Use of Futures Contracts in Hedging

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In commodity marketing, to "hedge" is to minimize financial loss from an adverse change in commodity prices. Hedging is a form of price insurance, insurance against a drastic price change, a price drop from the standpoint of the farm producer-seller of the commodity or a price rise from the standpoint of the farm feeder-buyer of the same commodity. Any farm producer, merchandiser, manufacturer processor or exporter, who own an agricultural commodity is faced with speculative risk. The value of the commodity being produced, stored, handled or processed will change day to day. These same risks apply to those who need to purchase the commodity to use in their business, such as processors, livestock feeders or exporters. Hedging began and developed in response to the economic need-risk reduction-and now plays an important role in the marketing of agricultural food and fiber.

One reason for the change in prices is the seasonal nature of agricultural production. Wheat, for example, is harvested within a few months period in the U.S. yet its use is spread rather evenly over the entire year. Even when U.S. wheat is harvested and stored, wheat is being harvested in other parts of the world. Reports on its production and use change continually. Price responds to these reports, moving up when supplies are short or demand is heavy, and down when supplies are plentiful or demand is light.

Someone must produce, own, store and care for the grain from the time of seeding the fields through the actual sale of the final product to the ultimate

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consumer, a household, a farmer feeder, etc. Grain growers and owners therefore are in a precarious position. The value of their inventory changes with price movements. If grain production was instantaneous and movement from the field to consumer immediate, only a minimum risk would be incurred. Since it requires five to ten months to produce a crop of wheat depending upon the type grown, and the grain must be stored and spaced for distribution, the grower and owner face the possibility of adverse price change.

Various devices are used to lessen the possibility of financial loss from a price change. Forward sales or forward contracting has been used over the years by fruit and vegetable producers, sugar beet growers, cattle feeders, potato growers and other farm producers. Forward contracting has been associated with the production of a perishable product for a given processor or marketing firm. The futures market also offers an opportunity for producers of many agricultural commodities, to shift much of the risk of price changes to speculators, who specialize in assuming this responsibility.

FORWARD CONTRACTING VS FUTURES CONTRACTS

A contract entered into with a processor or marketing firm at the beginning of a cycle or at any time prior to the actual delivery of the commodity can be considered as forward selling. A specified product of an agreed upon quality is to be delivered under specified conditions at a specified place and time. Delivery is expected from the production of the seller to meet the needs of the buyer. The intent of the contract is delivery of the product to meet a processing or sales schedule of the buyer. The seller is assured of a market for his commodity at a specified price if other qualifications in the contract are met. Likewise the buyer is protected by the contract through assurance of a supply of the needed commodity at a predetermined price. Both the seller and buyer stand to gain from the contract but either may lose depending upon the supply of the product available at the time of delivery. This is the type of contract most farm producers are familiar with, they have been available in some commodity areas for many years.

A futures contract is a completely different type of sales instrument. Futures contracts are paper transactions. Contracts themselves are bought and sold with the prices determined at public auction-in a commodity exchange. Few people who trade in the futures intend to deliver or receive the commodity named in the contract. In actual practice the futures contracts are canceled by offsetting transactions. For example, a cattle-feeder who has hedged a lot of cattle by selling a futures contract early in the fattening period, liquidates the hedge at the time he sells his cattle by buying a futures contract in the same quantity and delivery month as the original futures contract, thereby closing his hedge.

Forward contracting presents some problems not found in futures contract trading. Forward sales contracts are not always available, the terms of the available contracts are sometimes unacceptable, and defaults on a contract can only be handled by court action. By contrast futures contracts are readily available, easily disposed of and the commodity exchange has provisions established which handles nonperformance on the contracts.

Hedging from an agricultural producer's viewpoint can be defined as offsetting a potential sale of a commodity being produced or stored by the sale of a futures contract. Hedging from the viewpoint of a livestock producer may be offsetting the potential purchase of feed grains or protein supplements with a purchase of futures contract.

Hedging insures an approximate price for the commodity established at the time the hedge is entered into. The hedger must realize that the placing of a hedge insures against major losses from a price drop but it likewise prevents a major gain from a price rise. A loss in the cash market is offset by a gain in the futures market. Conversely a gain in the cash market will be offset by a loss in the futures market.

The hedge works as follows in price insurance. A price drop for the commodity in the cash market will result in a loss to the producer on the product being produced or stored. However, if the cash market price falls, the futures contract price will likely be reduced by a similar amount. The price of the purchased contract to offset the original sale will be lower also and the profit from hedging is used to offset the loss in the falling cash market. A price rise for a commodity in the cash market would be accompanied by a similar rise in the futures price. A gain made by selling the commodity at the higher price would be offset by the loss incurred from buying back the futures contract at a price above that at which the contract was sold.

Complete protection against loss from price changes through hedging is possible only in the unlikely event that the cash price and futures price are parallel during the life of the hedge; ie that the spread between the cash and futures price is the same at the time the hedge is entered into and when lifted. In reality a hedger confronts a market in constant change, with minor variations between the two prices.

To hedge successfully, a producer must study the relationship between local cash and futures prices and understand the timing of movements of the spread between the two prices. A charting of this spread called "basis" is a useful tool in the hedging operation. The hedger also needs to build a close working relationship with his broker so that each understands the goal and

and operation of the other.

A commodity producer, who wishes to hedge, opens an account with a broker dealing in commodity futures. For a fee set by the Commodity Exchange, a producer may trade on the futures market through a member who is represented by local brokers. The broker will require a deposit, called "margin" on each futures contract to guarantee performance on the contract. The broker will call for additional margin if the futures price moves against the buyer or seller to maintain the minimum margin ie. if a futures contract has been sold and the price goes up-against the seller-additional margin, equal to the price rise times the quantity of the contract, will be required. If the minimum margin is not maintained the broker will "lift" the hedge by entering a counter futures transaction automatically for the buyer or seller and pay the balance of the margin deposit to the hedger.

The "speculator", who many unknowledgeable in the commodity market consider a shyster, is essential to the successful operation of a commodity futures market. Hoping to profit from price fluctuations in the futures market he voluntarily accepts the risks associated with price changes. He gains if he sells a contract for more than he paid for it or buys a contract back for less than his selling price. Likewise he loses if he sells for less than he paid or if he buys back at a higher price than he sold.

Unlike the gambler, who creates a risk not normally present, the speculator assumes a risk already existing that someone must assume, that is the risk of ownership of a commodity. He enables the hedger to protect his production margin through the sale of a futures contract. Without the speculator, the hedger would have to find another hedger who wished to take the opposite position from himself and the likehood of this would be rare at any given time. The speculator stands prepared to assume the risk hoping to gain a profit therefrom.

HEDGING IDAHO POTATOES

An Idaho potato grower, who wished to hedge his total crop of potatoes, would sell potato (Idaho Russett) futures contract approximately equal to the estimated production of his crop and for the delivery month nearest his anticipated sales date. The sale would be made through a broker who trades on the Chicago Mercantile Exchange. To close out or "lift" the hedge, the producer would buy back the equivalent number of contracts in the same delivery month as the future contracts sold, at the time he marketed his potatoes. The hedge could be placed at any time the producer wished during the production and storage cycle as trading in a given delivery month since trading may begin 10 to 12 months prior to the delivery month. Delivery months for futures contracts in Idaho potatoes are November, January, March, April, and May.