

WINNING WAYS WITH HEDGING

AIR JAMAICA HAS TURNED HEDGING INTO A FINE ART WHEN IT COMES TO MANAGING ITS FUEL COMMODITY RISKS. **GARY OSBORNE** EXPLAINS THE RATIONALE AND DETAILS HOW THE AIRLINE TACKLED THE TASK.

Fuel is one of the most critical variable cost within the airline industry. Over the past few weeks, we have seen the cost of jet fuel increase from less than \$0.60 per gallon to more than \$0.70 per gallon, with the general view being that there is still further upward pressure. Over the past three years, fuel has been a major component of operating costs:

- 1999 = 8.8% ▪ 2000 = 12.7% ▪ 2001 = 11.5%

With jet fuel being such a key component of cost, airlines will endeavour to reduce their vulnerability to market volatility by employing hedge strategies within the commodity (physical) and paper (derivative) markets. In assessing the hedging needs of an organisation, a determination must be made on the extent of price risk to be hedged. The basic issue therefore is one of general business philosophy, levels of price risk assumed versus management's rate of return objectives. While this issue is not easily resolved, a hedging programme probably requires an implicit, but not necessarily precise, assumption about risk and return objectives.

STRATEGY. Within the industry in general over the past two to three years the challenge has been how to provide the maximum amount of protection to jet price fluctuation at the least possible cost. With this objective in mind, a strategy that has been followed by Air Jamaica is one of 'zero' cost options and collars.

The price paid to buy an option is dependent primarily on the exercise price relative to the current market price of the underlying commodity futures contract, the duration of the option, and the volatility of the price of the underlying commodity. Therefore, in order to achieve your goals, constant monitoring of the market is necessary. It could also be argued that the best time to transact a new hedge is when you have a strategy in place and you are protected and comfortable.

The hedging programme followed by Air Jamaica is one of paper derivatives, which means they are not directly associated with any physical fuel purchases and are documented using industry standard swap and ISDA agreements.



The image contains the Air Jamaica logo at the top, which features a stylized 'J' inside a circle above the text 'airJamaica' and the tagline 'Serving to new heights'. Below the logo is a photograph of an Air Jamaica aircraft in flight, viewed from a low angle against a blue sky with white clouds. The aircraft is yellow and white with the Air Jamaica logo on the tail.

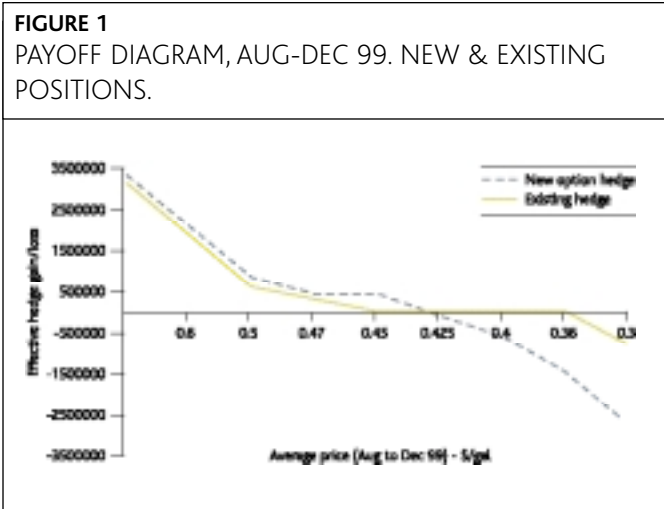
- Jamaica, like most of the Caribbean economies, is an economy in transition, moving from its heavy dependence on agriculture and mining to service-based economies. Air Jamaica's role as the flag carrier of Jamaica, Barbados and Grenada is to support the growth of tourism in the region.
- As the largest Caribbean airline, operating some 340 scheduled flights per week, the company's primary market is the US. This accounts for roughly 80% of the passenger revenues. The airline provides service to 23 US and Caribbean gateways as well as Europe, namely London and Manchester.
- The company has received many awards that attest to the quality of its service. However, revenue enhancement and cost control is very much the order of the day.

OUR FIRST VENTURE. Air Jamaica's first venture into the paper market was in December 1998 and was serviced by one of its large fuelers, with the following zero cost collar:

- US Gulf waterbourne with a put (floor) of \$0.36 per gallon and a call (ceiling) of \$0.45 per gallon;
- 13-month contract from December 1998 to December 1999; and
- volume of 32.76 million gallons for the 13-month period based on 60,000 barrels a month or 2.52 million gallons per month.

One of the key functions of this hedge was to give Air Jamaica protection on 60% of its volume and leave 40% floating. Although the hedge provided cover up to December 1999, in August 1999 the airline was concerned about 2000 and beyond and proposed a multiple leg transaction with one of its commercial banks. The aim of this transaction was as follows:

- to cover the remaining 40% we had left floating;
- execute a new transaction without disturbing the existing deal, so providing cover for the year 2000; and
- to crystallise the then current value of Air Jamaica's existing fuel hedge.



The details of the transaction are outlined in the adjacent column. The effective gain and loss of this proposed hedging 'package' versus the outcome under the existing hedge is illustrated in *Figure 1* for the period August to December 1999.

OUR LATEST STRATEGY. In the early part of 2002, in an attempt to mitigate its exposure to rising fuel prices, so as to have disaster insurance against an extreme and prolonged rise in fuel prices and some degree of budget protection, a series of swaps were recommended.

While there are many strategies that may be considered to reach these objectives, including fixed price swaps, capital purchases and zero cost collars a programme of fixed price swaps, executed in increments as price targets are reached, was recommended, for the following reasons:

- prices were at very attractive (low) levels, especially when considering the lofty levels of the past 12-18 months;
- volatility had made any option-based strategy, such as caps or collars, expensive which erodes the protective value of the strategy;

■ 1999 HEDGE – TRANSACTION DETAILS

▪ **Commercial bank pays US\$850,000 upfront.** Amount is payable five business days after agreement to enter transaction.

▪ **Air Jamaica reverses existing hedge transaction.** It transacts the following collar with commercial bank. Sells jet call/buys jet put.

Expiry: August to December 1999 (monthly).

Amount: 2,520,000 gallon/month.

Call strike: \$0.45/gallon.

Put strike: \$0.36/gallon.

▪ **Air Jamaica enters new fuel collar.** It transacts following collar with commercial bank. Buys jet call/sells jet put.

Expiry: August to December 1999 (monthly).

Amount: 2,520,000 gallon/month.

Call strike: \$0.50/gallon.

Put strike: \$0.45/gallon.

▪ **Air Jamaica grants a put option over un-hedged fuel of balance 1999.** Air Jamaica transacts following put option with commercial bank. Sells jet put.

Expiry: August to December 1999 (monthly).

Amount: 1,680,000 gallon/month.

Put strike: \$0.50/gallon.

▪ **Air Jamaica grants a put option over 40% of calendar 2000 fuel consumption.** Sells jet put.

Expiry: January to December 2000 (monthly).

Amount: 1,830,000 gallon/month.

Put strike: \$0.45/gallon.

▪ **Air Jamaica grants a collar option over 60% of calendar 2000 fuel consumption.** Air Jamaica transacts collar option with commercial bank. Sells option on jet fuel collar – buying call/selling put

Expiry: 31 December 1999

Collar Period: January to December 2000 (monthly).

Amount: 2,750,000 gallon/month.

Call strike: \$0.55/gallon.

Put strike: \$0.45/gallon.

Under the collar option, the commercial bank had the right on 31 December 1999 to enter Air Jamaica into a jet fuel collar in which Air Jamaica buys a jet fuel call at \$0.55/gallon and sells a jet fuel put at \$0.45/gallon at zero cost (at the time this collar carried a premium value of more than \$1m).

- swaps, which provide immediate price protection, were more suited to budget protection than out-of-the-money option strike prices; and
- many analysts believed that fuel prices were more prone to move significantly higher from current levels than significantly lower. The upside risks were primarily geopolitical risks and the expectation that global economies, and therefore oil demand, would recover around mid-year.

The proposed strategy would work as follows: Air Jamaica would divide its planned volume to be hedged into three or four increments or tranches. With this strategy, it would execute the first tranche almost immediately as the base hedge volume and scale into the remaining hedges as market opportunities present themselves. The airline would establish the price targets on the incremental transactions and could leave standing orders with its counterparty to execute as market levels allow.

One of the advantages of swaps is that they require no upfront premium payment, but are reconciled at the end of each calculation period – typically on a monthly basis. In effect, the upside protection is funded through the forfeit of downside participation should the price move lower. But even this risk is mitigated by not hedging all volume at once but layering into additional positions as prices fall thereby lowering the overall average.

To illustrate how the swap would work, let us assume a 12-month fixed price swap using Platts Gulf Coast jet fuel as the index

and \$0.65 per gallon as the strike price. At the end of each month, an average price will be calculated and compared to the fixed price of \$0.65 per gallon. If spot prices average \$0.70 per gallon, then Air Jamaica will receive a payment of \$0.05 per gallon for the volume hedged. Conversely, if spot prices are \$0.60 per gallon, Air Jamaica will make a payment of \$0.05 per gallon. In either case, the fixed price of \$0.65 per gallon is achieved.

LONG TERM ISSUES. We have outlined a number of hedging strategies by which Air Jamaica has sought to protect itself from oil price uncertainty. After 11 September, and the following period of stagnation, world economic expansion has started to pick up momentum. This has been led by continued strong gains in the US, while signs of renewed growth in developing Asia's economic recovery is translating into increased oil requirements. Within the near term, the war on terrorism and the current Middle East situation will also play an important role as to where oil and therefore jet fuel prices go. However, in the long run, the key issue with respect to jet price is how vigorous OPEC is in its pursuit of supply controls. With this in mind, airlines will continue to have the need for various hedging instruments.

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