



## Cause and Effect

The following cover comes from the essay of our recently-issued Uranium Market Outlook report that looks at the evolution of uranium pricing information. This particular piece relates to the role that financial interest in uranium has played in generating additional price information as well as contributing to the price volatility that the market has experienced in recent years.

We have seen that price volatility has increased with the entry of financial players (hedge funds, banks, and other companies that are not users or producers of uranium) into the market. For this reason, a subset of market participants sees the entry of these purely financial players as being disruptive to the market. While there is no doubt that financial players have added to the volatility of the market, they did not necessarily precipitate the volatility and can perform functions that serve to reduce future price volatility.

The first hedge fund entered the uranium market in late 2004. By this time, the spot price had essentially doubled from its level a year before (increasing from \$10 to \$20) and many thought it was poised to increase further. This hedge fund was playing the China card, betting that China would go into nuclear in a big way. This bet proved to be correct, as China did greatly accelerate its nuclear power program. It is unlikely that hedge funds or any other financial players would be interested in the uranium market if this price volatility (and prospects for additional volatility) never existed.

In addition, we would argue that prices needed to be bid up to stimulate additional production following a long period of an inventory-driven market that had dampened prices and producers' enthusiasm for further investment. In fact, we argued this point in a number of cover stories during the first half of the past decade. Before the entry of the financial players, the market was not set up for speculation about the then-pending undersupply of uranium.

There were a number of outcomes stemming from this financial interest, including contributing to the spike in price, the creation of investment funds that gave smaller investors exposure to uranium, the uranium futures market, and the entry of commodity-style brokers that offered a wider array of products than had previously been available in the uranium market.

The uranium futures market was instituted largely at the request of financial players who sought to both hedge risk (hedge their positions) and take on risk by trying to capitalize on the expected rise or decline of spot uranium prices. Although primary market participants (producers, utilities, and long-established trading companies) currently utilize the futures market, they were not the first to seek it out.

While all market players may not be in favor of these developments, it is hard to argue that these have not greatly increased price transparency as considerable additional price information became available to the market. For instance, the commodity-style brokers provide for a daily rendering of the spot price through their continuous posting of bids and offers, and thus have made the publication of the BAP possible and provided much more insight to price movements. They have also provided other information, both on uranium prices as well as conversion, UF<sub>6</sub>, enrichment, and EUP prices, and offer a wide variety of products (e.g., sourcing, forwards, options) to aid procurement and address price risk.

We would also argue that involvement of financial players and the availability of this additional price information make it is less likely that the uranium market will encounter a gross undersupply situation such as was confronted early in the last decade before the largely fortuitous increase in Kazakh production. The gap between the spot and long-term price creates arbitrage opportunities where material can be purchased on the spot market and financed for future delivery under medium-term contracts. Not surprisingly, financial companies are in the best position to perform this arbitrage and fill this "gap" in the market. Much of the recent spot buying is associated with this type of carry trade activity, as there are little near-term unfilled requirements on the part of utilities.

Without this type of buying, it is almost certain that the spot price would be lower than it is today, perhaps much lower, and thus the gap between the spot and long-term price would be even greater. This type of situation could serve to stymie long-term contracting at base-escalated prices (and thus reduce overall long-term contracting as well as production expansion) as utilities would loathe entering into long-term contracts at prices that were at a large premium to existing spot prices. Of course, this is the situation that existed during the first part of the last decade when spot prices were well below those needed to stimulate additional production. Production contracted as a result, setting up the explosion in price that took place in the middle of the decade.

Financial players thus bring an element of risk-taking and financing that is useful to the market, both in terms of stimulating supply and creating additional price data. A byproduct of this is additional volatility, which can be observed simply by comparing prices before and after 2004. However, a non-volatile price market is not necessarily desirable, especially in a market characterized by significant uncertainty about its future course. This was proven last decade when flat prices suggested supply certainty but almost created a potentially devastating undersupply situation. And, following the Fukushima accident, considerable uncertainty still resides in the uranium market and some volatility is to be expected, if not welcomed.

#### UxC Broker Average Price Update

We would like to welcome the uranium desk from Armajaro Securities as a contributing broker to the UxC BAP. The individuals on this desk are the ones who participated in the UxC BAP when they were at MF Global, which is no longer operating having gone into bankruptcy. While Armajaro does have an agricultural commodity trading arm, the uranium desk falls under its securities division, which is involved exclusively in brokerage.

We would also like to express our gratitude for the continuing support of Evolution Markets to the UxC BAP, especially during this transition period. As noted in the cover, we believe the prices and services provided by these companies are beneficial to the smooth running of the market, and we are pleased to cooperate with them to provide additional price data and clarity.

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