Cover story originally published in the April 25, 2005 issue of *The Ux Weekly*.

April 25, 2005
Volume 19
Issue 17

A weekly publication of UxC

Risk Asymmetry and Market Behavior

On our editorial calendar for this week we planned the first of two articles on bullish and bearish arguments for future movements in the uranium price. However, once we thought about it, we realized that this space could be better occupied by another topic. This does not mean that we couldn't come up with bearish arguments; it is just that we are at a stage where it is not even a close call if one has to pick between price going up or going down.

This decision was crystallized by the nature of questions that we have been asked recently. One question is what could happen to push price down. Aside from the possibility of a reactor accident, this is a difficult question to answer. Another question that we have been asked is what steps can be taken to help shore up supply over the next five to ten years. This is also a very difficult question to answer.

These questions lead us directly to the subject of risk and how it is currently being addressed in the market. There is now more risk that price will increase than decline, and an additional element of risk is whether

Price Risk and Long-Term Contracts - This time last year the long-term and spot prices were about in equilibrium, although both prices had been under upward pressure for some time. Several months later, the long-term price was several dollars higher than the spot price. This change reflected growing concern about the availability of supplies out in the 2006 and later timeframe, and utilities were willing to pay a risk premium that was higher than the $1-$2 historical risk premium that the long-term price commanded over the spot price to lock in future supplies. Producers were also able to reduce or eliminate the quantity flexibilities in long-term contracts and eliminate options, shifting more risk about future market developments away from themselves onto buyers.

Of course, the classic way of dealing with price risk is through market price contracts. Typically, price is allowed to fluctuate between a floor and ceiling price, which locks in the downside and upside of the price paid under the contract. (These are known as limited price risk contracts.) Traditionally, the

Perhaps the most revealing aspect of how the allocation of price risk has evolved is the treatment of ceiling prices. Quoted ceiling prices have gone from $30 to $40 and higher and in some cases ceilings have been eliminated altogether. This demonstrates a type of price risk asymmetry in that the opportunity for the contract price to go much higher than its present level is much higher than its opportunity to go lower (if it has any opportunity to go lower).

Supply Risk - You may ask the question why a utility would sign a contract with a high ceiling price or no ceiling price. The answer is that, unlike producers, utilities must contend with supply risk as well as price risk (this is another type of risk asymmetry). In this context, although signing a market price contract with no ceiling means that a utility is taking on all of the price risk, the utility is at least addressing the issue of supply risk.

In recent weeks, we have also heard more about utilities grading producers in terms of supply risk. We have heard rankings such as A, A-, etc., and terms such as "top tier" and "just sufficient supplies will be available in the future. This risk is reflected in market behavior, particularly in contracting for long-term supplies, and it is instructive to trace how the allocation of risk has evolved.

price referenced as the market price has been the spot price, and usually at a discount. At times when spot supplies were plentiful, long-term contracts had no floor prices, but suppliers had the opportunity of not delivering if price fell below a specified level.

The recent changes in market price contracting are especially revealing when it comes to the issue of price risk. Producers have been able to get floor prices that are higher than spot prices at the time the contract was signed. Discounts off of the spot price have disappeared. Indeed, producers have been able to command premiums over the spot price to the extent that they have signed contracts that reference long-term prices instead of the spot price.

below top tier" applied to producers. Some utilities are compensating for this greater supply risk by holding more inventory. In this respect, it would seem that somehow the relative amount of supply risk associated with a particular producer should be translated into the price paid to that producer due to the costs associated with holding inventory.

There is also clearly an increasing concern about supply diversification, another way of addressing supply risk. However, there are not a lot of producers with which to diversify supply, especially in the out years, and this has added to the worries on the part of some utilities about supply risk.

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