of the egg dealers and others in the market interviewed in 1955 referred to a few large distributors and egg breakers as price leaders. One firm was mentioned as a price leader by almost everyone interviewed, and the breakers apparently exert considerable influence on prices at times, but not in all seasons. Many smaller dealers may follow the prices reported in the daily market reports, using them, in a sense, as quotations. Although this sort of price following, including the practice of assuring patrons that paying prices will always bear a definite relation to reported prices, may be a form of quotation pricing, trading in St. Louis does not appear to be conducted for the purpose of establishing a quotation to be used as a base price. And the U. S. Market News Service seems confident that it is now securing prices on a large enough volume of open-market trading to provide adequate coverage for accurate price reports. Furthermore, the reporters have indicated that no price information is received in the form of a quotation combined with a differential, and have noted occasionally that firms other than those generally reputed to be price leaders have led the market up or down.

The procedures used by the reporters for the Market News Service and the O'Conner Market Reporter Company in collecting and reporting egg prices and other important market information appear to be essentially similar. The U. S. Market News reporter contacts from 12 to 15 egg receivers daily, both in person and by telephone. No dealers in East St. Louis, Ill., are called. These contacts are made each morning. Information is secured on egg receipts, movements of eggs into trade channels, and prices paid for eggs of various grades and sizes during the preceding 24 hours. This information is studied and determinations are made on the prices and price ranges to be reported. The reporters also prepare their comments on the current condition of the market.

Both the St. Louis Market News Reporter and the Dairy Poultry Market Report are released to radio and television stations and newspapers about noon of each market day. The USDA report is mimeographed and mailed free to individuals who by their request are on the mailing list for the report. The private report is mailed to paying subscribers.

In addition to information on the St. Louis market, the Government report summarizes market information received by leased wire from market news offices in New York, Chicago, Des Moines, and other points. This includes information on current prices, market conditions, prices of egg futures contracts, purchases and prices paid by the Quartermaster Corps, and cold storage holdings of eggs.

The prices reported and the analyses of market conditions in the Government and private market reports appear to be in agreement much more often than they are at variance with one another. This is to be expected, since the reporters use essentially similar procedures, and contact, for the most part, the same egg dealers. For example, during the 86 trading days in April, June, September, and December 1954, the two reports gave identical price ranges on 51 days. On 25 days, the commercial report indicated wider price ranges than those reported by U. S. market news. On 10 days, the commercial report indicated a 1 cent per dozen narrower range.

This similarity of the two reports with respect to prices and price ranges is particularly interesting in the light of some of the reasons given by egg dealers in St. Louis for preferring the commercial report. Many dealers stated a belief that the commercial report generally reports a single price and at other times reports a narrower range of prices. Perhaps the principal reason for their preference, also stated by most dealers, was custom or habit. A few dealers also complained that the two reports occasionally created confusion among producers and shippers who heard the market news report on the radio and read the commercial report in one of the St. Louis newspapers.

PRICE RELATIONSHIPS

St. Louis egg prices show the wide seasonal fluctuations, the relationships between grades and sizes, and the intermarket price relationships to be expected of a market located within the great West North Central States surplus egg producing region. Egg prices usually are lowest in the spring when the rate of egg production is high. During the summer, when both production and average quality fall, prices rise, especially on the higher grades of eggs, reaching a peak usually in September and October. As replacement layers come into production in the late fall and winter, prices usually decline again.

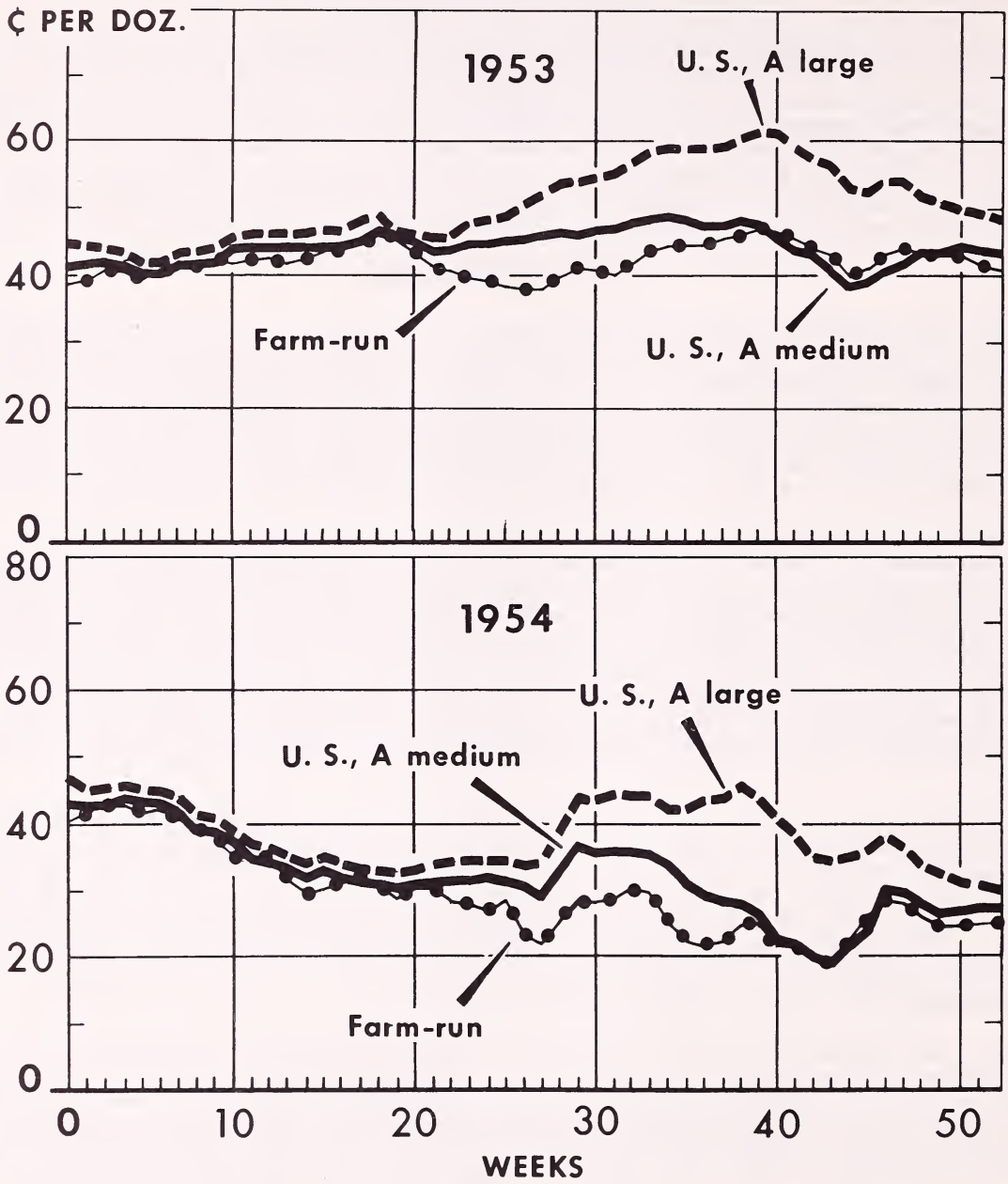
The extent of seasonal variations in prices differs somewhat among the various grades and sizes of eggs. During the first half of the calendar year, when production of large eggs is high and average quality is good, prices paid for U. S. consumer Grade A Large and Medium eggs and farm-run eggs are fairly close together. Prices paid for Medium A eggs average only about a cent per dozen above prices paid for farm-run eggs and only 2 to 3 cents per dozen below A Large eggs. In the second half of the year, however, as total production falls and as the production of the larger sizes and higher qualities of eggs falls even more than total production, price differences between the grades and sizes widen sharply to perhaps as much as 10 to 18 cents per dozen (fig. 3).

Prices of eggs in St. Louis are closely related to prices in New York, Chicago, and probably most midwestern cities. The patterns of price movements in these cities are quite similar, but prices in St. Louis average lower than prices in both Chicago and New York (fig. 4). In 1953, St. Louis prices to producers and shippers for consumer Grade A Large eggs averaged 2.3 cents per dozen below Chicago wholesale prices of Large Extras, minimum 60 percent A quality, and nearly 5.4 cents per dozen below prices of midwestern Large Extras, 65-70 percent A, in New York. In 1954, these differentials averaged about 0.5 cent per dozen smaller.

St. Louis egg prices must of necessity be closely related to prices in other midwestern markets and in New York and various eastern cities. Many of the producers and shippers in the St. Louis egg supply area sell eggs in these alternative markets. St. Louis prices can also be expected to be below prices in markets east of the city because it is in the primary surplus egg producing area in the nation. It does not follow from this, however, that prices in St. Louis must maintain a definite relationship day by day with any other market (figs. 4 and 5). Nor do the available price data indicate that prices in St. Louis either persistently follow or lead prices in other important cities.

EGG PRICES PAID IN ST. LOUIS TO PRODUCERS AND SHIPPERS

Weekly Averages, 1953 and 1954



U. S. DEPARTMENT OF AGRICULTURE

NEG. 3917-57 (3) AGRICULTURAL MARKETING SERVICE

Figure 3

WHOLESALE PRICES OF EGGS IN ST. LOUIS, CHICAGO, NEW YORK

Monthly Averages, 1953-55

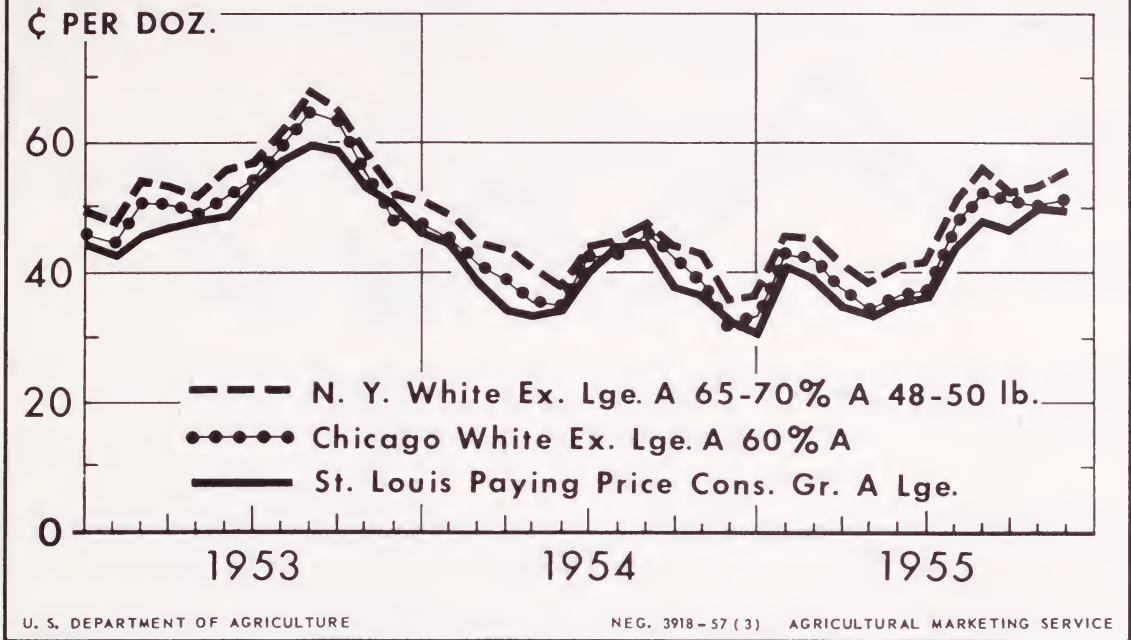


Figure 4

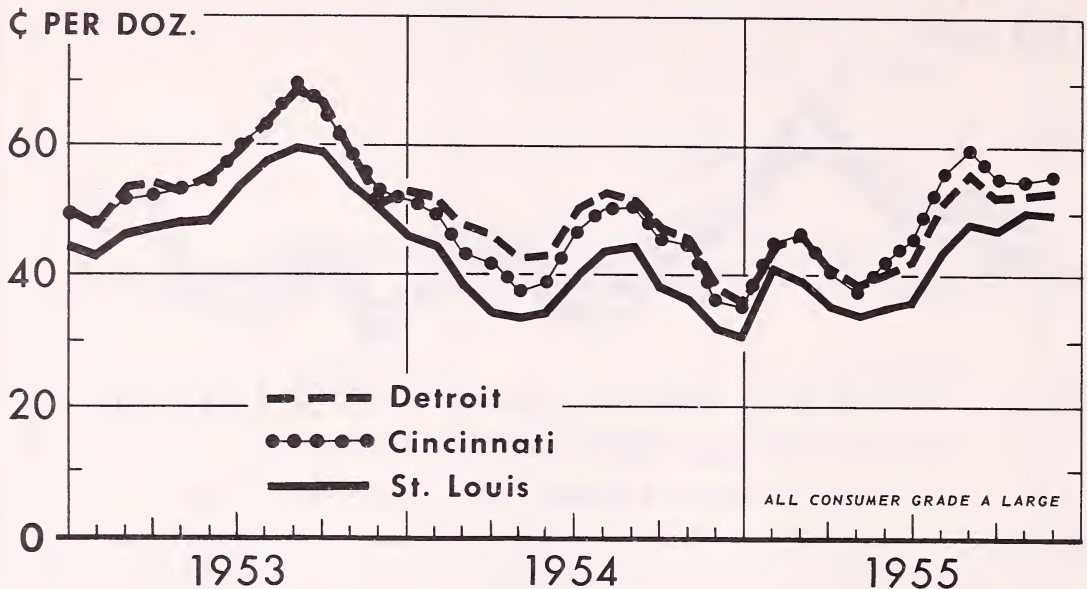
EVALUATION

St. Louis is a large commercial and manufacturing center within the nation's foremost surplus egg producing region. In comparison with Chicago and New York, it is essentially a local or regional market. Economically and institutionally, the market is organized on the basis of obtaining its shell egg needs from nearby producers and country assemblers, and of handling sizable surpluses over these needs by diversion to local and nearby egg breakers. It does not perform to an important extent either of two marketing functions generally associated with central or terminal markets--seasonal storage of eggs or transshipment to other markets. The latter operation probably is handled by trucklot shippers of eggs located within the supply area from which St. Louis receives eggs. The storage function may be handled largely by these firms also. In other words, the St. Louis egg market is primarily engaged in receiving, grading, and distributing eggs needed for consumption as shell eggs within the metropolitan area.

A second basic fact of the St. Louis egg market is that it is economically and institutionally in transition. The trend toward more direct marketing of eggs and vertical integration of marketing functions which is national in scope has had its impacts on St. Louis. Traditional marketing institutions, channels, and practices, largely developed when the railroads were the only efficient means of long-distance transportation, have largely given way to newer marketing organizations and methods. Although some of the elements of the traditional system remain active in the market, particularly several wholesale receivers, most of the eggs received in the city are handled by fully or partly integrated firms. These companies assemble eggs directly from farm, grade and carton them, and distribute them to retailers or through their own retail stores to consumers.

WHOLESALE PRICES FOR EGGS IN ST. LOUIS, CINCINNATI, DETROIT

Monthly Averages, 1953-55



U. S. DEPARTMENT OF AGRICULTURE

NEG. 3919-57 (3) AGRICULTURAL MARKETING SERVICE

Figure 5

The St. Louis Butter, Egg, and Poultry Exchange, once an important factor in the trading and pricing of eggs in the city, now is inactive. The kind of marketing system that required the services of an exchange has largely disappeared. Several wholesalers receive eggs from farmers and country shippers and sell them as received primarily to egg breakers. But the important functions of assembling many small lots of eggs and moving them forward in marketing channels in carlots to distant cities and into storage or other outlets are not now performed to an appreciable extent in St. Louis. Integration, direct marketing, the rising importance of country shippers no longer restricted to rail movements of eggs, and other factors have had their effects. In fact, if the egg-breaking plants in St. Louis were to move to country locations, following a national trend of food processing plants away from huge urban centers, the receiving of farm-run or unclassified eggs in St. Louis, now the principal operation of several wholesale receivers, might cease almost completely. In any case, further declines in the number and operating volumes of firms of this type seem likely as more direct marketing methods continue to capture more of the total market for eggs. Several such firms may expire on the retirement of the present owner-operators from active business life. A highway construction program requiring the destruction of many buildings in the present wholesale produce district of the city may eliminate others.

Movement of egg candling and cartoning operations to country egg assembly points, a trend which is national in scope, may eventually alter the structure and operation of the St. Louis egg market still further. City dealers would then be left, as a few now are, with only the major functions of receiving graded and cartoned eggs from country plants and of distributing them to retail stores and other outlets.

A third important feature of the St. Louis egg market is that egg marketing is in the hands of relatively small firms in terms of volume of eggs. There are no "giants" in the market. This has important implications for pricing. Although a small group, consisting of the principal egg dealers in the city, are generally considered within the trade as price leaders, the strength of this leadership position may not be great or firmly established for several reasons:

(1) Some of the small firms which appear generally to follow a policy of accepting the paying prices announced by the principal dealers can and do deviate from these prices. At times the independent action of such dealers has led the market up or down and has established the ranges of prices reported by the U. S. Market News Service.

(2) The egg breakers apparently exert considerable influence on prices of eggs in St. Louis. Although they buy principally "farm-run," or unclassified, eggs, their operations are closely watched by the trade because of the indirect effects on prices of graded eggs.

(3) The chainstores and country assemblers operating in the supply areas near St. Louis may indirectly influence St. Louis prices considerably by setting their own paying prices to producers and by diverting supplies of eggs to or from the city.

For these reasons, the questions of price leadership and price establishment remain in doubt. Much additional information on these important aspects of pricing remains to be gathered and studied before definitive conclusions are reached on them and on closely related aspects of the structure of the market.

In contrast with New York, Chicago, and Los Angeles, where different systems of quotation pricing can be readily observed and described, quotation pricing in St. Louis is obscure if it exists at all. Market reporters indicate that the price information received by them consists of prices actually paid by the reporting firms and that reporting firms do not indicate that these prices were established through a quotation and price differentials. Although some firms apparently use published price reports as guides in establishing their own paying prices, and assure producers and shippers that paying prices will be in the range of reported prices, this use of the price reports may or may not constitute a system of quotation pricing. It may be primarily a technique used by firms of relatively weak marketing position to assure themselves and their patrons that their prices are within the range of competitive prices in the market. Although more information on methods of price determination in St. Louis is needed, it seems fairly clear that quotation pricing is not the dominant technique there. Furthermore, to the extent it is used, if at all, considerable flexibility in price formation appears to prevail.

Finally, present methods of pricing and reporting prices of eggs in St. Louis appear to be, on the whole, satisfactory, given the existing organization of the market and its status as an important egg consuming center within a major surplus egg producing area. The dealers and others closely associated with the St. Louis egg market interviewed in this study expressed no serious complaints against existing methods of pricing and price reporting. Participation in the price-making process apparently is broader than the small group of firms generally considered within the market as the leading companies. The U. S. Market News Service appears to feel confident that its price reports are based on a sufficient number of actual transactions daily to assure a satisfactory level of accuracy in published prices.

For such major problems as excessive price variability, the appropriate solution for St. Louis may involve basic economic forces outside the market. That is, the St. Louis market, because it is so much a part of the largest surplus egg producing area in the United States, may be relatively powerless to effect satisfactory solutions of these problems. They involve far wider areas of action. There remains, however, the need to be alert and responsive to changes in marketing methods and market structure which are constantly being made.

UNANSWERED QUESTIONS

This preliminary study of the St. Louis egg market provided some needed information on the organization of the market and on pricing practices, but it leaves unanswered several questions basic to a complete analysis. A few of these questions to be treated more fully in a final report include: (1) The roles of egg distributors of various types in terms of basic marketing functions performed in the process of price formation; (2) the possible impacts of two trends, integration of egg marketing functions and movement of egg candling and cartoning to country points, upon price formation processes, market channels, market structure, and marketing costs; and (3) the need for and the nature of expansion and other changes in egg market information in St. Louis and, particularly, its principal supply areas.

