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Hard markets for soft?

The case for holistic risk management in agricultural commodity markets

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Extreme market risk is hardly new for manufacturers, merchants and end-users in the agricultural commodity markets. Heightened commodity price volatility directly and indirectly affects profitability, which then complicates purchasing, budgeting and other strategic business decision-making. During the last couple of years, unprecedented commodity volatility has combined with increased consumer demand; speculators pushing commodity prices upward – reminiscent of the energy markets before deregulation – increased regulatory risk around product-tracking and record-keeping; and bouts of heightened credit and liquidity risk

Throughout 2010, an onslaught of drought, fires and record temperatures have rocked the markets, leaving many people hoping that a weak US dollar will help boost demand for exports among foreign buyers. In recent months, Australia has been hit by heavy rain and a drought caused Russia to halt exports of grain. Beyond weather's pivotal role in helping to drive dramatic price action, it also disrupts supply chains.

Unfortunately for some, the pressure on income statements and balance sheets has resulted in extreme earnings volatility and, in some cases, closure. Overall, stakeholders want better returns and more transparency, and they are expanding their scrutiny to include risk management practices. Investors know too well that a breakdown in risk will either compel them to inject more capital or instead watch their equity value plummet when failures become public knowledge.

Organisations not blessed with deep pockets and large cash reserves may be driven out of the business during the unexpected volatility and price swings. The long-term players will need extremely deep pockets to withstand the storm, and those without that luxury will need an effective strategy to manage this potentially devastating price risk.

In the wake of these experiences, the case for agricultural commodity market participants to adopt more of an enterprise-wide approach to risk management is compelling. In our view, informed decision-making around agricultural commodity price hedging and value chain management is only possible with a truly holistic approach to risk management.

Enterprise-wide risk management can also facilitate closer interaction between the traditionally disparate treasury and risk management functions at larger organisations. Closer collaboration can lead to a clearer picture of liquidity, credit and other non-market risks as well as increase operational efficiency.

More broadly, enterprise-wide risk management can also help drive a more risk-sensitive approach to strategic decision-making. This can be on matters such as the optimal balance-sheet funding mix; selection of suppliers, buyers and counterparties; managing the optionality of supply chains; and divestments and acquisitions.

Extreme price volatility in agricultural commodities

Gross processing margins have been squeezed and become unusually unstable during several periods in the last couple of years as a result of dramatic increases for some key agricultural commodity prices and volatility. This kind of dynamic has affected most types of producers – from the company focused on lower-margin staples that is stressed by the volatility of spread between wheat and bread prices, to the confectionary manufacturer whose margins rely on the spread between chocolate bar prices, and cocoa and sugar.

For example, sugar prices increased by a staggering 133% in 2009, as production in India and Brazil failed to keep pace with demand. In contrast, during the first quarter of 2010, white sugar prices decreased by more than one-third from their January high. At the same time, raw sugar hit an 18-month low in mid-March, recently surging to 30-year peaks.

Firms are prompted to consider more active risk management – making the optimal hedging decision can be complex

Rising prices and volatility mean that larger companies involved in agribusiness are increasingly asking if they should hedge commodity price risk, and to what extent. Of course, rationales for using derivatives are dependent on the precise nature of the businesses in question.

Classically, hedgers have tended to ignore the basis. However, the basis of some commodities can become volatile as elasticity of demand and transportation weighs in. For example, winter frosts impact supply of spring wheat deliveries. This means higher board, and basis with fuel costs compounding the price upswing.

Traditionally, a trader's view is that, if they are hedged completely on the exchange, they are risk-neutral. This is not always the case because basis fluctuates – this is where the profit and loss is calculated. Simply stating that the basis volatility is smaller than the futures may be irrelevant. The company can analyse and fund the risk-averse and more profitable trading ventures by reporting the risk-adjusted return on capital (RAROC) of the desk.

Managing profit volatility: Clearly, the difference between the cost of a commodity and a processed product can be highly volatile. Hedging around this spread with futures, options or exotics can help lock in a profit upfront or help manage downside risk on the future gross processing margin. Similarly, a producer can stabilise its future income through selling some of its crop forward using futures or options as part of its overall marketing strategy. Some manufacturers may choose to try to pass the volatility on to their customers but, frequently, the pricing of finished products is fixed for extended periods, leading to a dislocation in volatility across the production cycle.

Additionally, the cost of funds (COF) needs to be accounted for – and in most cases it is not. It is critical that the risk manager has the capability to analyse trades from front to back. For a high-volume/low-margin trader, the COF for margin calls coupled with slow-paying receivables could actually cost the firm money. For example, while a trade had a 0.02 cents per bushel profit, they could actually lose in COF and receivable float.

Consequently, basis risk can compromise the effectiveness of hedging activity with the ineffective hedge, tying up unexpected amounts of cash due to margin/collateral calls. For example, some grain hedgers' balance sheets have come under extreme pressure as spot and futures market prices have diverged in recent years. Hedgers faced progressively larger margin calls and many had to scramble to secure additional credit from agribusiness lenders. This had a knock-on effect elsewhere in the supply chain. Faced with rising costs and volatility, grain elevators backed away from offering forward contracts to wheat producers.

Moreover, companies need to understand the inherent risk of a counterparty defaulting and actively manage their credit risk. For example, a company has sold 100,000 bushels of corn to an ethanol plant, for October delivery, at $4.70 ($4.50 futures and 0.2 basis). December corn is trading at $4.50. The company purchases 20 CZ0 contracts, leaving it perfectly hedged as it has small profit locked in. A month later, December corn is trading at $3.50, and the company's ethanol customer has filed Chapter 11 bankruptcy protection. The company now owns $4.50 futures when the market is at $3.50 – a profit just turned into a $100,000 loss. Managing counterparty risk is an essential part of a comprehensive risk management programme.

A backdrop of dramatically rising fuel costs adds further to the widespread pressure on liquidity.

Another important complication to hedging is previously unnoticed correlation. For a vertically integrated, diversified and energy-intensive agribusiness, numerous complex interrelations can be at play – a rise in natural gas or oil prices drives up its energy costs or it can increase demand for ethanol and indirectly influence the price of the grain that it needs to purchase.

Effective risk management requires a coherent framework

If our extensive experience with clients in the energy sector over the last two decades is any indicator, the soft commodity market participants that meet the challenge of adopting a holistic risk management approach will gain a true competitive advantage in terms of managing costs and safeguarding profits. They will have also developed a coherent framework that will encourage both objectivity in strategic business decision-making and a more informed dialogue between different parts of their business.

With the use of product-tracking functionality, they can potentially enhance operational efficiencies around storage and logistics, and create physical audit trails that are invaluable for accounting and regulatory purposes.

Senior management can reap real benefits with the right technology solution in place. They can make more economically informed decisions around hedging, procurement and operational choices.

A risk-sensitive culture

An effective enterprise-wide risk management strategy has some added benefits relating to budgets and capital allocation. We anticipate that the adoption of RAROC techniques from the banking and energy industries will be employed by leading agribusiness firms. Such techniques will assist in the decision-making around allocation of capital between competing business units.

Ultimately, when risks are understood and managed effectively, the decision-making processes of a firm's key executives is improved – as is access to investment capital. Once firms streamline risk systems, they can effectively clarify the risk levels for soft-commodity purchases or sales as well as processing and transportation decisions down to an individual transaction. With this wealth of information, firms can have the competitive advantage of knowing where they stand and be prepared for extreme market conditions.

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