

Hedging strategies for airlines: The shareholder value perspective

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Airlines, particularly those in the US, continue to suffer from high jet fuel prices. Hedging is often touted as the solution to this problem, but can be a double-edged sword for those who are not clear about why they are doing it.

In the 19th century Soren Kierkegaard made a profound observation that should be taken to heart by today's airline fuel managers: "Life can only be understood backward, but it must be lived forward."

This fact should be borne in mind by those who celebrate the management of airlines that have hedged fuel costs and criticise those who have not. Perhaps they should remember the words of another great philosopher; "It's better to be lucky than good." To these words we might add, "And it's best to know the difference."

Casual observation suggests that there has been a shortage of both lucky and good among airlines in recent years. According to the International Air Transport Association (IATA) the global industry lost US\$4.8bn in 2004 and will lose US\$6bn in 2005 at US\$47/barrel crude oil (forward prices are currently above those levels). Much has been made of the connection between mounting airline losses and fuel prices, and the connection appears to be quite direct.

As Giovanni Bisignani, Director General and CEO of IATA recently remarked, "The crisis in our industry continues ... the fuel bill [this year] of US\$83bn [up from US\$61bn in 2004] is destroying our profitability."

Testifying before a House subcommittee looking at the effect of high energy costs, James May, President of the Air Transport Association forecast that US airlines will pay US\$6.8bn more for fuel in 2005 than in 2004. "If oil stays high and our taxes with it, I expect more jobs lost, more flights cut and more airlines in crisis," May said.

As a result, May said the airline industry was losing an estimated US\$17,000 every minute.

Fuel cost is the second largest operating expense for airlines, traditionally accounting for around 12%–13% of overall operating expense in 2003.¹ The fuel bill now accounts for about 22% of total costs having jumped US\$39bn in the last two years.

In addition, substantial jet fuel price increases in recent months (Table 1), as well as the reduction in other airline operating costs have brought those percentages to higher levels. Therefore, the idea that rising fuel prices puts pressure on profits is a natural one.

At the same time, since coal-burning aircraft never got off the ground, all airlines use jet fuel, which suggests that there should be limited competitive advantage among airlines on fuel costs.

So the increase in fuel prices represents a shock for all airlines, and it might seem that passing along increased fuel costs to passengers should be relatively easy when compared to an industry that enjoys substitutable fuel/technology choices. In response to higher fuel prices, many airlines have attempted to raise fares on multiple occasions.

But underlying the fuel price problem are the twin issues of overcapacity and demand response to ticket prices. An overabundance of seats and the resulting competition to generate enough demand to make a profit is a challenge that airlines have been struggling with for many years, especially since 9/11. And the threat from the low-cost carriers (e.g. Southwest, JetBlue) exacerbates the competition whether fuel prices are high or low.

Added to the built-in overcapacity is the fact that demand for airline tickets, particularly from vacationers, is sensitive to price. Empirical studies show that on an aggregated level, airline demand would decrease by roughly 1% if airfare went up by 1%. Apparently, a large number of potential passengers will opt to stay at home or drive the kids to Wally World rather than pay the increased cost of getting somewhere by air.

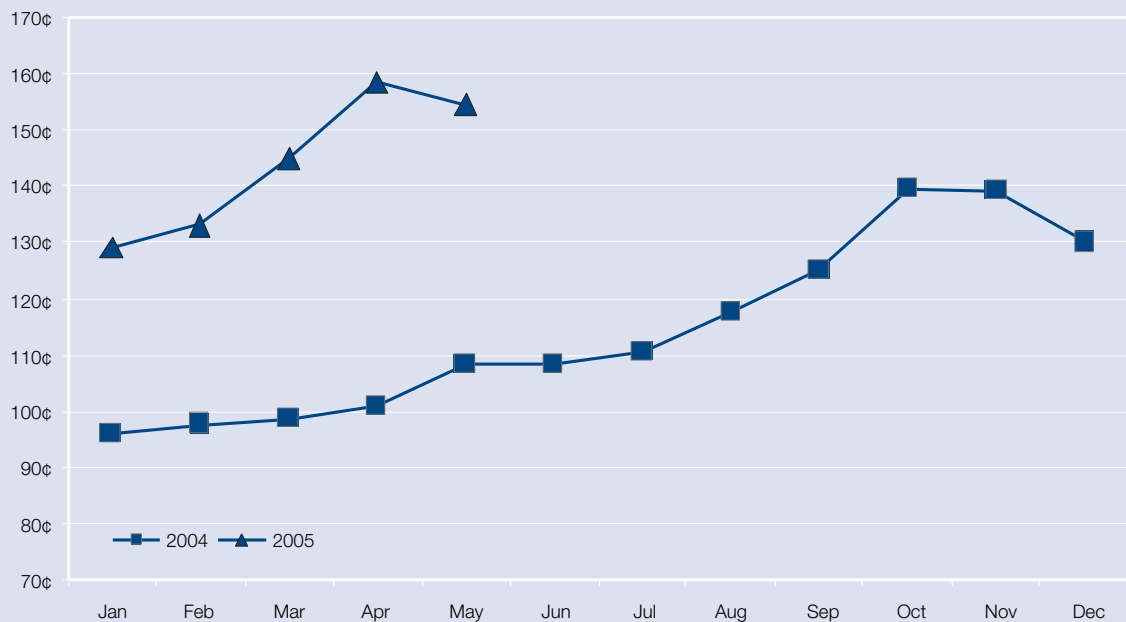
As a result of overcapacity and demand response to rising ticket prices, airlines cannot easily pass along a cost increase. Thus, their profits become more sensitive to changes in jet fuel prices: if jet fuel prices remain at current levels, many airlines will continue to suffer considerable operating losses.

If fuel prices keep increasing, several carriers that are on the ragged edge may be forced into bankruptcy; the market's way of dealing with overcapacity.

Living life forward. This brings us to the issue of hedging. Most of the criticism of airline hedging policy has run something like, "Look at how high fuel prices are! And look at how low prices were! Why didn't management purchase fuel forward when prices were low? They must be stupid."

This seemingly impeccable piece of logic has a flaw, however. It assumes that airline management had a reason to act on expectations of rising prices. And not increases from spot, either, because buying forward fuel at spot prices is typically not an available alternative. The assumption is that fuel managers had ample reason to expect realised spot prices to rise above the then available forward prices.

Table 1: Average Jet Fuel Price (Paid) per Gallon



Source: Air Transport Association

Such thinking is not alien to airline fuel managers. In a 2001 article about airline fuel hedging, Gary Kelly, Southwest Airlines' Vice Chairman of the Board and CEO was quoted as saying: "We came to grips at the beginning of the year that we were faced with a prolonged shortage of crude. We thought that any price in the low 20s [US dollars per barrel of oil] was a good one."²

This certainly turned out to be accurate, but was it hedging or speculation? By what most would consider a reasonable definition, any position taken in the expectation that prices will move in a particular direction is speculative. This is as opposed to hedging, which is an effort to lower the uncertainty around future price, regardless of level. So, according to this definition, Southwest was speculating.

But, at least in this case, doesn't not hedging involve significant risk, and, hence constitute speculation? Scott Topping, Director of Corporate Finance for Southwest Airlines was quoted as saying: "If we don't hedge jet fuel price risk, we are speculating. It is our fiduciary duty to try and hedge this risk."³

While it is easy to be sympathetic to this argument, there are reasons to believe that it is mistaken. Airlines have fuel price exposure not because they have a view about future price levels, but because having an exposure to fuel prices is inherent in the air transportation business. Furthermore, "hedging" your natural exposure *because you think prices are going up* is not hedging. It is speculation, which is not a natural part of the air transportation business.

The key question is whether an airline should hedge to improve the "quality" of its earnings by reducing their variability, not whether it should remove any of its natural exposures such as jet fuel price risk.

Unlucky and good? So, what should we do? From the example above, along with many others we have seen, we observe a strong belief among managers that "speculation" is bad and that "hedging" is good. The objective, then, is to figure out

what speculation and hedging are, and then choose the good one.

Unfortunately, as we saw above, there is generally considerable confusion about what hedging and speculating are. We suspect that this belief in hedging and distrust of speculation is the reason we see things like the trade blotter that says:

- 9:02 a.m. Placed hedge.
- 9:15 a.m. Lifted hedge.
- 9:22 a.m. Reset hedge.
- 9:25 a.m. Placed bigger hedge.
- 9:34 a.m. Lifted existing hedge and placed hedge in opposite direction.

The benefits from success with this type of "hedging" (really speculation) are obvious. Buying low and selling high is always a good strategy, if you can pull it off. The benefits from true hedging are more subtle, but they might include those highlighted in Table 2.

These sources of value are complicated, particularly in comparison with "buy low, sell high," and require a further degree of analysis. The wonderful thing about all of them, however, is that they have direct connection to shareholder value. For example, hedging that aims to avoid underinvestment adds to shareholder value by allowing the company to make value-creating investments that they would not otherwise make.

Hedging to avoid potential cash shortages lowers the expected cost of funds for ongoing operations and other expenditures, which, again, redounds to the benefit of the shareholders.⁴

So those airlines that have not hedged aggressively (see Table 3) may have made the best decisions, even as the outcomes favoured those that read tea leaves and took a position. Perhaps the analyses of those that argue that airlines should not hedge at all may be on the right track. For example, Rod Eddington, British Airways' CEO, was recently quoted as saying, "When you hedge all you do is bet against

Table 2: Benefits From True Hedging

Sources of value	Risk management objectives	Appropriate risk metrics	Proto-typical candidates
Minimise expected cost of financial distress Reduce expected tax liabilities	Avoid changes in firm value that could lead to financial distress Minimise the variability in taxable income	Capital-at-risk Taxable earnings-at-risk	Highly levered companies with volatile asset values Highly profitable companies in steeply progressive tax environments
Lower the cost of funds	Lower the chance of a cash shortage leading to a need for costly external financing	Cash-flow-at-risk	Growing, capital intensive companies
Avoid underinvestment	Minimise impacts of management risk aversion by aligning management behaviour with desires of shareholders	Various, depending on management compensation	Companies whose management compensation is not closely tied to stock returns

Table 3: Summary of Current Hedging Practices at Leading US Airlines¹

American	15% hedged in Q1
United Airlines	11% hedged for 2005
Delta	Not hedged
Northwest Airlines	Hedged about 25% for Q1; 6% for 2005
Continental	Not hedged
Southwest	85% hedged
US Airways	No fuel hedged as of December 31, 2004
America West	45% hedged for 2005; 2% for 2006
Alaska Air	50% hedged for 2005
JetBlue Airways	22% hedged for 2005

Note: ¹ranked by size in terms of passenger traffic
Source: Reuters. Wall Street Journal. March 2005.

the experts of the oil market and pay the middle man, so you can't save yourself any money long term."

However, hedging decisions need to be analysed in context. For example, under the current financial condition of most airlines, where the shadow of bankruptcy looms over the industry, there may be good reasons for hedging fuel risks. Several airlines have claimed that the reason for not hedging were the high costs to enter into forward agreements with banks. However, despite the high upfront costs, airlines should carefully evaluate the costs of not hedging in terms of the impact in their overall business strategy.

In recent months, IATA is working with leading banks worldwide to use the IATA Clearing House for settlement of hedging transactions in order to enable extension of new or additional credit and to reduce the costs associated with risk premiums.

Gerald Grinstein, Delta's CFO recently said that "Record-breaking fuel prices are masking the many crucial, large-scale, core initiatives our airline implemented during the quarter. The issue is simple: including fuel, Delta is not on plan, but excluding fuel, we are better than plan."⁵ The bottom line is that because of higher than expected fuel costs, Delta is facing imminent bankruptcy, even though their "flawed" strategy was "flawlessly" executed.

Knowing the difference. The foundation of any good hedging programme is a direct, unambiguous, and rigorous connection between lowering market risk and raising shareholder value. One way to achieve this is to link the hedging decision to the overall business strategy. As we have seen in Table 1, there are a number of ways in which hedging could increase share value, given the right circumstances. At the same time,

there are many commonly cited reasons for hedging that are questionable in shareholder value terms.

Satisfying rating agencies, for example, may or may not be a good reason to engage in a hedging program. Rating agencies reflect the interests of the bondholders, while management owes its allegiance to the shareholders. When maintaining a particular debt rating is expected to benefit the shareholders by, for example, lowering the cost of debt, hedging to keep that debt rating may be a good course of action. On the other hand, turning the assets of the firm into a high-quality bond would benefit the debt holders to the detriment of the shareholders.

To give us some practice and to illustrate how management might keep its eyes trained on shareholder value, consider two cases from a shareholder perspective:

Imagine that Airline A announced today that they have performed an analysis showing that the current forward price for crude oil is too low, and so they will be taking large positions in the futures markets to "hedge" their projected fuel requirements in the expectation of large hedging gains. But, since we are talking about "the world's most actively traded commodity,"⁶ the equity markets could be expected to currently reflect the forward market price for oil. That is, the equity market can be expected to believe that the oil futures market is an unbiased estimator of future spot prices, and taking a position contrary to the market cannot be expected to yield a return, all other things being equal.

Suppose, on the other hand, that Airline B has the goal of becoming the low-cost hub-and-spoke carrier in its markets, at least in part by purchasing a new class of fuel-efficient aircraft. Today it has announced that it has examined the oil

market's view of the range of future prices, analysed the expected impact of potential oil price changes on ticket prices and passenger miles flown in their markets, and concluded that the chance of having to bear the additional cost of having to go outside the company for the funds to purchase the new jets could be substantially avoided by hedging 35% of its projected fuel requirements for the next three years, at a total cost to equity holders that is less than the benefit from avoiding the chance of external financing.

The second case provides a rationale whose connection to shareholder value is clear, explicit and defensible. The first has an expected payoff of zero – excluding transaction and tracking costs. If, however, you are intent upon pursuing this more speculative approach, perhaps Kierkegaard can offer some more cogent advice about the long term: “I see it all perfectly; there are two possible situations – one can either do this or that. My honest opinion and my friendly advice is this: do it or do not do it – you will regret both.”

Notes:

- 1 SDG estimate. Based on Air Transport Association of America “ATA Economic Report” (2004).

- 2 Wall Street Journal. January 16, 2001.
- 3 Carter et al (2004).
- 4 Note, too, that “stabilising reported earnings” is not on the list. There is considerable evidence that earnings stability is not something for which the equity markets will pay extra.
- 5 Delta Air Lines Reports Results for March 2005 Quarter. Press Release. April 21, 2005.
- 6 NYMEX Homepage (http://www.nymex.com/jsp/markets/lscot_fut_desc.jsp).

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