

GEOGRAPHIC PRICE STRUCTURES

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I

INTRODUCTION

When the businessman quotes a price for his product, he must, in the long run, set an amount which covers his manufacturing and selling costs and which makes allowance for various conditions of sale, one of the more important of which is the incidence of the freight charges. The cost of transportation must somehow be included in the final price of a commodity. The different methods and practices for accomplishing this end—for distributing freight charges among buyers and sellers—have developed certain patterns called *geographic price structures*. These structures vary from industry to industry and within industries or even within firms, but whatever the geographic pricing method, it determines the amount of freight costs each buyer must pay in the purchasing of a product.

The form of the geographic price structure for any commodity reflects the operation of numerous factors, the more important of which are “the intensity and focus of competition including the relative emphasis upon price or nonprice rivalry, the degree of geographic concentration of the industry, the location of sources of supply in relation to markets, the relative importance of transportation costs as an element in the price of the commodity, the channels of distribution utilized, the extent of economic concentration among sellers and among buyers, the interest of sellers in maintaining control over resale prices and conditions, etc.”¹ The way in which these factors are reflected in price structures is influenced much by the freedom possessed by individual sellers or groups of sellers in formulating and maintaining price policies.

Pricing policies “affect competitive relations among producers, price levels, product structures, forms of retail and wholesale distribution, existence of branch plants, the degree of vertical or horizontal integration, and many other important aspects of the industrial structure.”² Pricing policies also exert an influence upon the location of industry.

Generally speaking, the pricing policy of an industry will be determined by two broad sets of conditions: (1) the direct effect of the final price upon consumers

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¹ S. NELSON AND W. F. FRENCH, JR., *GEOGRAPHIC PRICE STRUCTURES*, pt. II, 275 (TNEC Monograph I, 1940).

² G. Ackley, *Price Policies*, in *INDUSTRIAL LOCATION AND NATIONAL RESOURCES*, NATIONAL RESOURCES PLANNING BOARD, c. 18, 302 (1943).

of the product and (2) the competitive relationships among the sellers of a commodity.³ Relative to (1), the geographical pattern of demand affects pricing policies. In respect to competition, there may be price policies to prevent the entry of rival producers into the field, there may be pricing methods to stabilize relations among existing competitors, or a strong firm may go so far as to drive actual competitors from the field.

Another aspect of competition is product differentiation. The greater the differentiation, the more independent the price of a product becomes of its rivals. Under such conditions sales areas are not exclusive, but overlap.

II

TYPES OF GEOGRAPHIC PRICE STRUCTURES

Fundamentally, there are two types of geographic price structures: (1) point-of-origin prices and (2) destination prices. The first type is known variously as f.o.b. point-of-origin, f.o.b. shipping point, and f.o.b. mill prices. "F.o.b." means "free on board," or the delivery free of charge by the shipper to the means of conveyance at the shipping point.⁴ Destination prices are commonly known as "delivered" prices. Reference is usually to delivery at a railroad destination, but delivery to a plant warehouse or retail outlet of the buyer may also be included. Generically, a delivered price, *i.e.*, the price quoted to the buyers, is the sum of two prices: (1) the seller's price plus (2) the transportation charge to the buyer's destination.⁵ Delivered prices exist in several variations and combinations which often seem to blend into each other. It is therefore not always easy to distinguish particular applications except by careful examination and analysis. F.o.b. point-of-origin price structures are relatively simple, but delivered price structures may and do become complex.

Various influences underlie delivered prices. "Historical development and long-established custom have played their part in some industries. Trade-association activity has had its influence in others. The sale of products under nationally advertised brands may in some instances be a determinative factor. Inadequacy of price competition will probably account for the delivered price in many industries.

"Probably the most important single determinative factor in adopting the use of the delivered price uniform for all destinations is the ratio of delivery cost to total production and delivery cost."⁶

³ For more details on these points than can be given here, see Ackley, *Price Policies*, *supra* note 2.

⁴ The term "c.i.f." (cost, insurance, freight) is often used in connection with water shipments. Under this arrangement the quoted price includes insurance and freight to a specified port and delivery in good condition to other means of conveyance at the port, with the buyer bearing the expense and risk of further transportation. Under the term "c.i.f.c." the quotation includes a provision for converting foreign exchange. With "c. & f." the buyer must arrange for insurance on a water shipment. Under still another arrangement, "f.a.s.," meaning "free alongside," the buyer accepts delivery at the wharf and must arrange for loading for overland shipment. NELSON AND FRENCH, *GEOGRAPHIC PRICE STRUCTURES*, *supra* note 1.

⁵ Fetter, *Exit Basing Point Pricing*, 38 AM. ECON. REV. 815, 817 (1948).

⁶ FTC, *PRICE BASES INQUIRY: THE BASING-POINT FORMULA AND CEMENT PRICES* 13 (1932)

Hereafter, in this discussion, the two preceding types of price structures will be designated as "f.o.b. mill" prices and "delivered" prices.

The relative importance of f.o.b. mill prices and delivered prices in manufacturing in the United States is indicated in the following table, in which are shown the results of a survey made by questionnaire by the Federal Trade Commission.⁷ Percentages, it should be noticed, apply to the number of firms included in the survey and not to the volume of business. The volume of sales for each method of pricing might be either much higher or much lower relatively than is indicated by the number of firms using a particular method. Although the data are for 1928, in view of subsequent developments, they probably give a fairly representative picture of later conditions. Later compilations of this nature are not available.

In this table approximately 44 per cent of the reporting firms employed f.o.b. mill pricing, 18 per cent delivered pricing, and 38 per cent both f.o.b. mill and de-

TABLE

Number of firms reporting to the commission, by industry groups, together with number selling exclusively on point-of-origin prices and on delivered prices and with number selling on both classes of prices.*

| Industry group | Total number firms in each industry group reporting | Number of firms with all sales on f.o.b. point-of-origin prices | | Number of firms with all sales on delivered prices | | Number of firms with sales on both f.o.b. point of origin and delivered prices | |
|--|---|---|--------------------------|--|--------------------------|--|--------------------------|
| | | Number | Per cent total reporting | Number | Per cent total reporting | Number | Per cent total reporting |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| Food and kindred products..... | 529 | 122 | 23.06 | 189 | 35.73 | 218 | 41.21 |
| Textiles and their products..... | 347 | 236 | 68.01 | 28 | 8.07 | 83 | 23.92 |
| Lumber and allied products..... | 493 | 154 | 31.24 | 114 | 23.12 | 225 | 45.64 |
| Paper and paper products..... | 138 | 72 | 52.17 | 14 | 10.15 | 52 | 37.68 |
| Printing and publishing and allied industries..... | 166 | 103 | 62.05 | 20 | 12.05 | 43 | 25.90 |
| Chemicals and allied products..... | 266 | 77 | 28.95 | 75 | 28.19 | 114 | 42.86 |
| Products of petroleum and coal..... | 41 | 22 | 53.66 | 2 | 4.88 | 17 | 41.46 |
| Rubber products..... | 50 | 1 | 2.00 | 23 | 46.00 | 26 | 52.00 |
| Leather and its finished products..... | 135 | 88 | 65.19 | 6 | 4.44 | 41 | 30.37 |
| Stone, clay, and glass products..... | 261 | 80 | 30.65 | 39 | 14.94 | 142 | 54.41 |
| Iron and steel and products, except machinery..... | 307 | 120 | 39.09 | 47 | 15.31 | 140 | 45.60 |
| Nonferrous metals and their products.... | 206 | 88 | 42.72 | 28 | 13.59 | 90 | 43.69 |
| Machinery, except transportation equipment..... | 275 | 162 | 58.91 | 18 | 6.54 | 95 | 34.55 |
| Transportation equipment..... | 100 | 81 | 81.00 | 4 | 4.00 | 15 | 15.00 |
| Miscellaneous industries..... | 329 | 199 | 60.49 | 43 | 13.07 | 87 | 26.44 |
| Total of firms in all industry groups.. | 3,643† | 1,605 | 44.06 | 650 | 17.84 | 1,388 | 38.10 |

*The reports to the commission on which the table is based were made early in 1928. The column numbers have been supplied by the author.

†The actual number of different firms represented by this total is 3,561 because of the instances where the same firm appears in more than one industry group.

⁷ *Id.* at 10.

livered pricing. The relative importance of the two price systems in the case of firms selling wholly or in part on an f.o.b. mill basis was determined by the Federal Trade Commission by combining the data for columns (2) and (6) of the preceding table. Such an analysis showed that approximately 15 per cent of the 2,993 reporting firms with f.o.b. mill prices made all or a part of these prices with partial freight allowances.⁸

Geographic pricing policies have been variously classified, depending upon the purpose or the concept of the particular writer.⁹ Because the different types of price structures represent an evolutionary process, and hence blend into each other, it is difficult to draw distinct lines between them. Any classification seems to involve overlapping. For the purposes of discussion here, the following classification is used:¹⁰

- I. F.o.b. mill price systems
- II. Delivered price systems
 - A. Freight equalization systems
 - 1. Unsystematic
 - 2. Systematic
 - B. Basing point systems
 - 1. Single
 - 2. Multiple
 - C. Zone price systems
 - 1. Single zone
 - 2. Multiple zone
 - D. Unsystematic price variation

The relative importance of the different classes of delivered prices is shown in the aforementioned survey made by the Federal Trade Commission. The total number of firms with such prices was obtained by combining columns (4) and (6) of the preceding table and it includes firms making all or a part of their sales on a delivered price basis. The results were as follows:¹¹

| | |
|---|-----------------|
| Firms with delivered prices uniform for all destinations..... | 36.21 per cent |
| Firms with delivered prices uniform for zones..... | 26.74 per cent |
| Firms with delivered prices made on basing point plan..... | 8.25 per cent |
| Firms with delivered prices unclassified..... | 28.80 per cent |
| | 100.00 per cent |

⁸ *Id.* at 11, table 2.

⁹ Classifications of geographic price structures are available in the following sources: A. R. BURNS, *THE DECLINE OF COMPETITION* 280-290 (1936); E. M. HOOVER, *THE LOCATION OF ECONOMIC ACTIVITY*, c. 4 (1948); J. F. FREDERICK, *INDUSTRIAL MARKETING*, c. 8 (1934); F. MACHLUP, *THE BASING-POINT SYSTEM* 3-17 (1949); Ackley, *Price Policies*, *supra* note 2, at 302-303 (1943); FTC, *PRICE BASES INQUIRY: THE BASING-POINT FORMULA AND CEMENT PRICES*, *supra* note 6, at 5-9; NELSON AND FRENCH, *GEOGRAPHIC PRICE STRUCTURES*, *supra* note 1, at 269-285; G. SEIDLER, *THE CONTROL OF GEOGRAPHIC PRICE RELATIONS UNDER CODES OF FAIR COMPETITION* (NRA, DIVISION OF REVIEW, WORK MATERIALS No. 86) 6-10, 28-50 (1936); C. Kaysen, *Basing Point Pricing and Public Policy*, 63 Q. J. ECON. 289, 292-293 (1949).

¹⁰ This classification is adopted from those in FTC, *PRICE BASES INQUIRY*, *supra* note 6, at 5-9, and NELSON AND FRENCH, *GEOGRAPHIC PRICE STRUCTURES*, *supra* note 1, at 277-285.

¹¹ FTC, *PRICE BASES INQUIRY*, *supra* note 6, at 12, table 3.

In this survey of the Federal Trade Commission the delivered price systems are not divided as they are in the preceding outline. The columns headed "Number of firms with delivered prices uniform for all destinations" and "Number of firms with prices uniform for zones" apparently include categories A and C of the outline.

The Federal Trade Commission study shows (1) that in many industry groups the percentage of firms using both f.o.b. mill and delivered prices is high and (2) that a large percentage of the reporting firms in every industry group use both methods. The former situation is explained by the differences between industries in respect to the products made, size and location of plants, degree of integration, and other factors. The second condition can be accounted for by the fact that any one firm may sell several different products under a variety of conditions, and that some firms have plants at different locations selling the same product under widely differing competitive, producing, and marketing conditions.

A. F.O.B. Mill Pricing

Under f.o.b. mill pricing, each seller has an announced mill or base price which is the same for all buyers at a given time. The buyer selects the mode and route of transportation and pays the freight charge to the destination. He also normally assumes title at the shipping point and therefore assumes the responsibility for presenting to the transportation agency any claims for loss or damage. The price of the commodity to the buyer rises as his distance freight-wise from the shipping point increases. All sales therefore return the same mill-net price to the seller. Such a pricing system limits the geographic radius of competition, assuming equal base prices for all producers, to the weight of the freight charges. There is a natural division of markets between rivals based on transportation costs. Whether sellers have the same or different mill prices, the market of any seller extends to the point where the sum of his base price plus freight charges is equalized with that of a competitor. The size of a seller's market will be changed by changes in his base price or in the freight rates he pays, or both.

The simplest sort of case is that of two manufacturing points having the same base price for a product and with equal mileage scales outward from them. Their market areas will be divided by a straight line half way between them and perpendicular to the line connecting them (see Figure 1).

If the freight rates from A are on a lower level than those from B or if the mill price at A is lower, or if a combination of base price and freight charges results in a lower sum than does such a combination from B, the market of A will be enlarged. The point at which the combination of base price and transportation cost is equalized will have shifted toward B, and the line separating the two markets will no longer be a straight line, but will be a hyperbola which bends around the market with the higher combination of base price plus transportation.¹² This situation is illustrated in a generalized manner by the dotted line in Figure 1.¹³

¹² This subject has been developed thoroughly by F. A. Fetter in *The Economic Law of Market Areas*, 38 Q. J. ECON. 520-529 (1924), and in *THE MASQUERADE OF MONOPOLY* (1931).

¹³ Obviously, this illustration applies to a selling, or dispersing, market. For a buying, or con-

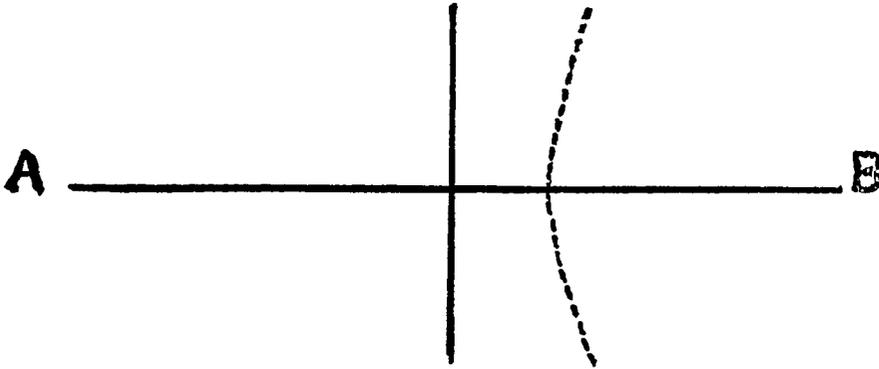


FIG. 1

Under f.o.b. mill pricing there is no relationship between the mill prices of the various sellers. Owing to differences in the costs of production at the various locations, the selling prices of mills are not likely to be uniform except at some points and in marginal zones between mills. In the long run, f.o.b. mill pricing will tend to bring prices down to the low point of actual cost, and further, will encourage the search for improved methods of production in order to obtain cost advantages over competitors. In a deficit area for a product, a producer can raise his price temporarily to that of the nearest competitor plus freight charges from the latter's location. But high profits enjoyed by the former producer would encourage him to expand his operations, and the added supply of product would cause the price to tend downward toward his cost of production.

It should be noticed that blanket freight rates will modify the operation of an f.o.b. pricing system.¹⁴ Blanket rates average the freight charges of groups of shippers, thus forcing the carriers to absorb freight on some shipments and to receive excess charges on others.

F.o.b. mill pricing may be employed when there is a lack of competitive pressure, with the sellers all being located in a restricted geographic area, so that all of them have practically the same shipping costs to the same markets. In such situations it is the usual policy of the railroads to give all sellers the same freight rates by the establishment of a group rate, which is similar to a blanket rate except that it covers a smaller area. F.o.b. mill prices are difficult to maintain unless all producers are located in a single area. The reasons for this condition are discussed later in the section on freight equalization.

F.o.b. mill prices are easy to apply also, when freight charges are a negligible proportion of the final price, when non-price factors such as style are emphasized, and when competing products are different in quality and design, even though the

centrating, market, such as the large primary markets for farm staples, the situation would be the reverse, *i.e.*, the market which offered the higher price would have the larger marketing territory, with the boundary curving around the point offering the lower price.

¹⁴ Blanket freight rates are those which are uniform for a commodity over large areas. For example, the rate on oranges from California was at one time uniform over most of the country east of Denver.

freight charge is a substantial portion of price. The system is used in the pricing of light consumer goods, furniture, turpentine, phosphate rock, automobiles, agricultural implements, Lake Superior iron ore, and nonferrous scrap metal. The price structure of the last product is controlled largely by buyers.¹⁵

Some prices nominally classified as f.o.b. mill prices may fail to meet the foregoing requirements and must therefore be classified as delivered prices. This matter is treated in the following section. On the other hand, there are those who classify f.o.b. mill prices as delivered prices.¹⁶ Such prices are delivered prices in the sense that there must always be a final price at the destination, which, in the case of f.o.b. mill prices, is the sum of the mill price plus freight charges. This price is the delivered price so far as the buyer is concerned—it is the total price which he pays—but it is not a delivered price in the sense in which that term has already been defined.

B. Delivered Prices

Under a system of delivered prices, the price paid to the seller includes both the mill price and the transportation charge, but most buyers do not pay the actual freight charge on their shipment; they pay either more or less. If the buyer pays less, the seller must bear the difference, a practice which is called *freight absorption*; if the buyer pays more, the seller receives more than he actually pays for freight, the difference being called *phantom freight*. Unlike f.o.b. mill prices, delivered prices do not reflect relative transportation costs. Under the former system no buyer helps pay for the freight charges incurred on the part of some other buyer. Delivered pricing differs from f.o.b. mill pricing in the opportunity offered by the former for discriminating in price between different sales areas. Geographic price discrimination occurs when, after the deduction of transportation charges, the mill-net price varies with the geographic location of buyers. The difference between the mill-net price on any sale and the highest mill-net price received on any sale of the same product measures the amount of freight absorption on a sale, ignoring special discounts or unsystematic price concessions.¹⁷

Delivered prices result in either (1) the payment of an average freight rate by all buyers of a product or by zones of buyers; (2) the payment of freight charges based on the distance from some production point or distribution point, no matter what the actual distance from the producer to the buyer may be; or (3) the payment of an equalized freight charge from the mill nearest the buyer regardless of the location from which the purchase is made.¹⁸ All of these practices result either in phantom freight or freight absorption. Freight absorption exists in all geographic price structures except f.o.b. mill pricing and except for producers located at the

¹⁵ NELSON AND FRENCH, *GEOGRAPHIC PRICE STRUCTURES*, *supra* note 1, at 343.

¹⁶ Ackley, *Price Policies*, *supra* note 2.

¹⁷ *Id.* at 303.

¹⁸ SEIDLER, *THE CONTROL OF GEOGRAPHIC PRICE RELATIONS UNDER CODES OF FAIR COMPETITION*, *supra* note 9, at 28-29.

basing point under a single basing-point pricing system.¹⁹ Freight absorption discriminates against the nearer buyers, and its use makes competition possible in remote markets. Discrimination against remote buyers is rare, but it is practiced occasionally by industries in which the producers are highly concentrated geographically.²⁰ The most frequent form of freight absorption is that involving a uniform delivered price, either nationally or by zones.²¹

Some f.o.b. mill price arrangements are actually delivered prices. This is true when the seller, instead of prepaying the freight charges, may sell on a basis of "transportation charges allowed" to a specific destination, under which the buyer pays the transportation costs but is allowed an equal credit by the seller. This method is the opposite of an "f.o.b. destination price," under which the seller prepays the freight charge but adds the amount to the invoice of each buyer, making the method actually an f.o.b. mill price system, except that in this type of case the title may change hands at the destination, in which event the seller would be responsible for presenting to the carrier any claims for loss or damage. This practice, however, is not common.

Although practically, when the buyer pays the freight but deducts the amount from the invoice or the seller prepays the freight, the resulting prices are f.o.b. mill prices, such arrangements may affect cash and other discounts which may be calculated on the gross amounts as a base.

If a seller gives freight allowances or in any way pays part of the freight or collects more freight than he actually pays, the pricing system is not an f.o.b. mill one.

When allowing freight, some firms do not use the actual charge to each buyer's destination, but rather, use approximate allowances which average the freight charges to various points in a territory. Each buyer uses the allowance to the point nearest his station. Under a system of freight allowances, the buyer may select the mode of transportation and he also assumes the responsibility for presenting loss and damage claims to the carrier.

When f.o.b. destination prices are employed it is easy for a buyer to compare the final prices of the different sellers, but unless the buyer knows the freight charges from different locations, it is difficult for him to compare mill-net prices, particularly if the delivered price varies directly with the freight charge in all cases.

An important reason for delivered pricing systems is the ease with which producers may police their prices. Violations of a price formula are conspicuous. The number of different prices is also reduced, which is an aid to the buyer in the comparison of prices of different sellers and at different locations. One of the first arguments put forth to justify basing point pricing was that buyers wished to know how much a product cost delivered.²² Also, the exchange of market information among producers is made easier because of the uniform basis for reports.

¹⁹ Ackley, *Price Policies*, *supra* note 2, at 303.

²⁰ HOOPER, *op. cit.* *supra* note 9, at 55.

²¹ *Id.* at 56.

²² Fetter, *Exit Basing Point Pricing*, *supra* note 5, at 815, 817.

So long as producers act spontaneously and are free to change prices to meet the individual producer's own conditions or markets, most delivered price systems tend to bring actual pricing close to the level that would prevail under a condition of individual competition. But when they are set up by some producers and enforced on others, individual action is prohibited. Any advantage which the individual producer possesses or has developed cannot be freely translated into a price to expand his own market.²³

C. Freight Equalization

Freight equalization occurs when there is more than one geographic source of supply for a commodity and producers try to expand into or penetrate each other's markets and must therefore compete in neighboring market areas with sellers who are located nearer the buyer freightwise. There are two forms of freight equalization, namely, unsystematic and systematic. The first type occurs when a seller reduces the price on a particular transaction to meet the offer of a better located competitor. The second type, which is also known as the "mill-base system," exists when a pattern of prices is observed by most or all of the competing sellers on intermarket sales. The principle assumes generally the uniformity of mill prices, which makes it possible for a producer to ascribe a higher mill price to quality or service.²⁴ With a freight equalization system, the mill-net price is reduced on distant sales but sales to nearby buyers, *i.e.*, those for which a particular seller has a freight advantage, are still made on an f.o.b. mill basis. The location of each mill governs the price in surrounding territory, and the erection of a new plant in a new territory will be reflected automatically in the delivered price in that territory.²⁵

These conditions are illustrated in Figure 2. In this diagram it is assumed that freight rates are on a distance basis and that mills A, B, and C each has a price advantage on sales within the lines that enclose each one. The dividing lines are lines along which the prices between different mills (the sum of mill price and freight rates) are equalized. If C wishes to sell at e or f, it would have to meet the price of A and B, respectively, at those places. The same sort of situation would prevail if either A or B, or both, tried to sell in the other two market areas.

Now, suppose that a new mill is built at f. This mill, assuming a base price which is competitive with A, B, and C, will have an area over which it will have a freight advantage, and prices in that area will no longer consist of the mill B price plus transportation from B, but of the mill f price plus transportation from f. If A, B, and C sell in the territory of f, they will have to meet that price. Any mill erected at a new location will effect such a change in delivered prices in its natural market area.

By this time the reader may have become aware of a possible reason for the development of systematic patterns of prices which all sellers may observe in mak-

²³ E. G. NOURSE AND H. B. DRURY, *INDUSTRIAL PRICE POLICIES AND ECONOMIC PROGRESS* 137-138 (1938).

²⁴ FREDERICK, *op. cit. supra* note 9, at 293.

²⁵ NELSON AND FRENCH, *GEOGRAPHIC PRICE STRUCTURES*, *supra* note 1, at 279.

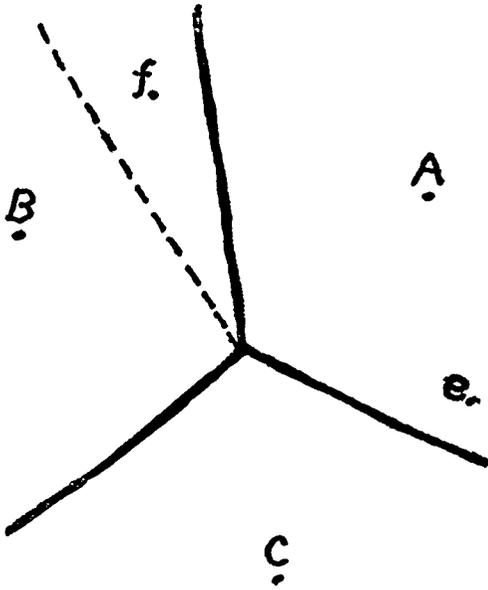


FIG. 2

ing sales outside their own natural market area. Apparently, price competition would be limited by such a procedure. Also, as is explained in the next section, patterns of systematic freight equalization could provide the basis on which a system of multiple basing point pricing might develop.

Market penetration may develop naturally when a producer with an f.o.b. mill system outgrows his local market or has a temporary surplus of output which cannot be absorbed by the territory he has customarily served and must therefore be sold in the natural market of some other producer. He sells there by meeting that producer's price while maintaining another price in his local market. If his base or mill price is the same as that of his competitor, he sells in the competitor's market by adding the freight rate charged by his rival to his own base price, thus equalizing the two prices. In this manner, every producer may be selling in the markets of several others. In any particular market, all the producers charge, not the actual freight incurred by each one, but the lowest incurred by any of them. In the type of situation just described, each producer acts individually and spontaneously, and, consequently, the system is one of unsystematic freight equalization.

Systematic freight equalization takes place when the preceding type of situation results in price patterns which are observed by all sellers and which are too complicated to have arisen spontaneously. Such systems often spring from an effort of the firms in a field to limit price competition rather than from natural adjustments to the market.

Any method of delivered pricing based on freight equalization or on an average freight rate makes possible the extension of markets far beyond the limits set by f.o.b. shipping point pricing and enables a mill to ship a great distance from its

normal market, particularly if mill prices can be maintained considerably above the competitive level. Delivered prices grow out of conditions that would lead to the overlapping of market areas, even in the absence of any formal arrangement.

Industries in which unsystematic freight equalization occurs in pricing include those producing industrial machinery, douglas fir, gasoline, and bituminous coal. Industries in which systematic freight equalization exists in pricing products include those producing salt, binder twine, many building materials, and numerous heavy chemicals. Among the building materials are lime, floor tile, sewer pipe, prepared roofing, glass, gypsum plaster, and boilers. The heavy chemicals include sulfuric acid, soda ash, acetic acid, nitrocellulose, hydrochloric acid, calcium carbide, and others.²⁶

D. Basing Point Pricing

A basing point is a geographic point from which prices to buyers are computed. The dominant feature of a basing point pricing system is the creation of a fixed, well-defined price structure with the delivered prices of all sellers being identical for a single customer, regardless of the location of the seller. For any than a mill located at a basing point the price charged the customer is the sum of another mill's base price plus what the freight charge would be if the commodity were shipped from that mill. Buyers who purchase from the basing point in their territory pay the actual freight charge; other buyers pay either more or less. At points that are nearer to it freightwise than they are to the mill which governs the delivered price, a non-basing point mill collects phantom freight, *i.e.*, it collects more in freight charges on a shipment than it actually pays the carrier. When a base mill sells in a territory where the price is governed by another basing point, it absorbs freight, *i.e.*, it pays more in freight charges to the carrier than it collects in freight from the buyer. Any mill which is farther freightwise from a buyer than is the basing point mill must absorb freight on such sales. The effects of such a pricing system are to neutralize the influence of location freightwise on the prices of competing sellers and to differentiate the net price or yield at the mill according to the location of the buyer. In other words, the sellers discriminate among buyers as to price.

Basing point pricing discriminates between buyers for two reasons. (1) The mill-net yield of non-basing point mills varies with the differences between the cost of transportation from the basing point and that from the actual point of production. (2) Even though every point is a basing point, sellers absorb freight on sales to points that are more cheaply reached by competitors.²⁷

The preceding features are illustrated in Figure 3. In this diagram, B represents the basing point in a single basing point system; N, a non-basing point mill; and C and M, two different markets. A base price of \$40 a unit of product is assumed, with transportation charges as shown by the numbers between the dif-

²⁶ *Id.* at 344-345.

²⁷ See BURNS, *op. cit. supra* note 9, at 290.

ferent points. The price of a unit of product at C is \$40 + \$3.00, or \$43. The price in C of a product from N is likewise \$43, but N charges \$3.00 in freight but pays actually only \$1.00. The difference of \$2.00 is phantom freight. Further, suppose that at N the cost of production were only \$35 a unit, whereas N is compelled to charge as though it were \$40. The possible effect of the profit as a stimulus to

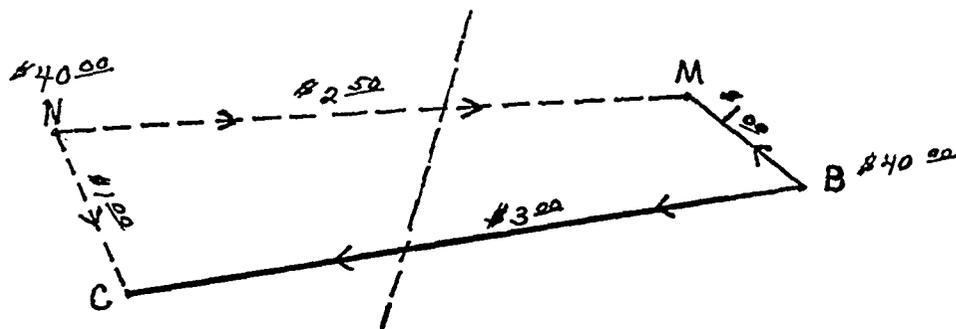


FIG. 3

new capacity at N is evident. At M, the price would be \$40 + \$1.00, or \$41. If N sells at M it must sell at \$40 plus \$1.00 for freight, or \$41, but must actually pay \$2.50 to the carrier. On sales at M then, N would be compelled to absorb \$1.50 per unit of product in freight charges.

The same diagram may be used to illustrate a multiple basing point system. The only difference between this and the preceding situation would be that N now becomes the controlling basing point at C, where the delivered price would become \$40 + \$1.00, or \$41, instead of \$43 as previously. On sales at C, B would charge only \$1.00 in freight but would actually pay \$3.00, being compelled therefore to absorb \$2.00 a unit of product. In this instance B realizes a mill-net price of \$40 on sales at M, and of \$38 on sales at C. N realizes a mill-net yield of \$40 on sales at C, and of \$38.50 on sales at M. Evidently, there is discrimination in prices as between differently located buyers of a given seller.

Usually under a basing point system all prices are not alike and all locations are not basing points. In a true basing point system there will always be some plants which are not located at any basing point.²⁸ The system may be employed for the scattered plants of one firm or for several independent producers located at different places.

Usually, two types of basing point systems are distinguished, namely, single and multiple. The former type commonly grows out of a situation in which one producer or one producing center is or has been dominant in the industry. According to one authority, basing point pricing is a practice which will perpetuate the position of advantage a firm has been enjoying, it being essential for the older firms of an industry and their different dependent economic interests that transfer of production to new regions be retarded as much as possible.²⁹ Such a price policy

²⁸ *Ibid.*; NELSON AND FRENCH, *GEOGRAPHIC PRICE STRUCTURES*, *supra* note 1, at 273.

²⁹ NOURSE AND DRURY, *op. cit. supra* note 23, at 136-137.

is also often the outgrowth of price leadership by a dominant firm or of a situation when all the firms are in one area but are not grouped closely enough so that all can have the same freight rate to any market.³⁰

Under a multiple basing point system the price to any given buyer is the lowest combination of mill price plus freight, regardless of the location of the mill from which the customer buys. Some multiple basing point systems, as for steel and cement, have evolved from a single basing point system. Other such systems have developed independently out of f.o.b. mill price systems by sellers trying to expand their markets at the expense of rival producers but trying also to avoid price warfare. The desire to match the prices of those nearest the markets and to avoid retaliatory dumping has led, often by agreement, to systematic price structures which establish price relationships by formula. The basing point system is the most important of such methods. Still other multiple basing point systems may have been adopted by agreement among producers who had been practicing systematic price equalization. This procedure would simplify the price structure of a particular industry and would provide publicity of prices throughout the industry so that a producer would not unknowingly cut under the prices of other producers.³¹ Sometimes there may be a conspiracy to fix prices, the basing point system being used as a means to this end. Many geographic price structures have not sprung from natural adjustments to the market but rather from the conscious effort on the part of firms in an industry either to limit or to prevent price discrimination, for which they may be indispensable tools.³² The choice of common basing points in an industry apparently presupposes some form of agreement or understanding.³³ Under basing point pricing a definite price is fixed for each locality by means of a formula method of selling.

Multiple basing point pricing appears to be similar to systematic freight equalization, and some authorities classify freight equalization as a multiple basing point system with all plants being basing points and with all mill prices being alike.³⁴ All competitors charge the lowest rate incurred by any of them rather than the actual cost of transportation. However, under freight equalization, each mill governs the price structure in its natural market or surrounding territory, and, as was stated previously, the erection of a new mill in a new territory will be automatically reflected in the prices for the product in that territory. This is its chief difference from the multiple basing point system.

An increase in the freight rate from a basing point to a market which remains in its territory after the increase becomes effective will result in an increase in the price of the commodity in that territory. However, it will not necessarily cause a reduction in the share of the sales made there by producers located at the basing

³⁰ Ackley, *Price Policies*, *supra* note 2, at 307.

³¹ *Ibid.*

³² NELSON AND FRENCH, *GEOGRAPHIC PRICE STRUCTURES*, *supra* note 1, at 278.

³³ G. A. Stephens, *Basing Point Pricing*, in I ENCYC. SOC. SCI. 473, 474 (1937).

³⁴ FREDERICK, *op. cit. supra* note 9, at 293.

point nor an increase in the sales of plants at locations which did not have an increase in their freight rates.

Basing point markets are characterized by (1) a high degree of standardization of product, for example, steel and cement; (2) a low value per unit of weight, causing the freight rate to be a substantial portion of the delivered price of the commodity; (3) heavy overhead costs, making the efficient scale of manufacturing operations for a firm large; (4) production frequently below full capacity; (5) specialized and long-lived production equipment; (6) market demand that is usually inelastic at and below prices which correspond to output considerably less than full capacity; (7) the prevalence of oligopoly, because of the small number of producers; and (8) production and markets that are both widely scattered.³⁵

Basing point pricing requires certain essential features: (1) basing points and base prices that are publicly known in the trade, (2) uniquely defined freight costs from every basing point, and (3) always considerable market interpenetration, *i.e.*, a mill selling at a point which, on the basis of mill price plus the transportation charge, could be supplied by other mills at a lower price.³⁶

There is usually a common compilation of freight rates in the form of a freight book used by all firms in an industry. Usually, but not always, the rates are the actual rates paid to the transportation agency. The rates charged are also usually the all-rail rates regardless of the mode of transportation employed.

Market interpenetration results in geographic price discrimination. With a multiple basing point system there usually is freight absorption and always selling costs in excess of what would be spent without market interpenetration. Basing point pricing permits selling at distant points if the general level of such prices is high in relation to the costs of manufacture. It is contended that the system encourages keen competition in business, but little competition in price. Price stability is attained without reducing competition. To avoid loss, the basing point price level must, in the long run, be raised by at least the amount of freight absorption reduced to a price unit basis.³⁷ In other words, the general level of prices for the commodity is forced above the level which would prevail in a freely competitive system by at least the amount of the extra cost resulting from market interpenetration or crosshauling.³⁸

There may also be a natural division of markets under a basing point system. A seller may concentrate his sales in an area from which he collects phantom freight and refrain from soliciting business in markets in which he would have to absorb freight.³⁹

Products which have been sold under a single basing point system are maple flooring, zinc, copper (except lake copper), industrial benzol (Omaha and West),

³⁵ For the first seven points, see Kaysen, *Basing Point Pricing and Public Policy*, 63 Q. J. Econ. 289, 290-291 (1949). Point (8) is from FTC, PRICE BASES INQUIRY, *supra* note 6, at 13, 14.

³⁶ Kaysen, *supra* note 35, at 291-292.

³⁷ FREDERICK, *op. cit.* *supra* note 9, at 292.

³⁸ See note 33 *supra*.

³⁹ C. F. PHILLIPS, *MARKETING BY MANUFACTURERS* 281 (1946).

and gasoline (group 3 district, but with considerable variation).⁴⁰ In the days of Pittsburgh-plus, Pittsburgh was the single basing point for the steel industry. Birmingham has been a single basing point for cast-iron soil pipe.

Commodities which have been sold under a multiple basing point system include steel, cement, wood pulp, sugar, southern pine, oak flooring, lead, and others.⁴¹

E. Zone Pricing

A zone pricing system may have only a single zone covering the entire country or there may be multiple zones. With a single zone, prices are quoted according to the "postage-stamp method," *i.e.*, there is a single uniform delivered price for all buyers. The aggregate prices charged are high enough to cover total freight charges, but the near buyers pay more than the actual freight rate to their destination and the distant buyers, less. By accident, some buyers may pay the actual freight charge to their location, but the prices are not arranged to accomplish such a purpose.

The seller usually quotes a single price and prepays all transportation charges. In some cases, however, the buyers may pay only a portion of the freight charges, all buyers being assessed uniformly, with the seller absorbing the remaining portion.⁴² Zone prices are then apparently a form of single basing point prices, equal to the sum of a mill price plus some form of average freight rate to the different points in the zone. Such a practice is feasible and is economical and convenient to use when transportation charges are only a small proportion of the final price of an article. It is desirable when a producer wishes to develop a national market through the national advertising of a brand name; the price may be quoted in the advertisement. The system is also an aid in resale price maintenance by a manufacturer.

Under a multiple-zone system, the zones may be large or small, and they may exist in a geographic price structure not wholly based on a zone system. If the freight charge is a negligible part of the final price, zones tend to be large; when freight is important, multiple zones may be used in order that the equalization of freight over a given zone will not create too wide a margin between the average freight rate included in the price and the actual freight charge for each customer. A feature of zone pricing, and a problem in establishing zone boundaries, is the necessary existence of sharp breaks or differences in prices on either side of a zone boundary. A simple type of multiple-zone structure exists for products which have a uniform price east of the Rockies but a higher price in the West and often in Canada.

Under a multiple-zone system of pricing and when products are differentiated, there are infinite variety and combinations of price structures to meet particular situations. When production is not standardized competing sellers need

⁴⁰ Group 3, composed largely of Oklahoma, Texas, and Missouri, governs prices through most of the midwest. See NELSON AND FRENCH, *GEOGRAPHIC PRICE STRUCTURES*, *supra* note 1, at 341.

⁴¹ *Id.* at 345.

⁴² BURNS, *op. cit. supra* note 9, at 285.

not use the same zone boundaries nor quote the same prices in each zone. Neither need prices vary between zones by the same amounts. A zone system of pricing can approximate almost any other system of delivered pricing.⁴³

Uniform delivered prices have been employed nationally in pricing many light consumer goods, hardware, business machines, electrical machinery, rayon yarn, manila rope, plumbing fixtures, batteries, coal tar dyes, aluminum, many kinds of electric wire, mahogany, and other products. Multiple-zone pricing has been employed for office furniture, mixed fertilizers, automobile tires, soap, paper and paper products, carbon black, power cable, methyl alcohol, bathtubs, soda ash, cyanamide, linseed oil, nationally advertised prepared paints, mahogany, doors, windows and window frames, the heavier articles of electrical household equipment, some food products, and many other commodities.⁴⁴

F. Unsystematic Price Variation

There are types of geographic price variations which cannot be fitted into any of the preceding price patterns, or into any price pattern, for that matter. In some cases prices may be largely out of the control of sellers;⁴⁵ in others, special competitive conditions may require deviation. For such products as brick, sand and gravel, and bread, the markets are so predominantly local that price patterns do not exist, and for other products, including most agricultural commodities and meats, the delivered prices are determined so largely by local market conditions that systematic patterns of price variation are lacking.⁴⁶

⁴³ Ackley, *Price Policies*, *supra* note 2, at 308.

⁴⁴ NELSON AND FRENCH, *GEOGRAPHIC PRICE STRUCTURES*, *supra* note 1, at 344.

⁴⁵ This may be true only temporarily, or there are some instances in which buyers instead of sellers dominate and determine price policy. Buyers may control prices in order not to bid up the prices of raw materials they need. In such cases buyers quote prices which are equalized at the point of shipment. Examples of this policy are nonferrous scrap metal, cottonseed, until recently, at least, and possibly crude petroleum. *Id.* at 284-285.

⁴⁶ *Id.* at 345.