

Section 6

New Markets and Their Uses

A Professional's View of Hedging

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The extremely erratic swings of commodity prices in recent years have been so well publicized and their effects so far-reaching that most people can comment intelligently on subjects ranging from Soviet grain purchases to the current coffee shortage and the role of government in agribusiness. Most people are equally aware of the great risks inherent in trading commodities, but the concepts and methodology used by professional traders to minimize potential losses are considerably less well understood.

Only in recent years have managers and financiers of inventories come to appreciate the protection from price fluctuation that may be derived by hedging. As agribusiness operations have grown in size, volume, and sophistication, greater demands have been placed upon management to stabilize the erratic profits resulting from an unhedged inventory. Although hedging techniques are not new, the use of futures markets for this purpose has been until recently confined to relatively few firms. Probably the most important factors limiting their use are the capital requirement to support futures operations; the lack of knowledge of how to use these markets to hedge; and the lack of supportive techniques needed to administer this somewhat specialized market operation.

This discussion of hedging focuses upon those techniques commonly used by commercial firms to better manage financial risks incurred by ownership of inventories in a high risk environment. The philosophy of hedging has been stated as follows: "The whole purpose of hedging is to remove credit and price risks or minimize them. Hedging is not used to make a profit, either speculative or otherwise, but to insure one already existing or to limit a loss already threatened." [Julius Bernard Baer and Olin Glen Saxon, *Commodity Exchanges and Futures Trading*, Harper Bros. 1949, pp. 203-204.]

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Although this definition assumes a purist's approach to hedging, it does highlight three major points:

By protecting inventories through hedging, risk in the transaction is reduced, thereby requiring a smaller profit margin for handling. This eventually results in a lower price to the consumer than might otherwise be possible.

Because risk is minimized in the process of hedging, a higher level of inventory financing may be obtained from commercial bankers, thereby releasing capital for other purposes.

Hedging is used to facilitate cash or "real world" trading. Hedging per se should neither make nor lose money, merely transfer risks.

Hedging can be defined as the process of establishing an opposite market position in a product of equal amount and corresponding value. Hedging can be accomplished by buying or selling either "cash" or "futures" in an amount equal to, but opposite, one's existing commodity position. For every purchase there is a corresponding sale; for every sale there is a corresponding purchase. The net market position, because of this balancing or offsetting exercise, is zero. When the hedge in the futures market represents an offset against cash product ownership, it is but a temporary substitute until the time the risk is eliminated by the related purchase or sale of the cash product.

Futures Markets

Before one can engage in hedging, a vehicle must exist for accomplishing the objectives. To satisfy this need, the concept of a futures market was conceived and the markets developed. A futures market is generally considered to represent an organized public auction where buyers and sellers meet to transact their business by expressing their composite opinions in price for a given *quality* product, at a determined *time*, in a specific *place*, under established, well-defined, and carefully administered rules. Such a market represents the classic economic functions of quality, time, and place utility. For example, "Chicago December Corn" means No. 2 yellow corn (quality), delivered in a publicly supervised warehouse located in Chicago (place), for the period of the first three weeks of December (time).

Futures markets have experienced impressive growth in recent years. In 1971, the trading volume of commodity futures in the United States was 14.6 million contracts. In 1976, this volume soared to 36.9 million contracts, representing an increase of approximately 15% from the previous year. This was the tenth consecutive year of new records. In the Chicago Board of Trade (the oldest of all organized commodity exchanges), the volume for the past year was 18.9 million contracts. The dollar value of business conducted on all of the commodity exchanges in the United States in 1976 is estimated to be \$820 billion; in contrast, the dollar value of all transactions on all of the U.S. security markets for the same period was \$201 billion.

The importance of our country's commodity markets was brought to the public's attention in 1972 and 1973 by heavy grain export sales. The resulting explosive movements in price were brought about by a combination of circumstances, not the least of which was serious crop failures in several parts of the world.

These events formed the background for legislation approved in 1974 which created a new autonomous government bureau designated the Commodity Futures Trading Commission. It became the responsibility of this commission to supervise and maintain the orderly conduct of our nation's commodity markets and, of equal importance, to encourage the expansion and growth of these markets by establishing an environment which would foster the development of new contracts "where economic need exists."

It is important to differentiate between an existing or real risk and a created or artificial risk. Hedging is the shifting of an existing or real risk. As an example, when a farmer plants corn, he has established risk. The risk may take many forms but one concerns the production of a certain number of bushels of corn which in one form or another will be consumed or marketed. The risk continues, in various degrees, from seeding through the growing period to harvest when the corn is finally matured and fed or sold as a cash crop.

A created risk is best illustrated by gambling. A gambler creates an artificial risk which is not the product or function of production. Classically, it serves no economic purpose.

Futures markets are not new. The Chicago Board of Trade (essentially a commodity market) was founded in 1848 and has been actively trading since that time. Why did this market develop in Chicago? From the earliest days of our country's agricultural history, the land reaching out in all directions from Chicago has been some of our most dependable and productive agricultural land. Farmers of this area soon discovered the need for a market for their surplus grain. Chicago was the developing western financial mecca of the area and the crossroads of transportation. The rail lines between the east and west converged there; a canal system brought grain to Chicago; and the Great Lakes provided a major avenue for access to the eastern domestic and world export markets. All of the natural ingredients for a market were present. They were recognized, and an organized marketing system began. This background established the need for a futures market as a vehicle for the practice of hedging.

Since then, other important commodity markets (not all with futures markets) have developed in Kansas City, Duluth, Minneapolis, Indianapolis, St. Louis, Peoria, Omaha, and Sioux City. Transportation availability with related lower cost advantages to consuming destinations has been instrumental in the development and growth of these locations.

Commodity Hedging

Although this discussion of hedging will be confined to basic agricultural commodities and the animal sector, it should be recognized that there are futures markets in products other than basic agricultural commodities, for example, copper, potatoes, sugar, coffee, cotton, gold, silver, stud lumber, plywood, orange juice, and others. The possibility for new contracts is under constant study (fuel oil and ocean freight rates represent interesting possibilities). New contracts of great value and utility will, without question, be developed. Although the economic background for contracts may be quite different, the economic concept for all product futures is similar.

Shifting Risks

When a farmer buys land he has established a risk. When he adds to his initial investment by seeding in the spring along with the addition of the other inputs

of modern agriculture, including labor, fuel, fertilizer and herbicides, the risk is increased. Weather is another risk, as is time. It will take 85 to 125 days for the corn planted in late April and May to finally produce an ear of corn in late September and October. Futures markets and hedging are the products of the search for a method to shift these risks to someone else.

Agricultural prices are seasonal in character. They are extremely sensitive and respond quickly to price and shifts in the supply/demand equation. In contrast, copper is mined when the product is required and in direct response to price. The risk in this instance is largely one of competitive production costs, transportation efficiency, merchandising and marketing skill.

On the futures market, a farmer can sell some portion or all of his anticipated crop for delivery next December (or some other deferred period). Assuming a certain yield, he knows with considerable accuracy his cost of production. He also knows the futures price he can get for his corn contract. Therefore, he has the opportunity to minimize a major risk. In practice, it is unlikely that the farmer will send his harvested corn to Chicago to fulfill his contract (sale) on the futures market. Considering the cost of transportation to his local country elevator compared to the cost of transporting the corn to Chicago, he is usually able to receive a higher price by selling it to the local elevator and buying back the futures contract that was sold at the time of planting.

How a Corn Producer Uses the Futures Market

Cash Grain Side	Futures Contracts Side
<p><i>Cash Grain Production</i></p> <p><i>April 25, 1977 (planting time)</i></p> <p>Planted 200 acres of corn</p> <p>Estimated yield 200 acres × 100 bu. = 20,000 bu. of cash corn</p> <p>Price Chicago December 1977 corn futures is \$2.50</p>	<p><i>Sale of Futures Contract</i></p> <p><i>April 25, 1977</i></p> <p>Sold 20,000 bu. of Chicago December corn at \$2.50</p>
<p><i>Cash Grain Sale</i></p> <p><i>November 25, 1977 (harvesttime)</i></p> <p>(Sale) Sold the 20,000 bu. of cash corn produced to the XYZ country elevator at Cross Roads, Illinois at \$1.50/bu.</p> <p>Price Chicago December corn futures now \$1.50</p>	<p><i>Purchase of Futures Contract</i></p> <p><i>November 25, 1977</i></p> <p>When cash corn was sold, (Purchase) Mr. Farmer bought back his 20,000 bu. of December corn futures at \$1.50</p>
<p>(Loss) on cash \$1.00</p>	<p>(Profit) on futures \$1.00</p>

(A perfect hedge)

In the accompanying example, the farmer almost completely eliminates price risk. He in effect received at harvesttime the same price he would have been paid if the corn had been available the day it was seeded. The only factor in the pricing formula which was not established was the basis relationship of the cash corn to the futures contract.

It is important to note that the basic price-determining factor, which is the value of the December future, can be hedged. The cash basis cannot be hedged. In theory and practice in a delivery market, the cash value of the corn and the value of the December future will come together or converge and be of equal value before the expiration of the December corn future. The convergence of cash and futures values in a delivery month is a basic fundamental in all futures markets.

Understanding Basis

An understanding and familiarity with “basis” is extremely important to the success of a hedging operation. Usually the basis is cheapest (lowest) relative to the futures when supplies are most abundant. This usually coincides with the harvest period. As harvest marketing pressure diminishes, the basis gradually improves or appreciates relative to the future contract.

Transportation costs and interest rates are also important factors in developing a basis relationship to the futures contract. Any person working with commodities should become intimately familiar with the basis pattern of various geographical areas. The basis will also be influenced by the many factors making up the supply/demand equation. Interterritorial market relationships are quite predictable, for grain, like water, will flow to the most attractive market, and any disparities between markets are promptly corrected and market values quickly resume historical relationships.

To avoid any possible misunderstanding, it should be clearly understood that futures markets do not provide complete or total price protection against cash inventories. Price relationship, or basis, is simply the difference between the cash price at any geographical point and the futures market price. To illustrate: if the December corn future is trading at \$2.50 per bushel, cash No. 2 yellow corn (the basic delivery grade) may be trading on November 15 in Chicago, preceding the December, at 3¢ under the December future value, or \$2.47.

In the soybean complex, we have “product futures”—futures in soybean oil and soybean meal as well as in soybeans themselves. From a 60-pound bushel of soybeans, a processor will produce approximately 48 pounds of meal and 11 pounds of oil. The missing pound is processing loss. Because of the existence of product futures, the soybean processor is offered several hedging alternatives at any given time. It may be interesting to examine several of these possible marketing operations.

Market Flexibility

The most common and orthodox hedging operation consists of the purchase of cash beans which will eventually be processed with corresponding offsetting sales of bean futures. When the eventual sale of the cash products (soybean meal and oil) is consummated, the “short” soybean futures are purchased (bought back) and the hedge is, in the language of the trade, unwound.

The converse of this elementary hedge is interesting to observe, for it illustrates the market flexibility which a futures contract market offers. As an example, in January 1977, we at Central Soya sold soybean meal and oil products for delivery in October, November, and December 1977. The first soybean for the 1977 crop will not be planted until May or June. In this market operation, we are selling the cash products that will eventually be produced from our cash bean purchases to be made next fall by buying the new crop soybean futures.

During the 1977 soybean harvest, we hope to purchase cash beans and, as we do so, we will simultaneously sell the new crop "long" futures which were the temporary substitutes acquired in January 1977. This operation will have "washed out" our "long" bean futures position, and our market position then will be that of owning cash beans with offsetting sales of cash products that were made eight months previously. The existence of the soybean futures, or product futures, has permitted us to do business which might not otherwise have been possible because of the high risk of price exposures accompanying the sale of the products.

Without the protection offered by the futures market in such a transaction, the only other means for protecting such a price risk would be to introduce an inordinately large margin of profit to compensate for the unknown degree of risk. It is possible that even the large margin would not adequately protect the price exposure. Also, it would be a reasonable assumption that such a profit margin would make the transaction at that particular time so unattractive to the buyer that the incentive for the buyer to purchase would be destroyed.

"Putting on the Crush"

Another interesting variation of the above example is a market exercise termed "putting on the crush." In the soybean processing business, as in the meat industry, a high level of plant operation is desirable because of its impact on reducing unit costs. The industry therefore makes a concentrated effort to capitalize on marketing opportunities to establish a program which will achieve a high level of plant operation. Soybean processors have an opportunity, by utilizing soybeans, soybean meal, and soybean oil futures, to establish or lock in processing margins. This is accomplished by buying soybean futures (1 contract = 5,000 bushels) and selling proper amounts of soybean meal (1 contract = 100 tons) and soybean oil (1 contract = 60,000 pounds) futures as follows:

March soybeans: \$7.10 per bu.
March soybean oil: \$.22 per lb.
March soybean meal: \$210.00 per ton

Yield from 60 lbs. bushels of soybeans equals:
11 lbs. of oil
48 lbs. of meal (48 lbs. = 2.4% of 1 ton)

Yield from 100,000 bushels of soybeans equals:
18.3 contracts of oil
24.0 contracts of meal

With the above facts, the following margin is calculated:

11 lbs. of oil × \$.22	\$2.42 per bushel
48 lbs. of meal (.024 × \$210)	5.04 per bushel
Total product value	<u>\$7.46 per bushel</u>
Less March soybeans	7.10 per bushel
Gross margin	<u>\$.36 per bushel</u>

By using the futures markets, a processor is able to eliminate the flat price risk of three price-volatile commodities and concentrate on correctly anticipating basis changes of each of the three commodities. A processor is able to maximize margin opportunities by utilizing any mix of the six markets, both cash and futures, of soybeans, soybean meal, and soybean oil.

Total product demand as a percent of total crushing or processing capacity is one factor affecting processing margins. By correctly anticipating periods of relatively slow product demand, a processor can establish a board or futures margin and guarantee processing time in the future. For example:

During the fall of 1976, a processor can make assumptions on the basis of all three commodities in March, 1977.

- (1) At Decatur, Illinois, he anticipates that the FOB value of oil is board level or equal to March futures.
- (2) At Decatur, the value of meal will average \$2 per ton under March futures.
- (3) He will be able to buy soybeans delivered to his plant at 5¢ under March futures.

The processor buys beans and sells oil and meal until he is long 1 million March soybean futures and short 183 March oil futures and short 240 March meal futures. This can be accomplished in one or two days. The processor has insured a 50,000 bushel-per-day plant of twenty days of capacity with the margin shown in the following example:

March soybean oil	\$ 0.22 per lb.		
Basis	0		
	<u>\$ 0.22 per lb. × 11</u>	=	\$2.42/bu.
March soybean meal	\$210.00 per ton		
Basis	<u>- 2.00 per ton</u>		
	\$208.00 per ton × 0.024	=	4.99/bu.
March soybeans	\$ 7.10 per bu.		
Basis	<u>- .05 per bu.</u>		
	\$ 7.05 per bu.	=	7.05/bu.
	Gross margin	=	\$.36/bu.

Having put on the crush, it then becomes a matter of liquidating futures positions as cash commodities are traded.

At some time in the future, the processor will start to buy beans for arrival at his plant in March. As cash beans are purchased, he will liquidate his long March beans futures. He now is long cash beans versus short March soybean meal and oil futures. The flat price of the cash beans purchased is of little concern. As long as the processor is able to buy beans 5¢ below March futures or less, the initial margin established is protected.

As soybeans are processed, the objective of the processor is to sell the products for the same amount or better than his initial basis assumptions. As he sells

cash soybean meal, he will buy back his short March soybean meal futures. Oil sales are hedged the same way.

Many times, in actual practice, the processor will have an opportunity to contract with a feed manufacturer for the sale of soybean meal months in advance of production. The amount scheduled for shipment during March (in our example) is hedged by buying back the short March soybean meal futures. The crush hedge, prior to the purchase of cash beans, would then consist of long March soybean futures versus short March soybean oil futures and short a cash sale of meal. Again, the processor is little concerned with the price levels received when selling his production. He is concerned with the price relationship or basis to the futures markets.

“Reverse Crush”

To further illustrate the flexibility of a futures market and its economic performance, the reverse can also happen. The industry on occasion puts on what is termed “reverse crush.” This operation is conducted when the processor feels that the board conversion is abnormally narrow and not justified by his appraisal and analysis of the existing market facts.

In this operation, the products are purchased and corresponding amounts of beans are sold. If the processor has been correct in his evaluation of the market facts, this abnormally narrow conversion will tend to disappear or correct itself, and the product spread will resume a more economically sound relationship of value consonant with market realities. This is a fine example of the built-in, self-correcting, self-disciplining process of a free competitive market. When an acceptable correction (restoration of margin) is achieved, the processor will unwind the reverse crush by selling the long product futures and by buying the short bean futures.

The previous example illustrates the quality and character of a futures market as an instrument of price and spread correction. This is a good illustration of the sensitivity and flexibility of a viable futures market. If margins are too wide, the price-making forces quickly move to correct the abnormality; if they become too narrow, counter forces are triggered to bring them back into a more normal relationship.

Spreading Operations

The grain industry, as well as the soybean processing industry, frequently uses the futures market for an operation referred to as “spreading.” There are many forms and refinements of spreading—some are intricate and highly sophisticated. Let us examine one of the more easily understandable spreading operations.

At any given time, there is trading on the board futures for at least the coming twelve months. For example, in January we have trading futures for March, May, July, September, and December deliveries. The heavy corn harvest usually takes place in October, November, and early December. As of January 1977, the trading corn futures are for March, May, July, September, and December. As the corn crop develops and matures, relationships between these various futures reflect the developing total supply/demand complex. Under circumstances of a reasonable balance between estimated production and anticipated demand, the relationship between these delivery months will reflect what is termed a carrying charge. Under surplus conditions, a carrying

charge may be compared to warehousing or storage charges between one delivery month and the next.

A number of factors influence carrying charge relationships, but they tend to approximate a warehousing charge of 1/10¢ per bushel per day, or 3¢ per bushel per month, plus the cost of financing the inventory. As an example, with corn about \$2.50 per bushel and interest on money at 6¼% per annum, monthly interest cost would equal about 1.3¢ per bushel. The carrying charges would total 4.3¢ per bushel per month (3¢ + 1.3¢). Therefore, under full carrying charges, the difference between December corn (deliverable the first day of December) and March corn (deliverable the first day of March) should equal 4.3¢ × 3 months, or 12.9¢ per bushel, for the period.

Other factors—such as anticipated selling behavior by the producer; quality of the corn; interest rates; the anticipated price of the cash product to the futures and available supply of warehousing capacity—all are introduced into the development of carrying charges between the various futures. If the buyer of cash corn during the harvest marketing period feels the December future is too high compared to the more deferred futures (sometimes referred to as forward futures), his hedges will be placed in the December (the nearby). If his evaluation is correct, the December will eventually lose or depreciate in price compared to the March or other deferred futures.

When the corn merchant feels that the price relationships have reached a point which more accurately represents the true economic and market facts of life, he will spread by buying the short December futures which were his current hedge, and selling the more deferred. His product is, of course, hedged at all times, but the corn is now hedged in the March futures instead of the December future. The merchant may repeat this operation during the year as the various delivery months mature until he sells his cash corn, thereby generating profits to cover his warehousing and financing costs. This is described in the trade as “rolling the hedge.”

Theoretically, in a period of heavy surplus or when the supply side of the price equation is accentuated, the current contract price should, on the first day of delivery, be the sum of the storage charge plus interest and insurance costs below the price of the next contract month. In practice, this phenomenon is the exception rather than the rule, for the owner of the inventory is usually willing to buy back the nearby and sell the next delivery month to retain ownership of his inventory. He will thereby keep control of his elevator storage space rather than permit it to fall into the control of some third party who could occupy the storage space indefinitely, possibly to the elevator owner's disadvantage.

One might question a commentary on carrying charges in a discussion of hedging. When one owns grain storage space, this proprietorship carries with it a risk of utilization and level of profitability. By assuring warehousing income through spreading operations of the various futures, the warehouseman establishes profitability on a temporary basis until actual cash grain has been purchased and physically deposited in the elevator. This spreading operation is, therefore, hedging a risk, although the risk differs considerably in character from the risk assumed by the farmer when he plants

his land in the spring. This use provides another example of the versatile economic benefits to be derived through the use of futures markets.

Broiler Hedging

Growers or producers of animals and poultry can utilize futures markets to protect margins in the same manner as the soybean processors. Most costs of producing eggs, broilers, or red meats are fairly constant and predictable with two exceptions. The price of protein concentrates, consisting of a high percent of soybean meal, and feed grains can be volatile.

Since 1973 an annual price variance of \$50 per ton of soybean meal and 50¢ per bushel of corn has not been unusual. A combined increase of \$50 per ton of soybean meal and 50¢ per bushel of corn increases the cost of production of iced broilers approximately 4¢ per pound—a cost increase greater than the average profit margin (½¢ to 1½¢ per pound) in the broiler industry. Within the broiler industry are firms capable of producing 2 million broilers per week. A dressed broiler weighs approximately 2.5 pounds. An increase in costs of 4¢ per pound in feed ingredient cost multiplied by 2 million broilers multiplied by 2.5 pounds per broiler is an increase in costs of \$200,000 per week.

The price of ice-packed broilers is subject to extreme volatility for two basic reasons: the commodity is perishable and the supply is determined approximately nine months in advance. Ice-packed broilers must be consumed within a few days of processing. If demand in a given week falls short of that week's production, the processors must lower their price to a point that stimulates sufficient additional demand. In a perishable commodity, consumption must equal production within a very brief time span. In addition, the level of production for any period is determined about nine months earlier when pullets are placed on feed about six months prior to becoming laying hens. The eggs are then placed in incubators for about three weeks. The baby chicks will reach slaughter live weight of 3½ to 4 pounds in about seven weeks.

How a Broiler Producer Calculates Gross Margin

December soybean meal futures	\$200.00
Normal Georgia soybean meal basis	+15.00
Cost of soybean meal	\$215.00/ton
December corn futures	\$ 2.70
Normal Georgia corn basis	+ .05
Cost of corn	\$ 2.75/bu.
Soybean meal: \$215.00/ton X conversion factor	9.50¢/lb. broiler
Corn: \$2.75/bu. X conversion factor	8.25¢/lb. broiler
Costs other than broiler feed (labor, antibiotics, vitamins)	20.00¢/lb. broiler
Iced broiler freight cost to Chicago	1.65¢/lb. broiler
Total cost	39.40¢/lb. broiler/Chicago
December iced broiler futures	41.00¢/lb.
Less production cost	-39.40¢/lb.
Gross margin	1.60¢/lb.

The accompanying example illustrates how a Georgia broiler producer can calculate forward or future margin opportunities based on December futures. All production costs, including feed costs other than soybean meal and corn,

are considered constant. Because of climate (temperature) changes, this constant is somewhat seasonal. However, production costs can be predicted with considerable accuracy.

To establish or lock in the margin, the producer buys equivalent amounts of corn and soybean meal futures and sells iced-broiler futures. For every six contracts of iced broilers (30,000 pounds each) sold, one contract of soybean meal (100 tons) and one contract of corn (5,000 bushels each) must be purchased.

The hedge is taken off in the same way a soybean crush hedge is liquidated. As the producer buys cash corn, he sells his long corn futures. As he buys protein concentrate, he likewise sells his long soybean meal futures. The producer, at that point, owns all his feed requirements and is short the iced-broiler futures. As he markets the broilers, he buys back his short iced-broiler futures if the cash value or market is equal to or higher than the futures market. If the futures market exceeds the cash market, the producer can liquidate his short futures position by delivery. As mentioned earlier, most futures contracts are liquidated by an offsetting trade prior to expiration. However, the ability to physically deliver the product against a future short is important in ensuring that the futures market properly relates to the cash market.

Benefits of Hedging

Management's views on risk are extremely important in determining how and to what extent futures are used. In the writer's opinion, long-range, sound corporate objectives are best served when risk is minimized. This is particularly true when risk can be minimized at low cost and without significant economic penalty. A company heavily committed to basic agricultural commodities would certainly be in this position; basic commodity inventories are usually of a substantial amount and representative of high dollar investment often subject to a high degree of price volatility.

The principal focus of management in an agribusiness operation should be directed toward achieving a high level of proficiency in the acquisition of raw inventory stocks or cash grain position; to achieve the lowest combination of costs in transportation; to conduct the mechanical operation of plants at the most efficient levels consistent with sound operating principles and standards; to produce the highest quality product possible within the scope of all the surrounding economic considerations; and, finally, to market these products in the most intelligent, orderly, and economic manner possible.

Therefore, this author's philosophy on risk is quite simple. It is not necessary to invest in high priced plants and physical inventory in order to speculate. There are easier and less expensive ways. Furthermore, the stockholders of a publicly held company presumably do not invest in a company with the idea management is to speculate with their money. If these investors wanted to speculate, they would, undoubtedly, prefer to make their own speculative decisions. A hedger is, therefore, happy to delegate speculative risk to the professional speculators as they fulfill their vital role of "making the markets" by expressing their opinions of value in the marketplace.

By using the futures market to shift and minimize risk, management is removed from the constant nerve-wracking distractions which are the companions of a speculative market position, and can concentrate on

management decisions directed to maximizing profits. With a risk hedged, management is in a far better position to concentrate on those things over which it does have more control, such as capturing a larger share of the market, changing the path of future corporate growth or introducing new products. Finally, management is freed from speculative positions which too often become subject to emotions rather than subject to a constant process of penetrating and pragmatic reevaluation of market realities.

Variations on Full Hedging

This should not be interpreted to mean that a fully hedged position is the only acceptable or successful method for operating a commodity-oriented company. Numerous highly successful companies operate on less than a totally hedged basis. Obviously, during periods of price appreciation, corporate profit performance is considerably better for a company that is *not* hedged than for a company that is.

Another interesting problem not usually anticipated can develop under such circumstances. If a competitor is not hedged and is successfully participating in a speculative position with positive results, the comparative profit record of a hedged company may appear unattractive to the outside investor. The response to such a comparison is that average profits on a hedged basis, when measured in five-year terms, will prove to be equal to or better than profits on an unhedged basis; they will surely be more consistent. Logic, therefore, seems to indicate that the hedged company would be more attractive to the public investor who is seeking long-term appreciation and sound growth investment.

Variations from a fully hedged position always exist and may, for good reasons, appeal to some managements. Briefly, these variations include the following:

Hedge only a portion of one's inventory or risk exposure, leaving the unhedged portion open to speculative price moves.

Hedge on a situation basis, that is, hedge only when anticipated price movements are expected to have a negative impact on the inventory position. This obviously must be ranked as a high risk approach. It makes a fundamental assumption that one possesses the ability to foretell market developments. If this were true, no risk would exist in the first place.

Hedge only what are considered to be the highest risk segments (areas of most violent price volatility) of the operation where the greatest market exposure is anticipated, leaving open or unhedged what are considered the lower risk areas. The only difference between this and the situation basis is the introduction of a ranking factor to the degree of risk.

A substantial and dependable line of bank credit is imperative to conducting a sizable commodity-oriented business. A rigidly enforced policy of being fully hedged is meaningful to bankers as they evaluate risks attendant to loans. Bankers' confidence in a policy providing for the use of futures markets to minimize risk can be extremely important to securing adequate credit resources.

In the writer's opinion, futures markets will continue to grow in volume and in number of new contracts. The economic concept is sound, efficient, and satisfies an economic need. This opinion is based upon the belief that free markets will, in the long run, clearly demonstrate that they are the most

effective means of encouraging production (when required) and rationing supplies (in periods of shortage). The interests of both producers and consumers are therefore best served by the perpetuation of viable competitive markets.

Furthermore, we have moved into a period of permanently higher price levels directly related to increased fixed asset and higher resource input costs. Finally, it appears certain that the expanding food requirements of the world will be accompanied by expansion in world trade of grain. This will require increased use of futures markets for hedging purposes.

To obtain the required adjustments referred to previously, prices must be permitted to move—sometimes dramatically. At times these price adjustments will be painful to some sector of the economy. However, the problem will be most promptly corrected. Under such circumstances in a free market, risk will always be present to a greater or lesser degree depending on the situation. Properly executed and employed hedging, one of the most valuable tools available to business, can significantly reduce or minimize such risks.

