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ROLE OF FUTURES MARKETS AND HEDGING IN PAKISTAN'S EDIBLE OILS INDUSTRY

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INTRODUCTION

Pakistan's edible oil problem has been described and analyzed by previous speakers at today's seminar. They have summarized this problem in terms of high edible oil imports which have been growing at about a 20 percent annual rate. These imports now account for over 80 percent of annual consumption. This high rate of growth of imports has led to a high foreign exchange cost and to a heavy financial burden for the public sector.

A number of policy changes have been proposed in an effort to solve this edible oil problem. One of these proposed changes is that a futures market be established as a means to improve pricing efficiency and reduce cost in the Pakistan edible oil industry. The purpose of this paper is to discuss the basic concepts of a futures market and hedging as a means to accomplish these objectives.

A major source of risk for importers of edible oils is the high degree of price variability. Prices of edible oils on the world market fluctuate more widely than prices for most other primary commodities. Soybean oil futures as recently as 1982 traded on the Chicago Board of Trade for 16 to 18 cents per pound. These prices increased rapidly to over 30 cents a pound in late 1983 and reached a high of 41 cents a pound in May 1984. Prices recently have declined to slightly over 20 cents a pound. Such large changes in the price of soybean oil creates a large amount of price risk for importers. These data also suggest that a sound purchasing program could be used to stabilize the price of imported oils and lower its cost.

The importers can generally be placed in one of two categories reflecting the competitive environment in which they operate. In the first category, prices of products are established in a market system and price change reflects changes in supply and demand conditions. Products are normally sold and prices are established for delivery at sometime in the future. The second situation is a competitive environment in which product prices are fixed by government policy. This is the case of the Pakistan edible oils industry. When prices are controlled in this manner, a price increase in imported oils results in a direct reduction in processing margins because selling prices for the processed commodities are fixed. The importing agency must assume the risk of price change.

BUYING ALTERNATIVES FOR IMPORTED OILSEEDS

Importers have five basic alternatives available for imported oilseeds. Each one of these alternatives has several advantages and disadvantages.

1. Cash Market Purchases as Needed: Cash market purchases is the alternative most frequently used by importers. Purchases are made in the cash market by importers as the need arises. The main advantage

of this method is its simplicity. Another advantage is its attractiveness when prices are low or stable. The main disadvantage of this method is the risk of price increases that must be incurred. The GCP uses this alternative at the present time.

2. Cash Market Purchases with Storage: Another option is to purchase oilseeds with the intention to store for future use. Since purchases are stored for future use, supply is given and the risk of price increase is eliminated, because the oilseed is already purchased. The major disadvantage of this option has to do with the cost and availability of storage. Storage cost includes interest on the commodity, cost of storage facilities, insurance and quality maintenance. The problem of maintaining quality is particularly important in edible oil industry.

3. Cash Purchases for Deferred Delivery: This buying alternative has the same advantages as the cash market except that delivery is for a later time. The price risk is eliminated and quantity is assured. Storage costs in this option are normally at the seller's expense and are reflected in the forward contract price.

4. Hedging in Futures Market: The main advantage of this buying option is the ability to transfer price risk to the futures market. Another advantage of hedging includes increased flexibility and control over purchases. A third advantage is the ability to establish processing margins by guaranteeing a price for the

imported oil. A fourth advantage of hedging is that importers can reduce their inventory needs and save on financial costs. The fifth advantage is the opportunity to extend the purchasing period for several months into the future. The principal disadvantages have to do with the increased complexity of this alternative and the margin calls that may result from using hedging as a buying alternative.

5. Hedging in Options: Options trading is a new alternative that was initiated on the Chicago Board of Trade in late 1984. Options are currently traded on soybeans and grains but not on soybean oil.

PURPOSES OF FUTURES MARKET

A futures market has two basic purposes. One is to provide buyers and sellers the opportunity to establish prices today for commodities for delivery in the future. A futures price is an indication of the commodities value at the present time, given current supply and demand conditions, government policies and future expectations. A second purpose of a futures market is to provide an option for risk management through hedging.

The main participants of a futures market are the processors or users who want to own the commodities at the lowest possible price. Farmers as participants want to sell at the highest possible price. Merchants as buyers and sellers of commodities use futures to transfer the risks of ownership. The above three participants will use the futures market primarily as hedgers. Speculators assume risk of price change for the sole purpose of profit. They provide liquidity to the market.

HEDGING AND THE BASIS

Hedging is defined as making a substitute purchase or sale of a futures contract for a cash transaction to take place at a later time. Hedging can also be defined as taking an equal and opposite position in the cash and futures markets. Basis is the cash market price minus the futures market price of the commodity. The basis can be positive or negative. Basis is an important consideration in hedging. The basis is more predictable than either the cash price or the futures price because the cash and futures price tend to move up and down together. The principal components of the basis are transportation costs and carrying charges. The basis is typically weakest at harvest time and becomes stronger during the post-harvest season. The basis will normally strengthen in the post-harvest season at a rate approximately equal to the cost of storing the commodity. In the case of Pakistan the development of reliable basis information would be an important part of setting up a hedging program for imported edible oils.

PROCESSORS BUYING HEDGING

The main purpose of a processor buying hedging is to protect against price increases that could destroy processing margins. Processors can use a buying hedging to guarantee a price for their imported oils. Suppose that a processor knows he is going to need a certain quantity of soybean oil in April for his processing plant. He could place a hedge to guarantee himself a price for the oil he would need in April. He would do this by buying a May Soybean oil contract at 20 cents a pound ($440/MT). With an expected basis of 3 cents over the May contract his imported price in Pakistan would be 23 cents a pound or $507/MT. He would make this transaction in November. In April when the Soybean oil is needed he would sell the May Soybean oil contract at 26 cents a pound ($573/MT) and buy soybean oil in cash market at 29 cents a pound ($639/MT). As can be seen from this example, the market price increased from November when the hedge was placed until April when the hedge was lifted. However, the net price paid for oil remained at 23 cents a pound ($507/MT). This was the price established in November. The price remained at this level because the increase in the cash market price was offset by a gain in the futures market price, so that the net price did not change. In this example if the processor had not hedged he would have paid $639/MT for the Soybean oil rather than $507/MT. If market prices decline with a processor buying hedging, the gain from the cash market is offset by a loss in the futures market so that the net price paid for oils remains unchanged. This is how hedging can be used to guarantee a net price for imported oil.

PROCESSORS BUYING HEDGING WHEN BASIS STRENGTHEN

Not all of the risk of price change can be transferred to the futures market because the basis cannot be predicted with certainty.

If the actual basis is stronger than the expected basis, the processor will pay slightly more for his imported oil than what he expected to pay when he places a hedge. The additional amount that the imported oil will cost will equal the amount of the basis change. If the basis strengthens by 3 cents a pound, the net price paid for imported oil will be 3 cents more than expected. On the other hand, if the actual basis is weaker than the expected basis, the importer will pay less for the imported oil then he had originally expected. This is the main reason why basis information is so important to hedging. For the importer the timing of his transactions can make a difference in the terms of net price actually paid for the imported oil.

RULES FOR SUCCESSFUL HEDGING:

1. Know Why You are Hedging: It is important for the importer to understand the concepts of hedging and how it can be used to his advantage in the buying of imported oil.

2. Select a Knowledgeable Lender to Finance Your Hedges: In order to trade in the futures market, one must have access to a source of margin money. Margin money typically represents about 10 percent of the value of the futures contract. This margin money is used as a performance bond in the trading of futures contract. Importers can be faced with margin calls in the futures market when prices move against their position. For example if market prices go below the

price at which a hedger has purchased a futures contract, he will be faced with a margin call. He will have to put additional money into his trading account. It is important to have a lender to understand hedging and who will finance any margin calls that will be needed in a hedging program. In case of an importing country such as Pakistan, this would also require access to foreign exchange to meet any margin calls that may occur.

3. Select a Good Broker: It is important to select a broker who understands hedging and who understands his clients' needs so that the broker, client and lender can successfully cooperate in the hedging program.

4. Control Over Hedging Accont: The importer must control his hedging account with the broker because the importer is ultimately responsible for all transaction decisions in the futures market.

5. Starting Small Go Slow: One should not initiate a hedging program with a large position in the market. It is important to initiate with a small position in order to learn how to use the market to your advantage. Once this is accomplished the importer can easily increase the amount of hedging in his purchasing program.

6. Keep Good Trade Records: The importer and the broker must maintain good records of the transactions in the market to avoid misunderstandings.

COMMODITY EXCHANGES

A commodity exchange is a voluntary association of people whose business involves trading in commodity futures contracts.

Some important objectives of an exchange are:

1. Establish equitable principles of business conduct.
2. Provide place for trading and set time of trading.
3. Set rules and standards for trading.
4. Establish uniformity of contract size and trade customs.
5. Collect and disseminate market information.
6. Provide mechanism for adjustment of disputes.
7. Provide machinery to guarantee settlement of contracts and payment of financial obligations.

CONCLUSION

Importers of oilseeds have several buying alternatives which may be used. The easiest and most frequently used alternative is purchasing in the cash market as needed. Hedging in the futures market is one alternative that has many important advantages. It can be used to reduce the cost and risk of imported commodities. The ability to transfer risk to the futures market can improve the operating efficiency of the importers/processors. The establishment of a futures market exchange in Pakistan needs to be studied carefully for its possible contributions to improved pricing and operating efficiency in the Pakistan oilseeds industry.