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Managing Sunflower Price Risk from a South African Oil Crushing Company's Perspective

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Abstract : The integral role oil-crushing companies play in sunflower oil production is often overlooked to offer high-quality oil to refineries and end consumers. Sunflower oil crushing companies in South Africa are exposed to price fluctuations resulting from the local and international markets. Hedging instruments enable these companies to hedge themselves against unexpected prices spikes and to ensure sustained profitability. A crushing company is a necessary middleman, and as such, these companies have exposure to the purchasing and selling sides of sunflower. Sunflower oil crushing companies purchase sunflower seeds from farmers or agricultural companies that provide storage facilities. The purchasing price is determined by the supply and demand of sunflower seed, both national and international. When the price of sunflower seeds in South Africa is high but still below import parity, then the crush margins realised by these companies are reduced or even negative at times. There are three main products made by sunflower oil crushing companies, oil, meal, and shells. Profits are realised from selling three products, namely, sunflower oil, meal and shells. However, when selling sunflower oil to refineries, sunflower oil crushing companies needs to hedge themselves against a reduction in vegetable oil prices. Hedging oil prices is often done via futures and is subject to specific volume commitments before a hedge position can be taken in. Furthermore, South African oil-crushing companies hedge sunflower oil with international, Over-the-counter contracts as South Africa is a price taker of sunflower oil and not a price maker. As such, South Africa provides a fraction of the world's sunflower oil supply and, therefore, has minimal influence on price changes. The advantage of hedging using futures ensures that the sunflower crushing company will know the profits they will realise, but the downside is that they can no longer benefit from a price increase. Alternative hedging instruments like options might pose a solution to the opportunity cost does not go missing and that profit margins are locked in at the best possible prices for the oil crushing company. This paper aims to investigate the possibility of employing options alongside futures to simulate different scenarios to determine if options can bridge the opportunity cost gap.

Keywords : derivatives, hedging, price risk, sunflower, sunflower oil, South Africa
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