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When 'Bubbles' Collide

Gaming Oil Corrections

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– *A Drag On The Market*

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Elaborating On
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RON SCHELLING



Jet Fuel

– To Hedge Or Not To Hedge?

(Part 2)

Ron Schelling continues his coverage of the problems global airlines are experiencing with rapidly increasing fuel prices



In the February issue of *The Trader's Journal*, I discussed the airline's upcoming problem with high crude oil prices. Now that prices have moved even higher, it is becoming a real problem for them now.

When that article was written in early February 2008, the world average jet fuel price was around 2.75 USD per gallon. This price level represented a steep climb from the average price of January 2007 when jet fuel was at 1.70 USD per gallon.

Now, it is June 2008. The average price of jet fuel is around 4.00 USD per gallon. Jet fuel prices have more than doubled since January 2007!

The business environment has continued to be exceptionally challenging for global airlines. One of their prime concerns is the soaring price of jet fuel, which is bringing massive structural changes in the global airline industry. Rising prices have forced the airline industry to review other measures to improve profitability or to at least reduce losses.

Managing fuel costs has become a full-time job for airline management teams. Hedging interest rates for leased aircraft is a second important issue in addition to foreign exchange risk for non-U.S. airlines.

The cost of crude oil has risen from around 30 U.S. dollars per barrel in 2003 to its present level around 130 U.S. dollars per barrel and jet fuel prices have seen similar increases. At these price levels, the price of fuel has overtaken the cost of labor as the airline industry's top cost representing more than 30 percent of airline average operating expense. Only a few years ago, jet fuel was around 10 percent of operating expenses!

Crude oil prices are influenced by global factors. Typically, the price of crude oil is driven by global economic activity, increasing or decreasing supply, geopolitical insecurity and instability, production levels and demand factors.

Since late 2006, a weaker U.S. dollar has also affected the price of crude oil. The large price increase in crude oil has affected U.S. consumers more than others around the globe because the weaker U.S. dollar has more or less compensated for their local oil price increases.

However, jet fuel prices were more affected due to overburdened refineries, pipeline competition and refinery outages.

Are there any solutions?

With the present rate of increase, we can expect many airlines to cut costs and the number of flights in order to



cover their fuel bill in 2008. Also global airlines will use more techniques to hedge their fuel risk with commodities, currencies and interest rates.

Some airlines are even studying whether to have planes fly slower to save fuel! Is it too late to hedge jet fuel with prices at historic high levels? We are very high in the oil price cycle and it may be that the airlines hedging their jet fuel costs at these levels are buying at the top of the cycle!

For daily demand, airlines are forced to follow crude oil prices constantly and hedge price risk as much as possible with various kinds of market instruments.

Commonly used instruments are swaps, caps and collars while other strategies include exotic instruments like knock-out options or vanilla strategies. However, airlines each have different risk / return policies.

In the following chart, the daily close price (dot) of jet fuel in New York is shown. The boxes around the daily price are the weekly bars showing the weekly highest/lowest close of that week.

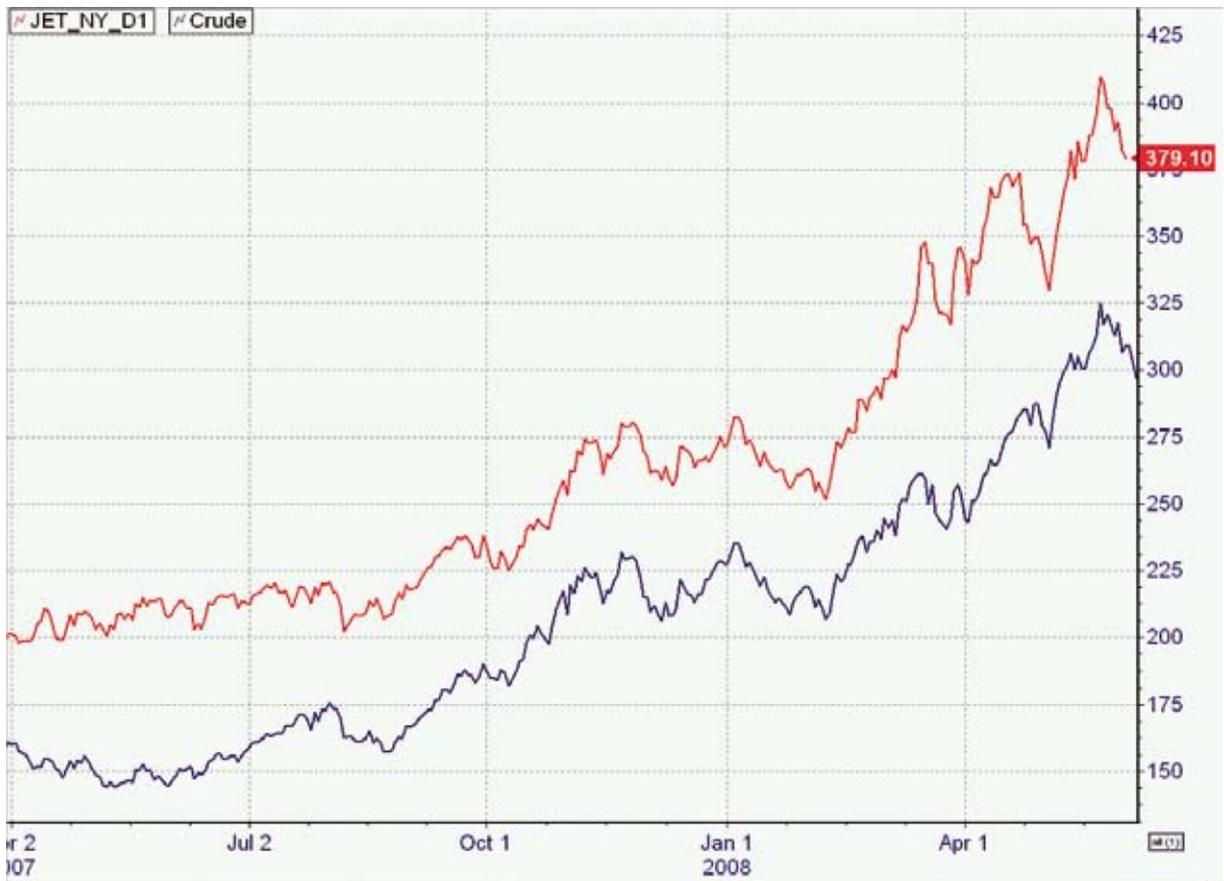
The strategy is that the trend is up when the close is higher than the previous weekly highest closing price while a close below the weekly previous lowest closing price means the trend is down.

This is actually a very simple way to select direction of the market. For airlines, this is a way to determine when they have to buy more in advance or wait for a few days as the trend is down.

Of course, hedging is different than speculating as they try to hold and maintain an average better purchasing price than the real market price. In this way, airlines can plan and calculate their fuel costs into the future.

The next chart shows the big difference between jet fuel prices in U.S. dollars and in euros. Non-U.S. dollar airlines calculating rates in other currencies are much better off these days. Of course, their jet fuel prices have climbed as well, but not as much as for airlines calculating only in U.S. dollars.

Therefore, hedging jet fuel in U.S. dollars is not enough for non-U.S. dollar calculating airlines and they have to





hedge their local currency as well.

Exchange traded futures contracts or over-the-counter swap contracts such as Gas Oil futures on the ICE or NYMEX Heating Oil contracts have high correlation with jet fuel prices.

The next chart shows the historical price movement between the real crude oil contract and the price of jet fuel. So airlines can hedge their jet fuel risk with Heating Oil future contracts or even Crude Oil future contracts.

Basic options and basic swaps can be used as part of a hedging program. However, airlines hedging fuel prices are exposed to spread risk as there are no exchange contracts available.

Airlines typically use proxy markets as the underlying for their hedge of jet fuel. The spread risk is the risk that the hedge will not move in line with the underlying jet fuel exposure.

In the following chart, we see that even with the high cor-

relation between jet fuel and heating oil, sometimes the correlation moves away from its normal route as it does during the March to May period.

Conclusion

Airlines would typically execute a basic swap for long-term hedges. They normally hedge first with Heating Oil futures contracts and then hedge the risk for a longer period when the difference between the jet fuel and the futures contract is more in line with the long-term difference.

Of course, all of these hedging instruments depend on many factors like market liquidity, market structure, available cash, budgeting and airline strategies. All hedging is done to fight constantly higher prices and to keep fuel costs under control.

(Source: US Energy Information Administration)

Ron Schelling is an independent trader in The Netherlands with over 30 years in aviation, of which 20 years experience trading Forex, futures arbitrage trading and jet fuel hedging analyses. He can be reached on www.2hedge.com