Managing Risk: Where to Start

by Ira G. Kawaller

All commercial enterprises face risk – of myriad types. In fact, the term "enterprise risk" has become a catch-all to cover this wide range, encompassing everything from, legal risk, reputational risk, operational risk, political risk, etc., etc., etc. And while it's clearly better to have an awareness of these risks as opposed to not, most of the remedies boil down to hiring smart people who operate with their eyes open and act with integrity. Unfortunately, by the nature and diversity of the inherent risks associated with business activity, even the most diligent efforts to control risk will be beset with episodes where "stuff happens." It's simply unrealistic to expect to be immunized against all risks and still be in business. Rather, managers need to appreciate that we operate in a probabilistic world, where a wide range of outcomes may be possible. Thus, appropriate risk management activities should rest on cost benefit analyses, designed to determine which potentialities should be limited or mitigated – if possible -- and which should go unchecked. Complicating the issue, however, is the fact that in many cases, the remedies for addressing risk are ambiguous or ill-defined.

One specific category of risk where concrete and accessible set solutions are available is the area of price risk. Price risk could pertain to an interest rate exposure (i.e., the price of money), currency exchange rate risk, or the risk associated with prices of critical inputs or outputs. In the vast amount of cases where companies face such risks, they have access to related derivative markets, where those derivatives can serve as hedging vehicles – contracts entered into with the objective of mitigating or eliminating pre-existing price exposures.

As with any risk, recognizing it's mere existence doesn't necessarily translate to mandatorily hedging it. When, then, should a recognized price exposure be hedged? Clearly, different organizations will approach this question with different orientations; but generally, it makes sense to consider hedging (or to consider increasing hedge coverage) as the prospect of an adverse price change seems more pressing. That is, the higher the likelihood of an adverse price move, the greater the justification for hedging. This orientation, however, has two critical shortcomings:

1. It presumes that we can successfully evaluate and calibrate the probabilities related to adverse price changes; and
2. It ignores the fact that, in some cases, hedges may end up imposing costs that are comparable to or even larger than the impacts of the anticipated adverse price movements.

The confidence with which we can accurately assess probabilities of adverse price movements varies both from market to market and from time to time. Consider short-term interest rates in the current environment. Due in large part to the Fed's quantitative easing, as of the time of this writing, these interest rates have fallen to historical lows. There's little disagreement, however, that these rates will move higher. We just don't know when. Contrast this assessment for one that we might make, say, in connection with the EURUSD exchange rate. Exchange rates for the major currencies are notoriously fickle. While these rates can exhibit extended trends, they also tend to post dramatic short term adjustments. When the words "confidence" and "forecast" come in the same sentence in connection with currency exchange rates, I advise humility.

In the face of these uncertainties, many managers might want to base their decisions about when to hedge on consensus forecasts of market expectations; and, in many cases, we can appeal to futures markets for this purpose. For instance Eurodollar futures reflect a market consensus as to where three-month LIBOR will be in the future, for a horizon of the next 10 years. Similarly, you can look at a host of commodity futures prices to get a perspective on the consensus forecasts for these prices, a well. Horizons covered by futures contracts will vary, market by market.

Critically, not all futures prices – or forward prices – are determined on the basis of consensus expectations. Some are determined as a consequence of arbitrage. Currency futures (forwards), for instance, reflect something called covered interest arbitrage. That is, rather than reflecting a consensus forecast for currency exchange rates, these forward prices reflect the relationship of the underlying interest rates in the two currencies relevant to the exchange rate in question.

For example, the three month forward (futures) exchange rate for EURUSD depends on the spot exchange rate and three month deposit rates for dollars and Euros, respectively. Precious metal forwards also depend on an arbitrage activity – this time, the cash-and-carry arbitrage. For precious metals, like with currencies, the resulting forward or futures prices should not be considered to be a consensus forecast.

Irrespective of whether forward prices are determined by expectations or by arbitrage, they are what they are; and the hedger is effectively confronted with the choice of trading a derivative contract at its current market price (reflecting current forward prices), or not. And this realization brings us back to the second point, above: In some cases, entering into the derivative reflects a cost that may be large, relative to the anticipated adverse move.

It should also be stressed that a cost for one kind of exposure might be a benefit for another. For example, the baking company that's buying grain would see higher forward prices as a cost of hedging; the farmer selling grain, on the other hand, would find that same higher forward price to be a benefit rather than a cost. The pricing of associated derivatives would impose a disincentive to hedge for the baker, but an incentive to hedge for the farmer.

Consider the case of the company with bank debt tied to three-month LIBOR, facing the risk of rising LIBOR over some prospective hedge horizon. Most likely, an interest rate swap (paying fixed / receiving variable) would be the first hedging instrument that would be considered for addressing this risk. Even a strongly held expectation that LIBOR was poised to move higher wouldn't be sufficient justification to put on the derivative position, in and of itself. Price matters: If the fixed rate on the swap is comparable to the current LIBOR (or even lower), the decision to hedge would seem to be justified; but the higher that fixed rate, the greater the disincentive to hedge. Put another way, at some critical fixed rate for new swaps (or higher), the hedge would lock in an unpalatable price, where the company would (appropriately) pass on hedging and, instead, opt to bear the interest rate exposure.

Hedgers also have to have a clear understanding of what the hedge should deliver. For swap hedges (or futures hedges) used in connection with uncertain prices, the hedge serves as a price fixing mechanism. The question thus is whether the price that the derivative allows the hedger to lock in is sufficiently attractive, relative the possible outcome that would otherwise arise if the exposure went unhedged. In contrast, caps and floors (or option hedges), protect against adverse price moves, allowing for the prospect of enjoying the outcome if prices happen to move beneficially, rather than adversely. This asymmetric payoff, however, comes at the expense of an upfront cost for protection (i.e., the price paid for the derivative). The critical question in this instance is whether the cost for the protection is better or worse than the result of living with an unhedged exposure.

Particularly with derivatives that have their respective forward prices determined on the basis of consensus expectations, it's critical to get ahead of the curve (so to speak). That is, you don't want to start hedging after the consensus forecast fully reflects the adverse price change that you're facing. Look, for example, at the interest rate swap market in the early May of 2013. At that time the fixed rate on a five-year interest rate swap was in the range of 0.80 percent. Within two months, it was almost double that, as, presumably, the threat of interest rates going higher became more immediate. Even at the seemingly elevated fixed rates, it might still have been attractive to enter into a hedge if (a) the consequence of not hedging fostered the expectation of even higher interest expenses, or (b) you simply wanted to eliminate the prospect for such an outcome. But clearly, the delay in implementation fostered an avoidable cost.

Finally, a corollary of the question of when to hedge is the flip side: When not to hedge. All too often, companies exert considerable effort and attention to the first question (when to start a hedge) but little or no attention to the second (when to terminate it). Large numbers of hedgers put on their hedging positions and simply hold them through their natural expirations. Such an asymmetric approach to using derivatives is intellectually unappealing. If we can appreciate the rationale of increasing our hedges in the face of higher a probability of an adverse price change, we should be able to appreciate the consistency of decreasing hedge coverage when the prospect for a beneficial price move gains greater strength.

Some might suggest that we'd be opening the door to using derivatives for speculative purposes under the guise of hedging by introducing this symmetry in the way we enter and exit hedging transactions. I believe, however, that this concern is a red herring. We can protect against the speculative use of derivatives by operating under the dictates of a disciplined risk management policy that allows for the consideration of changing economic conditions and changing risk tolerances. When hedge adjustments can credibly be attributed to such considerations, the charge of speculation would be off the mark. The control mechanism is documentation of rationales for adjustments on a timely basis, which, generally shouldn't be an onerous requirement.

Price risk may be the facet of risk that best lends itself to a disciplined solution. There's no getting around judgment or analysis, but, at least in this area of risk, we can institute strategies that that will reliably constrain our outcomes in predictable ways. Here's where risk management should start!

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