

Section 5

Soybean Processors' Use of Futures Markets

Trading in Fats and Oils

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It is a genuine pleasure to be given the opportunity to appear before this group today. It is also of mutual interest because our company has long recognized not only the desirability but the necessity of joint participation with educators on mutual problems. . . .

The subject which has been assigned to me, "Trading in Fats and Oils," covers a very broad field. Supplies of food fats in the year beginning October 1, 1953, according to the federal Department of Agriculture, are expected to be about the same as this past year; with regard to stocks, there is an abundant supply of fat and oil. Frankly, most of you, I am sure, are familiar with the various excellent reports such as the United States Department of Agriculture "Fats and Oils Situation," and I see little use here to discuss detailed data and statistical information. The government agency has recently reported that three factors—supply of fats and oils used in food (excluding butter and lard), supply of lard, and the disposal income—accounted for 92% of the variation in prices of edible fats and oils, excluding butter and lard, during 1922-42 and 1947-51. However, I assume that the interest of this group is primarily directed toward an understanding of the value and the functions of a market of the type which the Board of Trade provides in the oil seeds and in the fats and oils field. I shall confine my discussion to soybeans, which is an area of interest in which I have some knowledge and a great deal of curiosity. I shall discuss the functions of the Chicago futures market from the point of view of a processor of soybeans. Swift has made constant use of the Chicago Board of Trade's facilities.

The Processor's Place in the Picture

The job of a soybean processor is, in concept, quite simple. He buys beans, taking care to get them in locations that minimize hauling costs. Then he sells the products, the oil and the meal, in those markets that offer him the highest dollar. He runs those beans through a plant which separates the oil and the meal. There he must exercise control of technology to be sure he gets the most

in value of product per bushel of beans, and of efficiency in handling, and to be certain that he moves a maximum of volume at the lowest possible unit cost. As a processor, he hopes to earn a profit on his fixed investment in plant and in current operating capital from the efficient performances of those functions.

Unfortunately, however, the job is not in fact that simple. Soybeans are not purchased as they are crushed. The product cannot always be sold at satisfactory margins over bean cost at the time the raw commodity has been purchased. There is a risk-bearing function to be performed, a job of bridging the gap between values as they exist at the time that beans flow into the market and as they eventually materialize as the season progresses; there is a job of forecasting the future or of persuading someone else to do so in terms of his willingness to risk his own money on the accuracy of his estimate, and that is the supreme test of his conviction.

It may be well at this point to recite some of the particular developments and characteristics of the soybean trade that make the risk-bearing function appear so important to us.

1. We have been a rapidly growing industry, hence with a constantly changing supply and demand pattern. Eighteen years ago the industry crushed between 9 and 10 million bushels. Last year, it crushed 244 million bushels or 25 times the volume of 18 years ago.
2. In recent years there has been a radical change in technology—a shift from mechanical extraction to chemical (solvent) extraction. Because of increased oil yields from the solvent extraction process and because of the wide swings in oil prices, processing advantages to the extent of from 15¢ to 40¢ per bushel in favor of the solvent processor have at times developed, and the resultant pressures on the bean market have been most unfortunate from the point of view of those who were not equipped with the solvent process. This technological shift is still going on, although low oil prices take the bloom off the competitive advantages that were in it—but it has been a rapid shift, requiring great capital outlay for the industry. As I recall the figures, something less than 25% of the industry used the solvent method 5 or 6 years ago. Now something over 90% of the soybeans crushed go through the solvent process.
3. The prices of soybeans and soybean products are almost wholly dependent upon other commodities. The oil is an edible one closely tied to cottonseed oil and to lard and has very little specific demand of its own. The meal is an alternative in livestock feeds to cottonseed meal, to linseed meal, to the animal proteins, and in a broader sense to corn. Hence, the supply of soybeans alone offers no reliable guidance to price outlook.
4. The industry was built upon and keyed to the concept of continuous operation and to the concept of a zero carry-over of old crop beans into the new crop year.
5. We have been peculiarly subject to changes in export demand for our raw material. Soybean exports in recent years have been as high as 9 to 10% of the crop, and as low as 2%, with 27,000,000 bushels exported from the 1952 crop.
6. There are some seasonal factors that also complicate the problem. The soybean harvest, which a few years ago was a 30-day process, under favorable weather may now occur in 10 days. From 60 to 70% of the soybean crop has in the past moved from the producer into the hands of the ultimate processor in a

relatively short space of time. No such rapidity of sale of the product on firm contract to the ultimate user is possible. Consequently, the processor must either elect to carry the risk, or pass up the beans, thereby incurring the risk of not being able to get enough to keep his plant in operation, or else manage to shift his burden to other shoulders through the sale of the beans or of the product on the futures market.

Now it so happens that for many years the willingness of the trade to carry the risk, combined with the inflationary tendencies of the times, resulted in a fairly dependable seasonal appreciation in bean prices. A few years ago, beans purchased at harvesttime were good property, and the price appreciation on them more than compensated for the cost of carrying and, at the same time, permitted a somewhat orderly merchandising of products. But those were the good old days. Recent history leads to considerable doubt that this situation will continue. So the risk-bearing function becomes even more important.

A Broad, Fluid Futures Market Needed

What, then, does the processor need in the way of a risk-bearers' market? He needs a market on which he can sell the risk inherent in carrying between one-half to two-thirds of a year's supply of raw material. He needs a market that is fluid enough that it will follow closely the value of the oil and meal produced from the beans. This is a "must" for sound operations. He needs a market broad enough that he can buy and sell either the beans or the products made from them and ultimately lift his hedge with satisfactory financial results. He needs a market that is sufficiently specific as to locational factors and as to quality factors so that he can deal on it without being penalized by having to take delivery on soybeans that are discounted in value because of low oil content or out-of-position origin. He needs a market that is sufficiently broad and fluid that the sudden pull of export demand for beans (for example) will not for long, distort the relationship of bean prices to product prices.

I hesitate to try to appraise the adequacy of present markets, of which the Chicago Board is one. Let me simply point out that we are a growing industry and therefore have no reason to have reached perfection.

Sufficient to say that the Chicago futures market for beans has expanded rapidly in recent years. The maximum open interest in the futures prior to World War II was 12,700,000 bushels. Soybean futures trading was temporarily suspended on February 19, 1943, and resumed on July 7, 1947. During the 1948 crop year, the open commitment exceeded 27,000,000 bushels, and the 1952 crop open interest reached a peak of nearly 76,000,000 bushels. This figure suggests that a respectable portion of the trade's holdings of beans could have been hedged—though there is no way of knowing the extent to which the contracts may have been of a purely speculative character.

The oil and meal markets here are relatively much narrower than in the soybeans themselves, but are apparently growing.

Many Problems Yet Unsolved

It should be clear that there are problems related to the shifting of risk through the futures market for which no solutions have been developed—not because of indifference to the problems but because of the difficulties involved.

Soybeans, as you know, are sold on grade. You also are probably aware that those grades do not reflect oil and meal composition closely. With meal selling

at 3 to 3½ cents per pound and oil three to four times as high, it makes a lot of difference in bean values whether the beans yield 11 pounds or only 9½ pounds of oil per bushel. Both yields are deliverable on the same contract as No. 2 beans. Now it is one thing to sell a price risk, and something else again to expect the risk-bearer to take into account the wide discounts which may arise from quality differences in beans that might be delivered to him on a futures contract. To date, the laboratories have not perfected an accurate method quick enough to determine the oil content of soybeans as they are delivered to the processing plant. Hence, contracts cannot feasibly be written to reflect such variation.

Similarly, the concept of transit values complicates the picture. Beans may vary substantially in value depending upon their points of origin and their mode of transportation, because of the institution of milling in-transit privileges. So the risk-taker may find himself dealing in “out of position” beans rather than simply discounting future uncertainty.

The question of delivery points—multiple or single—is a knotty one, dealing as it does with changes in competitive advantage of individual mills. From a hedger’s viewpoint, he would obviously prefer that the contract specify his own mill as a delivery point and exclude his competitors’ mills. Failing that, the more convenient to his mill the delivery point is, the better. But equally obvious, the wider spread and more frequent the delivery points are, from the point of view of the risk-taker, the greater the factor of locational value becomes. I don’t know the answer to the problem and certainly have no solution to propose.

Another problem is the noncorrespondence of price behavior between soybean futures and soybean product futures. At times, from the limited viewpoint of the processor, demand for beans and, hence, bean prices, seem to lose all rational relationship to product values. That may be attributable to the relative narrowness of the product futures market. It may be attributable to the absence of a specific speculative interest in bean-product spreads. It may simply be attributable to a developing and unanticipated export demand for beans that makes itself felt in the bean market with no corresponding effect on product values. But whatever the cause, the processor is squeezed thereby whenever he has hedged his raw material.

From time to time, soybeans on the Chicago Board have gotten out of relationship with the actual value of soybeans, which is the gross value of soybean oil and meal. These markets may get out of kilter, so to speak, from time to time, but the price structure should always readjust so that for the long pull the price of soybeans is in relationship with the oil and meal values.

No discussion of this type would be complete without some mention of the government efforts to assume some part of the risk-bearer’s job. One of the major uncertainties in years like this one is the uncertainty arising from the support program. We don’t know how many beans there are in the first place. And when the marketings fail to measure up to expectations, there is a considerable doubt as to whether the farmers have withheld the beans or whether they simply aren’t there. If they are there, which is the usual assumption, certainly the aggressiveness of processors to acquire beans is

diminished. If they are not there, someone at the tail-end of the season comes up short of beans and the pressure on processing margins becomes terrific.

**Cure Could Be
Worse than the
Disease**

I would like to end this discussion with a generalization which seems to me worth making. One of the great contributors to the economic efficiency of this country has been its genius for organizing and operating broad, fluid markets for its commodities. Those markets, by and large, have become accurate reflectors of economic relationships and of future expectations. While such expectations may prove to be incorrect in any given instance, I submit to you that the record of the market, wherever it can make itself felt as an indicator of future values, compares relatively favorably with that of the professional forecasters. But it can perform that service only if left free to do so.

Consequently, I would urge that those who are convinced of the need to curtail and to limit the freedom of markets be exceedingly careful of what they propose to do. All too frequently, they may simply be destroying a valuable service to the economy. They may be eliminating in considerable degree the professional risk-bearer, and thereby forcing that responsibility back upon the unwilling shoulders of the industry or the farmers.

