**Case 4 Southwest**

**Assignment**

**1) You are the manager of the internal Corporate Analysis Group at Southwest Air. Senior Management has asked you for an initial meeting to discuss whether to hedge jet fuel purchases over the next 3 - 5 years, and if so, how this might be done. Annual jet fuel requirements for the Southwest Air fleet of airplanes is 580,000 gallons and rising. What knowledge about the firm should you have as you enter the meeting? This is your opportunity to demonstrate that you have a grasp of strategic issues of importance to the firm, not just a technical knowledge of hedging design and practice.**

**•  Summarize Southwest Air’s business model, its view of itself and the industry in which it lives. Would a hedging program fit the firm’s view and its strategic objectives?**

Southwest was formed in 1971 by Rollin King and Herb Kelleher and the airline began with three Boeing 737 aircraft serving the Texas cities -- Dallas, Houston, and San Antonio. In addition to be a top-quality airline, Southwest was also innovative. They were the first airline with a frequent flyer program to give credit for the number of trips taken and not the number of miles flown. Additionally, they pioneered senior discounts, same-day airfreight delivery service, ticketless travel, and many other unique programs.

Airlines use derivative instruments based on crude oil, heating oil, or jet fuel to hedge their fuel cost risk. The majority of airlines rely on plain vanilla instruments to hedge their jet fuel costs, including swaps, futures, call options (including average price options which are a type of call

option), and collars (including zero-cost collars). So, a hedging program fits the firm’s view and its strategic object.

**•  How easy is it for Southwest Air to pass along any increases in jet fuel costs to the buyers it serves? Is hedging a way that Southwest Air can profitably differentiate itself from competitors? Be specific.**

Because large airlines compete with one another on most of the routes they serve, they have little power to raise prices in response to higher fuel costs. For example, Continental Airlines rescinded a fare hike after trying a number of times to boost overall fares. The airline said the airfare increases were due to high fuel costs, but intense airline competition has left the firm unable to pass along fuel costs to customers.

Obviously, competition is a top concern for Southwest. With air travel becoming a commodity business, being competitive on price is the key to survival and success. Hedging is a way that Southwest Air can profitably differentiate itself from competitors because it will hold a stable ticket price and the customers will not betray.

**2) There are five strategies considered by Southwest Air:**

**1. Do nothing.  
2. Hedge using a plain vanilla jet fuel or heating oil swap.**

**3. Hedging using options.  
4. Hedge using a zero-cost collar strategy.  
5. Hedge using a crude oil or heating oil futures contract.**

**(a) Evaluate each of the five proposed hedging strategies. What are the strengths and weaknesses of each? Advantages and disadvantages?**

The “do nothing” strategy has one primary advantage, not spending money on hedging costs. Moreover, not hedging allows companies to not waste money in times of low crude oil and fuel prices. However, a sharp rise in oil and jet fuel prices could cause LUV to be less profitable than its competitors.

A hedging strategy using a plain vanilla jet fuel or heating oil swap is a contractual agreement in which a floating price is exchanged for a fixed price over a specified period of time. There is no transfer of the physical commodity and the contractual obligations are settled through the transfer of cash. The advantages are flexibility, but there is liquidity and credit risk involved.

An options hedging strategy provides a high degree of flexibility, virtually no credit risk, no contractual obligation (unless the hedger is short options). Options could be used to hedge cross-market risks, especially when liquidity is a concern. One main disadvantage is that energy options could be expensive. Due to the high volatility of energy commodities, the premium for options could be very expensive.

Now, a zero-cost collar is a reasonable hedging strategy for many airlines because there is no upfront cost. The long call option provides protection during the life of the option against upward commodity price movements above the call strike price. The premium received from selling the put option helps offset the price paid for the call option. By establishing a collar strategy, a minimum and maximum commodity price is created around a hedger’s position until the expiration of the options. If the underlying asset falls below the strike price of the short-put option, the hedger would need to deliver at the expiration date.

Hedging using crude oil or heating oil futures contracts provides a more liquid hedging strategy than in just jet fuel futures contracts. Futures contracts also have low credit risk and are standardized. The main disadvantages are that futures contracts are inflexible and face basis risk. Basis risk is a situation in which the value of the commodity being hedged does not change in lock-step with the value of the derivative contract used to hedge the price risk.

(**b) Describe how a combination of the hedging strategies can be used.**

There are many hedging strategies. For a long position, a trader may hedge with a vertical put spread. This strategy involves buying a put option with a higher strike price and then selling a put with a lower strike price. A put spread provides protection between the strike prices of the bought and sold puts. If the price goes below the strike price of sold puts, the spread does not provide any additional protection. This strategy provides a window of protection to the downside. This strategy has advantages and disadvantages over just a bought put. The premium for the put spread is reduced by the amount of sold put less commissions. While a put option owned outright generally loses value due to time decay, the vertical put spread suffers from less time decay due to the sold put.

**5) Why does Southwest Air prefer average price options and zero initial cost collars vs. vanilla options and standard forwards to hedge its jet fuel risks?**

A collar is a combination of a put option and a call option. For a hedger planning to purchase a commodity, a collar is created by selling a put option with a strike price below the current commodity price and purchasing a call option with a strike price above the current commodity price. If more protection against upward price movements is desired (i.e., having a lower call option strike price) or more benefit from declining prices is desired (i.e., selling a put with a lower strike price), a premium collar is used. With a premium collar, the cost of the call option is only partially offset by the premium received from selling a put option.

Using a zero-cost collar or premium collar may appear to be a reasonable hedging strategy for an airline since it involves no upfront cost (or low upfront cost) and involves no speculative return. However, if jet fuel prices fall significantly, the airline may pay more for jet fuel than its competitors who did not employ the collar strategy. Competitors may lower their airfares aggressively as a result. Accordingly, the zero-cost collar should be more accurately called a “zero-upfront cost” collar.