Competitive Markets

The proposition advanced by this chapter is that futures markets closely approach the conditions of pure competition. If this is the case, the markets are a noteworthy contribution to the economic processes and a means to a better understanding of them. In this connection, one observer noted, "Here again it is somewhat curious that the futures markets have not been cast into the competitive equilibrium model, as a close approximation to the theoretical no-profit equilibrium, given the competitive conditions. But economists have tended to explain them either in terms of risk-transfer or as a game of chance, instead of receiving them as true markets. Price determination as such is curiously treated as a free gift of nature in the competitive model, instead of the economic activity that it really is."\(^1\)

If the proposition is true, the study of futures markets is worthwhile in understanding how the total of the economic processes work. This, however, is but a by-product of testing of the proposition because, if it is true, an appreciation of the competitive nature of the markets is essential to successful operations in futures markets.

A Note on Competition

In most twentieth century industrial nations there has been a trend, for three centuries or so, toward less direct governmental control of economic activity. Feudal and pre-industrial conditions were replaced by what is generally characterized as "free private enterprise" or "competitive capitalism." But it has been observed that the system is neither free, private, nor enterprising and that the owners of capital are often not competitive. A better term might be "competi-

tive price ordered system." This more accurately describes, not only the system as it has evolved, but characterizes one widely accepted concept of the optimum system. In addition, it helps in delineating an appropriate role for government to play. But for more than a century the downtrend has reversed and governments of the industrial nations have played an increasing role in economic activity and their appropriate role is in public debate. They own and operate productive resources, redistribute income, and establish the rules within which private enterprise functions. Some enterprises are better operated by government, as the highway and educational systems. A strong case is made for some redistribution of income from the more productive to the less fortunate; only the amount is at issue. Governments have widely accepted regulatory functions relating to health, safety, and violations of competition. These several things touch on the pricing system and affect its operation. The generally accepted proposition is that where the competitive system works to provide essential services, protect the well being of individuals from incursion from others, and equitably distribute the fruits of production it should be allowed to operate freely. The superior productivity of a freely operating private enterprise system is recognized. The right to compete, to be more productive, and to receive greater rewards is almost universally recognized as an essential part of liberty. Thus, a competitive economic system is an optimum.

Perhaps the most articulate statement of the way a competitive system works was made by Adam Smith in *The Wealth of Nations* in 1776, "Every individual endeavors to employ his capital so that its produce may be of greatest value. He generally neither intends to promote the public interest, nor knows how much he is promoting it. He intends only his own security, his own gain. And he is led in this by an INVISIBLE HAND to promote an end which was no part of his intention. By pursuing his own interest he frequently promotes that of society more effectively than when he really intends to promote it." As each of us does his own thing in pursuit of his own selfish ends he unwittingly and inevitably maximizes productivity and, hence, social welfare. As each of us chooses the job that pays the best we choose the ones that contribute to the satisfaction of the wants of others. To choose a lesser paying job in the interest of doing good in the world is to waste human resources. We should note that Smith's statement is somewhat qualified by including the word frequently. For the statement to be totally true three conditions must exist: pure or perfect competition, greed, and fear.

The statement assumes that every individual endeavors to employ his capital so that its produce may be of greatest value. It is generally true in the employment of inanimate resources as land, factories, and machinery but is not so true in the employment of human resources. People elect to work and consume at varying proportions of capacity. Somewhat less than a maximum effort is not only tolerated by society but is approved—but indolence is not. There is still a
strong work ethic that rests on a concept of obligation to further the general welfare by being productive.

But to make the system work at full tilt requires greed. It is the greedy people who are the great producers. A college placement officer submitted three students to an employer for interviews and the employer chose the one that seemed least likely to the placement officer. When asked why, the employer answered, "I asked each how much money he wanted to make in a lifetime and the winner replied, 'They haven't printed that much yet—I want it all'—well motivated."

The corollary motivating characteristic is fear—fear of not getting rewarded and not having anything to consume or of having too little. If the system pays off on the basis of productivity, fear of loss of income is an important contributor to total output, hence the general welfare. The cowards, as well as the greedy, are the nobility of a competitive economic system.

We almost universally approve of competition in economic activity as a general proposition. We extol a competitive system as an intricate mechanism of great beauty. But at the same time we seek to avoid competition for ourselves. We form conglomerates that will give us dominating market positions from which we can reap monopoly revenues. We seek to enact fair price laws that will protect us from competition. We form teacher and labor unions to negate the full impact of competitive forces. We seek licenses that will give us exclusive rights to operate television stations, bus lines, and electric utilities in restricted geographic areas. College professors and civil servants work out tenurial arrangements so that they cannot be fired except for the worst of performances. These arrangements are worked out under the most laudable banners of the public interest but one must wonder about the roles played by greed, fear, and indolence. One must wonder, too, about how valuable these protective backwashers are. Could it be that they stifle productivity and prevent individuals from rising to the top and force the more productive to share with the less?

The point of this is that it is a mistake to talk about the beauties of competition. It both rewards and punishes. It is a hard taskmaster, mean and ruthless. It has only two things going for it. First, it is inordinately productive. No other system yet devised has resulted in such rapid increases in productivity. It is often criticized for producing the wrong things as by Galbraith in The Affluent Society. But it produces the things that people want as measured by how they spend money. Galbraith's tailfins and Nader's safety notwithstanding, the automobile companies either produce automobiles that people want or go broke. Henry Ford once thought that consumers should have only black automobiles and so lost sales leadership to Chevrolet.

Second, it offers the reward of succeeding; the exhilarance of winning. It affords an opportunity for individuals to climb from one economic level to
another; to be more productive and to be rewarded for it. Perhaps more im­
portantly, it offers an opportunity to compete. And competition is a basic drive in
the psychological make-up of many people. The proposition is that winning is
better than losing but losing beats not playing.

The key to a competitive economic system is the pricing mechanism. In the
system no individual or organization is charged with the responsibility of what,
how, or for whom to produce; yet the things that satisfy consumer demand get
produced in the right amounts and get to the right places at the right time. A
competitive system is coordinated by an elaborate mechanism of prices and
markets. Everything has a price, both commodities and services. As too much of
one thing is produced, or too much of a service is offered, prices decline and
factors of production move to other products and services just as a shortage
draws factors of production. Always the migration is from the less profitable to
the more profitable; from the low priced to the high priced.

There are sometimes discussions of planned versus unplanned economies
which is the purest of nonsense; all that is at issue is how planned. There is no
such thing as unplanning. A competitive system is said to be without a central
intelligence but this is not so. Fluctuating prices, reflecting the ebbs and flows of
supplies, factors of production, wants, and purchasing power, form into a
market that is the central intelligence that orders the processes. In this context,
market is an elusive concept, being many transactions in many places at a multi­
tude of prices. The market is the omniscient invisible hand.

The system works perfectly in a situation of pure competition. But pure
competition is an economic ideal that never exists in the real world. Perfect
competition is a technical term; describing a case where no producer—farmer,
businessman, or worker—has any individual influence on price; when his
produce, merchandise, or service is of large enough size to influence price some
degree of monopolistic imperfection is present. The conditions of perfect
competition may be listed as: (1) a large number of buyers and sellers so that
no individual one has an influence on price, (2) homogeneous product, the
characteristics of which can be objectively measured and described, (3) free
entry and exit, (4) full information about production, stocks, price, and dis­
tribution, and, (5) independence and impersonality of decisions and operations.

As we have noted, nearly everyone tries to prevent the existence of perfect
competition in his own area. In addition, industrial development into an effi­
cient market structure requires large scale operations that violate the conditions
of perfect competition. It is impossible to have an efficient steel industry that
even remotely meets the conditions. Perfect competition in the railroads or
public utilities would result in duplication and waste; perfect competition in
radio and television would result in chaos.

The existence of perfect competition leads to its demise. To the victors
belong the spoils and because some competitors are better than others they grow
and achieve monopolistic dimensions. If the system permits individuals and
firms to excel, the excellence tends to result in growth to sizes large enough to exert market influence.

Thus, the model of perfect competition is more honored in the breach than the observance. It nevertheless, remains the design ideal of the private enterprise system, particularly in the U.S. As the model is breached, rules are devised to establish a simulation of competition in which no one is allowed to achieve a position of market dominance. Outstanding among these are the antitrust laws. A second kind of rule making is exemplified by labor legislation, to maintain equality of bargaining power. Both kinds of rules are designed to make the pricing system work as though perfect competition existed.

**Futures Markets and the Competitive Model**

Operations of futures markets can now be viewed against requirements of pure competition. The requirements come remarkably close to being fulfilled. There are a large number of participants in active futures markets. Cross section studies of the composition of markets on specific days reveal the presence of a high proportion of the processors, merchants, and distributors of the commodity, a substantial number of trade associated and professional speculators, and a large number of public speculators. One such analysis of the structure of the corn futures open interest on January 27, 1967 \(^2\) revealed the presence of 13,224 individual accounts, of which 2,002 were trade associated such as merchandisers, warehousemen, processors, and feed manufacturers. The other 11,022 accounts were held by people of every imaginable occupation. The geographic distribution was world-wide, involving all states of the U.S. and 25 foreign countries—even one in Liechtenstein.

The ownership was widely diffused; 5,006 accounts had positions of 5,000 bushels each, 4,382 had 10–15,000 bushels, 2,397 had 20–45,000 bushels while only 138 had positions of 500,000 bushels or more. This is not to suggest that there are not influential or dominating individual positions in some markets at some times but rather that, in major, mature markets, ownership is so widely diffused that no single position can have an appreciable influence on price behavior.

In addition, the rule requiring that all trading occur in one pit or ring assures the maximization of the number trading in a given market, preventing fragmentation into several separate monopolistic markets. The rules of futures trading have evolved in a way that minimizes the influence that any one individual can have. The face to face trading, open outcry, specified hours of trading, and equal access to all bids and offers contribute to the prevention of significant individual influence.

Product homogeneity is closely approached by rigid contract specifications.

Cash trading ranges over wide grade and quality characteristics but futures trading prices identical lots of a commodity. As we have noted, an essential characteristic of a futures contract is that individual lots be interchangeable and that quality characteristics be precisely identifiable. In this regard, futures trading can only exist when the homogeneity condition of pure competition is met.

Free entry and exit cannot, of course, be met but it is closely approximated. The system of the clearing house, which guarantees the integrity of all contracts, makes it possible to buy and sell on small margins. The contract size generally involves a relatively small quantity of the commodity—while 36,000 pounds of pork bellies or a truck load of eggs may seem like a lot from a consumption point of view, its value, from an investment point of view is not large. Small margins times small contracts equals low capital requirements for entry. It doesn’t take much money to start the game. Contract size and margin requirements are deliberately kept small to attract players. Ease of entry exists—staying may be quite another matter.

Successful futures markets are liquid; liquidity is essential to success. Trading tends to be in large volume. As we have noted, there is a lot of trading involved in relatively small changes in open interest. Investment and disinvestment by individuals can be made almost instantaneously.

The full information requirement of pure competition has two aspects, one having to do with trading and the other with information about the commodity. In all futures markets the trades must be public and the traders are obligated to see that the prices at which trades are made are recorded. These prices are given world-wide, instantaneous dissemination. In some markets, the quantities traded and the identities of the traders are also made of record. There are no secret deals at prices away from the market or quantity discounts or special price concessions to established customers, etc. The recorded price is the price to all and sundry.

As noted below, the existence of futures markets results in the generation of a vast amount of information about commodities that would not otherwise exist. For purposes having to do with the conditions of competition it is sufficient to note that the markets themselves collect and make available a large amount of information about production, stocks, movement, and use of the commodities traded. The integrity of this information is not questioned and has the status of official information.

Our final condition of independence and impersonality of operations is forced on the participants by the organization and regulation of the markets. All contracts are made with the Clearing House, the extension of credit is prohibited, all buyers and sellers must have equal access to bids and offers, and most traders do not know which principal they may be dealing with because the actual trade is with a broker. In fact, the identity of principals is closely guarded by registered representatives because their accounts are their stock-in-trade. All accounts are
identified by number in the trading processes. The rules of the exchanges prohibit favoritism—a broker can't give even his best friend a break.

As we later explore the matter of manipulation we will find that there have been instances of concerted action and trading by groups that violate the requirement of independence. But we shall find that these don't work in mature markets. There is no honor among thieves and invariably at least one tries to secretly desert the combine first or trade in opposition to it. The breadth of the markets, their impersonality and competitiveness make concerted actions exceedingly difficult. That is to say, competition tends to beget competition.

**The Generation of Information**

A spin-off result of futures trading is an increase in the amount of information relevant to commodity prices and pricing. The collection and dissemination of information is a major economic function that must be performed if commodity markets are to operate efficiently. The ordering of production, storage, processing, and distribution of commodities on a world-wide scale is extremely complex. It is done by prices and price relationships. The quality of the job that gets done is affected by the completeness and accuracy of information that goes into price determination. Anything that contributes to the completeness and accuracy of information contributes to the efficiency of the economic processes.

He who would control must first conceal. If a merchant possesses information that is not available to the people from whom he buys or to whom he sells he is in a position to reap monopolistic profits. In the cash commodity trades, some firms are very much larger than others and the large ones can afford the expense of collecting market information while the small ones cannot. The most outstanding example is the position of farmers vis-à-vis terminal grain merchants, meat packers, citrus fruit processors, potato merchants, etc. Without comprehensive information they are not in a position to form intelligent ideas about real market value and can be taken advantage of. The need for better information for farmers and country merchants has long been recognized and a large information gathering and analysis activity has been developed by the U.S. Department of Agriculture. This extensive service has been stimulated and expanded as the result of requests from commission futures merchants and their customers, those in the trades, and speculators. For example, the USDA decided to discontinue several of the quarterly reports of grains in all positions, beginning January 1, 1969. They thought that they did not have sufficient funds to compile reports accurately enough to be better than not making reports at all; that reports of questionable accuracy were worse than none at all. The complaints were so numerous and emphatic that the reports were resumed after the single omission.
Baer and Saxon\(^3\) illustrate the importance of the existence and publicity of futures price quotations with the description of an incident: "Some time ago the project of organizing a new exchange market in an agricultural commodity was under consideration. In order to sound out opinion in the trade and industry, a questionnaire was sent out to producers, merchants, and manufacturers in the field. The preponderance of sentiment on the part of operators in the commodity was adverse to the establishment of futures trading. One dealer returned his questionnaire with a 'NO' inscribed across the face of the document, and in order to discover the reasons for his opposition a member of the group responsible for the questionnaire visited the center of the adverse sentiment and interviewed the merchant whose emphatic negative had impressed itself upon him. There was no doubt in the mind of the caller that the merchants' reply had been dictated by a genuine self interest, but the same self interest was more eloquent of the outstanding value of the publication of prices by commodity exchanges than any abstract summary could possibly be. The merchant said: 'I have many buyers traveling throughout the producing areas to purchase directly from growers. They pay cash. When they go to a grower and offer him a definite price per pound in spot cash, the grower is tempted to sell without investigating prevailing prices. He often does so. But, if there were an exchange in existence, its prices would be telegraphed all over the country and would appear in every newspaper of any size and circulation. The seller would know just how closely the price he was offered approached the prevailing market price. Our buyers work to purchase the commodity under the prevailing market, and they make excellent purchases below the market. If the exchange were established, I would probably have to pay current market prices for all I buy.'" It is not suggested that the actions of the buyer are typical of the behavior of merchants generally or the buyers could long be successful with this kind of larceny but it does illustrate the importance of price publicity and the importance attributed to futures price quotations by members of the trade. They equate such publicity with increased competition. The illustration demonstrates the point that everyone approves of competition—for the other guy.

*Kinds of Information.* The kinds of information surrounding futures trading activity can be somewhat separated by source. We should first list the exchanges themselves. They own, control, and are responsible for the collection and dissemination of price quotations. It is to the best interests of the members of the exchanges that price quotations receive the widest possible coverage. In addition to the ticker quotations systems previously described, prices are broadcast by many radio and television stations and published in most metropolitan and many smaller newspapers. Part of this coverage is instigated by the exchanges and part is in response to the requests of listeners and readers who trade in futures contracts.

Some exchanges prepare daily and weekly summaries of the trading activity,
changes in prices, and a description of the factors affecting trading and prices. This kind of activity is designed to stimulate interest and business.

Most exchanges tabulate and distribute trading and market information to their members. Much of this is prominently posted on the trading floor. It relates to weather, planting, receipts, shipments, stocks, volume of trading and open interest, and to government reports. Pressure to do this was generated during the 19th century when there was so much false information available. There was a demand for accurate information made equally available to members. The result is that exchange information is given status equal to official information. In addition to this regular flow of information on a daily and weekly basis, many exchanges publish annual yearbooks of futures prices, trading, and commodity commerce for the commodities traded. These yearbooks are among the best sources of long term commodity statistics.

A second major source of market information is the federal government. The information collected, analyzed, and distributed by The Statistical Reporting Service and the Economic Research Service of the USDA is huge and comprehensive. How much of the existence of this is the result of demand stimulated by futures trading activity is conjectural. Some, but not much, is probably the correct answer. It exists for commodities not traded in futures markets. It existed for others before they were traded in futures. It is prepared for producers, merchants, processors, and distributors. No one would suggest in requesting appropriations from Congress in support of market information work that commodity speculators need it. But trade interests are vitally interested in futures markets, doubtless request the development of information useful in their futures operations, and are listened to by government.

The quality of governmental information is probably improved as the result of widespread interest in futures trading. Traders closely scrutinize information for error, generally with the benefit of hindsight, and are quick to point out errors. In April, 1965 soybeans were in short supply and the report showing stocks in all positions on April 1 was considered of major importance in indicating the direction that prices would need to take for the last six months of the crop year. If the report was small prices would have to go up, while, if large, they would decline. The report was issued after the close of trading on the third Friday in April. It was quite small. But close examination by trade analysts revealed that the stocks in Minnesota could not possibly be as small as reported. The error was called to the attention of the USDA and corrected prior to the start of trading on Monday. In the absence of futures trading, the error might have gone undetected or if detected, uncorrected, forever. Nearly certainly, it would not have been detected and corrected over the weekend. Such alert and competent critics have doubtless played a role in stimulating USDA employees to achieve their present level of excellence.

There are private surveys made of crop conditions, cattle and hog numbers,
poultry production, etc. They try to anticipate the official government information or improve on its accuracy. The basic attempt is to get information faster. Surveys are made of producers' intentions and their sales attitudes. Some of these are comprehensive while others are cursory. Some are released publicly ahead of government estimates while others are held for the private use of the compilers and their customers. How much of this activity exists is not known but it is likely that the reports that come to general attention are but the tip of an iceberg. How much would exist in the absence of futures trading is not known, but, likely, substantially less.

There are commodity news services in the business of collecting and distributing commodity information to subscribers. The subscribers are commission futures merchants, merchants, processors, distributors, and a few large scale speculators. The machines run somewhat noisily and print out information on rolls of paper. Every conceivable kind of commodity and general economic information from all over the world is gathered, fed in on the one end, and printed out on the other. It is an insidiously compulsive arrangement. To justify the subscription price the feeders must keep the machine clacking noisily away. To get their monies worth, the subscribers must read everything that comes out. Information is reported as it becomes available and thus lacks classification or organization so that the subscriber who takes his eyes away may miss something pertinent to his operation. The system is certainly conducive to the completeness of market information. Again, much of this would exist without futures markets but there would be less and it would be less widely distributed.

The commission house letters that are sent to customers, some daily and some weekly, contribute to the generation of market information and its analysis. There is a compulsion about these, too. Customers expect them on schedule so that they must be written whether the analyst has anything to say or not. The analysts are held accountable by the customers for completeness of information and its interpretation. As a result they seek complete and accurate information.

As a result of all of this one may begin to worry lest the world of commodity trading drown in a flood of information. Perhaps it shall. Just how much of this really contributes to the efficiency of the operation of the economic system may be argued. But it is all deemed essential by someone. It is all taken into account in price formulation. If completeness of information contributes to economic efficiency then we must judge that futures markets also contribute.

**Regulation to the Competitive Model**

Futures trading is a closely regulated activity. The terms of trade and trading are specified and the means of enforcement and punishment of violations are established. Nearly all of the regulation is aimed toward enforcement of the conditions of pure competition. The regulation has not developed in a deliber-
ate attempt to identify and fulfill classical economists concepts of pure competition but rather has been in response to pressure to correct trading abuses. As practices developed that gave "unfair" advantage to one party versus another or resulted in price behavior that appeared to be caused by the conditions of futures trading rather than the conditions of cash supply and demand factors, demand for regulation arose. The kinds of cornering, manipulation, concealed trading, and dissemination of false information that appeared to exist so extensively in the 1870 to 1900 period was disapproved by the exchange members and the public. They were "unfair" and were corrected by rules, regulations, and punishments. "Unfair" appears to mean unequal. If our look at the history of futures trading in the previous chapter is accurate, the guiding philosophy of regulation is that all men should be free to act as they want, so long as their actions do not deny the same opportunity to others. This implies equality of access to the marketplace and to information. The goal of regulation has been to make all men equal in their opportunity to compete—there is no implication of equality in their ability. The essential point is that the goals of regulation, as they developed, are precisely consistent with goals of establishment of the conditions of pure competition.

The rules and regulations of the exchanges are designed to govern: (1) The relations of the exchanges to the public and to State and Federal regulatory bodies. (2) The conditions under which a commodity may be traded on the exchange, (3) the relation of individual members to the exchange, (4) The relation of members to customers, and (5) The relation of members to members. One measure of the underlying philosophy of regulation is the list of offenses for which a member may be suspended or expelled. The specifics vary by exchanges but a general list is:

1. Making a false or fictitious transaction in which no change of ownership is involved.
2. Making of purchases or sales, or making bids or offers when such action is designed to bring about a condition of demoralization or otherwise register a price that does not fairly reflect true market values.
3. Engaging in reckless or unbusinesslike dealings.
4. Trading systematically opposite to the orders or market positions of customers.
5. Manipulating prices or attempting to corner the market.
6. Dissemination of false or misleading information.
7. Defaulting intentionally on the delivery of futures contract sales.
8. Engaging in any course of conduct which, aside from the violation of any rules or regulations for which other penalty is provided, a majority of the Board of Directors judge is dishonorable or detrimental to the welfare of the exchange.
The Commodity Futures Trading Commission Act is administered by the Commodity Futures Trading Commission. The demand for legislation and regulation came from producers and their organizations who protested sudden and unreasonable fluctuations in prices thought to be caused by traders in futures contracts and from customers of commission houses—the speculating public, especially farmers—who were or thought they had been defrauded by members of the exchanges. In broadest outline public regulation of futures trading is designed to: (1) assure that exchanges make and enforce rules and regulations appropriate to the maintenance of competitive trading, (2) prevent manipulation and distortion of prices, and (3) protect the public from fraud resulting from misappropriation of funds or from non-competitive trading practices.

It is illegal to manipulate a futures price or to take advantage of the ignorance of a customer in establishing the prices on his transactions. It is in violation of the rules and regulations of exchanges to make transactions and take positions for which the principal does not have sufficient money to guarantee the financial integrity of the contracts. This is in sharp contrast to the world of cash commodities. It is perfectly legal for any firm to engross the supply of cash corn and hold it for whatever monopolistic price he sees fit or for a firm to divert physical oranges into secondary channels to force the price of frozen orange juice up but let these things be done in conjunction with futures market operations and the full weight of the exchanges and the federal law descend upon the culprit. In cash transactions it is legal to bid a lower than prevailing price to the seller or quote a high price to the buyer in the hope that he doesn’t know any better but the agent of the principal in a futures contract is required to make the best possible transaction. Overextension of credit is a normal business risk in cash commodity transactions but it is in violation of the rules and regulations of exchanges when done in futures.

It should not be concluded from this discussion that the kind and amount of regulation is optimum; some evaluation of regulation is reserved to a later stage. The point to be made here is that regulation is substantial and is designed to force futures trading to conform to the competitive model.

It is easy to look at the history of futures trading and the development of such extensive regulation and conclude that traders in trading must be inherently evil to require so much supervision. It is apparent that everything noncompetitive has been tried. It also may well be that some violations of competition are more imagined than real and that less regulation is desirable. But the extensive regulation that has developed in the fish bowl atmosphere of futures trading serves to underscore our point that competition is mean and ruthless. In a sense competition is evil. Futures trading is no more or less evil than pure competition. The appropriate conclusion seems to be that futures trading is a rough game but is competitive and as fair as regulation can make it.