Lard Prices Vs. Soybean Oil Futures

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Since there is no longer a futures trade in lard, the question is sometimes raised about seeking price protection in some affiliated futures contract. It is generally assumed that grain sorghum, for example, is hedged in corn futures, so the practice of hedging across commodity lines is not new. The purpose of this study was to explore the practicability of using soybean oil futures in a similar manner.

There is some substitution of lard for soybean oil, and vice versa, in shortening, margarine and certain other products, though not a large percentage. The amount of substitution revolves on ingredient limitations and price relationships, as would be expected, with these relationships subject to all the normal influences of supply and demand, government programs, local conditions, etc. Therefore, a careful appraisal of these various influences should provide some indication of when lard can be hedged against soybean oil futures and when it should not.

In this study published quotations of loose lard at Chicago were compared with closing prices of soybean oil futures on the Chicago Board of Trade. Friday quotes were used with no accommodation for fluctuations during the week. This was done so as to remain objective in making comparisons thereby eliminating the temptation of using selective choices made after the fact in order to prove a point. For futures prices, the July contract was selected as being most representative of seasonal carrying charges available to compensate for storage costs, thus mostly avoiding the not infrequent "weather market" of August and the season-end concern of September. In the interest of consistency, no deviation was allowed in using other futures months though sometimes this would have been advisable. No attempt was made to examine years prior to marketing year 1961–62 since prior to that year there was less substitution between lard and soybean oil, and because beginning with that year, there have been a sufficient amount of variable influences to test the range of deviation.

Objective

The objective of this study was to determine the feasibility of using soybean oil futures to seek price-level protection on lard, while retaining the opportunity for securing profit on the cash basis difference. This is not hedging in the purest sense because lard cannot be delivered in satisfaction of soybean oil futures contracts. In some cases it may be possible, however, to actually price lard on a soybean oil basis just as cash oil would be priced, while in others it may not. This would depend on whether or not the party on the other side of the cash transaction also has a position in soybean oil futures.

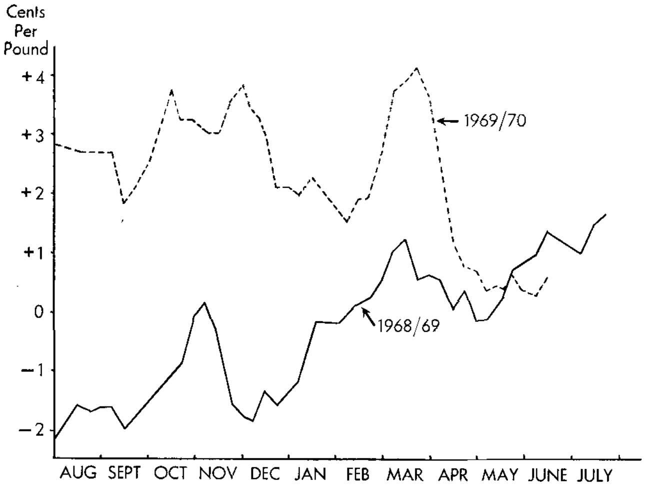

Fig. 1. Price Loose Lard Chicago vs. July SBO Futures.

Seasonal Variations

It was found that each year has sizeable changes in the price relationship between lard and July soybean oil futures, usually much larger than between cash soybean oil and soybean oil futures. Profitable pricing relative to futures in any commodity is dependent upon changes in the cash basis, but when these changes are of a magnitude such as shown in this study, price level protection while seeking a profit in basis changes becomes especially desirable.

Some years, however, are quite different from others as shown on the accompanying chart. These differences are explained by the variations in supply of and demand for lard as compared with soybean oil. Two important observations were noted in analyzing these differences: (a) The lard basis worked higher during the years when there were reasonable "carrying charge" increments in soybean oil futures out to July, accompanied by a trend toward lighter hog slaughter. (b) The lard basis worked lower during the years when there were narrow "carrying charge" increments (or even inverted prices) in soybean oil futures out to July, accompanied by a trend toward heavier hog slaughter.

Techniques

With these conditions it is possible to describe some typical trading techniques for the person with a stored lard inventory and for the user of lard who has limited storage capacity.

Lard in Storage. When the lard price early in the season is *below* July soybean oil, there are reasonable "carrying charges" between futures months, and the trend is toward lighter hog slaughter, it is advisable to store lard and sell July futures. A profitable improvement can be anticipated in the basis when later in the season lard is sold and futures bought back.

When lard price early in the season is *above* July soybean oil futures, it is profitable, of course, to sell lard promptly with no consideration of storing or hedging. Later in the season a hedging opportunity may develop.

Lard to Purchase. When lard price early in the season is *below* July soybean oil, there are reasonable "carrying charges" between futures months and the trend is toward lighter hog slaughter, it is advisable to book lard for future delivery up to nine or ten months if possible. July soybean oil futures would be sold with futures being bought back as cash lard is actually purchased or sooner if lard basis continues to weaken. This transaction assumes the basis will improve at a more rapid rate than the monthly storage increment charged when the lard was booked.

When lard price early in the season is *above* July soybean oil futures the lard user would buy cash lard only for immediate needs in anticipation of a weakening basis relationship later in the season. He, therefore, would buy July soybean oil futures as a hedge for future needs, since the basis should weaken, followed by sale of futures as cash lard is bought.

Price relationship patterns between cash lard and July soybean oil futures are not repetitious from year to year, but there are recognizable causes for this diversity under most conditions. The basis changes during a given season are greater than usual commercial storage charges for lard. It therefore is possible in most seasons to make profitable hedging decisions while gaining protection from adverse price level changes.