Interview with Dr. Christian Schärer -

Manager of the Uranium Resources Fund and Partner of Incrementum

Uranium ETFs and uranium companies drive spot price up + Sprott gets in on the action

Only recently have several other strong market players joined the fray, now securing U_oO_o on the spot market at a small price. mostly from mines where uranium is a by-product. In addition to Cameco, which is now a buyer, Uranium Participation Corp. and Yellow Cake Plc. were also able to purchase larger quantities of uranium. Yellow Cake used its US\$200 million IPO proceeds to buy 8.4 million pounds of U_oO_o from Kazatomprom with an option to buy uranium for 9 years for an additional US\$100 million per year. This takes immense pressure off the uranium spot price and also builds pressure on utilities to renew their expiring contracts. Furthermore, uranium companies such as Uranium Energy, Denison Mines and Boss Energy also bought physical uranium in order to be able to act flexibly and fulfill supply contracts in the event of an early production

start-up. The news that Sprott Asset Management took over Uranium Participation and thus formed the Sprott Physical Uranium Trust also attracted attention.

The best uranium stocks promise multiplication potential!

We have taken the current situation of a uranium spot price that is far too low and does not reflect reality, plus the massive supply deficit that is expected in the future, as an opportunity to provide you with a compact summary of promising uranium shares. In doing so, we focus primarily on development companies with extremely promising projects, as these also offer a high takeover opportunity in addition to the actual appreciation due to a higher uranium spot price in this context.



(Source: rawnixel)

Dr. Schärer, over the last few months, a twotrack market development can be observed on the uranium market. While there has been little price movement in the physical uranium market, uranium shares have risen quite dynamically. What are the reasons for this differentiated market recovery?

I see the significantly improved investor sentiment and the sector-specific market structure as the main drivers behind the good performance of uranium stocks. Commodity stocks have generally benefited from portfolio shifts due to an improved economic outlook. This has also helped uranium stocks. In addition, the perception of nuclear power has changed as part of the global climate debate. According to the goals of the Paris Climate Agreement, energy supply in the future should be based less on fossil fuels. Alternative energies (wind, solar, hydropower) are to be expanded accordingly. In order to compensate for the unavoidable fluctuations in the production of alternative energy sources and to stabilize the power grids, reliable power generation (24/7) from non-fossil sources will also be needed in the future. Against this background, nuclear power is increasingly seen as a valid source that provides the base load for the power grid. Because nuclear power is produced with low CO_o emissions, nuclear power plants are a possible component of the "New Green Deal" for the Biden administration. In addition, an EU expert report has also recently given nuclear power a green label. Accordingly, the acceptance of the investment topic "uranium" is increasing among investors. Last but not least, the current market structures have ensured that this interest has fallen on "fertile ground". Despite the recent price increases, the aggregate market capitalization of shares from the uranium sector remains marginal. This is illustrated by the following comparison: Elon Musk's fortune amounts to around USD 170 billion. However, the market value of the weightiest uranium share (Cameco) is only around USD 7 billion. Against this background, even small capital allocations by institutional investors

leave clear traces in the price development of uranium shares. Accordingly, the medium-term prospects remain positive against the background of further improving fundamental data.

In contrast, the physical uranium market has been rather subdued recently. We recall that the uranium sector went through a lean period for five years after the Fukushima nuclear accident. This ended with the temporary low of the uranium spot price at the end of 2016. Since then, the uranium spot price in particular has been able to rise again somewhat. However, the physical uranium market does not yet seem to be out of the valley of tears. Why is that?

It is indeed worth taking a closer look at the market development since the reactor accident in Fukushima. Only in this way can we understand how the uranium market has moved into the current attractive starting position as part of a shakeout process that has lasted several years. For the uranium sector, the Fukushima nuclear accident was a game-changing event that unbalanced the market. At the time, Japan had 54 reactors online, produced nearly 30 percent of its electricity from nuclear power plants, and generated about 1/8th of the world's demand for uranium. In addition. power plant operators had significant uranium stockpiles to guarantee security of supply. Following the incident, the entire reactor fleet was taken offline. About 1/4 of these reactors were permanently shut down. The remaining plants were subjected to a tough safety check and some had to be extensively retrofitted. Accordingly, the restart of the Japanese reactor fleet is taking significantly longer and has brought fewer reactors back online than originally expected. As a consequence, demand for uranium was significantly lower.

Against this background, it would be expected that uranium production would be significantly reduced due to the slump in demand, thus bringing the market back into balance.



Dr. Christian Schärer is a partner at Incrementum AG, responsible for special mandates. During his studies he started to search for the strategic success factors of successful business models. A topic that still fascinates him today and inspires him in the selection of promising investment opportunities. He studied business administration at the University of Zurich and earned his doctorate while working at the Banking Institute Zurich with an analytical study on the investment strategy of Swiss pension funds in the real estate sector. He has acquired comprehensive financial market knowledge in various functions as investment advisor, broker and portfolio manager. Since the summer of 2004. Schärer has been focusing on various investment themes with a tangible asset character as an entrepreneur, consultant and portfolio manager. He also brings his practice-oriented financial market knowledge to companies as a member of the board of directors. He is married and father of a son. In his free time. he enjoys cooking for friends and family, hiking in the Ticino mountains or reading the biography of a fascinating personality.





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But this has not happened. On the contrary. Production was even expanded under the leadership of the two sector heavyweights "Kazatomprom" and "Cameco". From an economic point of view, 3 factors have supported this behavior. On the one hand, "Kazatomprom" has consistently exploited its relative cost advantages due to its "in-situ production method" and its production location in Kazakhstan. With its low-cost base behind it, the company has risen to become the market leader (40% market share) in global uranium production. On the other hand, thanks to their full order books with long-term supply contracts on good terms, the other producers were able to largely escape the price pressure of the market in the early years. The market imbalances therefore did not diminish in the period from 2011 to 2016, but actually increased. The need for adjustment was all the greater as a result.

In this context, it is also important to understand that uranium demand by power plant operators is hardly price sensitive. This is because the total production costs of nuclear power are only marginally dependent on the level of fuel costs (uranium price). The most important cost block in the operation of a nuclear power plant is the capital costs (capi-

talized construction costs, which are depreciated over the entire operating life). Thus, the cost structure of a nuclear power plant differs significantly from that of fossil-fired power plants (high share of fuel costs in total production costs). This cost structure shapes the inventory cycle or purchasing behavior of nuclear power plant operators. It is not the absolute level of the uranium price that primarily drives uranium demand, but rather security of supply considerations. Anyone who invests billions in the construction of a nuclear power plant also wants to be able to operate it! From this point of view, the behavior of the power plant operators is not surprising: good availability and low price of uranium do not lead to an increase in stockpiles, but to their reduction. This put additional pressure on the market

In 2016, the turnaround on the uranium market was triggered by the realization that economic realities can be ignored but never permanently overridden. The full order books of uranium producers with their guaranteed purchase volumes and prices fixed at a high level had in the meantime been largely worked off. Continuing to produce and sell uranium on the spot market at prices that did not cover costs was not an economically viable prospect in the long term. From a business perspective, it made more sense to leave the uranium unmined in the ground and wait for better times. Accordingly, obligations under existing supply contracts were increasingly covered by purchases on the spot market. In addition, Kazakhstan also realized that its dominant market position was not earning enough on the bottom line due to the low prices realized. This laid the foundation for a shakeout on the supply side. As a result of initial production cuts, the uranium price entered a bottoming-out phase after years of price correction.

Since 2017, several major uranium producers have closed mines, reducing supply. The Corona pandemic again led to mine closures or lower production volumes, especially in mines where uranium is a by-product and ends up on the spot market.

To what extent will this supply shortage lead to an improvement in the current situation of the uranium sector?

In this context, it is important to distinguish between strategic and cyclical market developments. The Corona-related production cuts have relieved the market in the short term as part of a cyclical fluctuation and supported the spot price. This was because, due to interruptions in production, renowned producers were no longer able to cover their delivery obligations from their own uranium production, but only with purchases on the spot market. This was a welcome contribution to the desired stabilization of the market. However, these capacities will sooner or later find their way back into the market, as the example of Cameco's "Cigar Lake" mine has recently shown. This also applies in particular to producers where uranium is a by-product of the production process.

More important for the further development of the uranium price, however, are the changes at the strategic level. Under the leadership of the two heavyweights "Kazatomprom" and "Cameco", the supply side has attempted to lead the uranium market back to a new equilibrium over the past four years with significant production cuts. We are seeing previously unknown supply side discipline in the market. As a result, global mine production is likely to have reduced by around a quarter compared to 2016.

These production cuts reflect nothing more than the recognition of economic realities by uranium producers. From the mine operators' point of view, the ratio of the production costs of their existing capacities (ASIC – All In Sustaining Costs) to the spot price is relevant. If these costs are higher than the selling price realized on the spot and forward markets, then uranium production makes no sense from a strategic point of view.

In the current environment, the economic reality for uranium producers is as follows: Both spot and forward prices are hovering around USD 30 per pound. Global demand is approximately 180 million pounds. In total, around

125 million pounds were probably produced last year. The market is accordingly in deficit and the resulting supply gap is being met from non-strategic stocks as well as from secondary sources. This is a development which, in view of the declining stockpiles, does not appear to be sustainable and is likely to be accentuated in the coming years due to the economic realities (ASIC) on the part of the mine operators. This is because less than 100 million pounds of current production is mined at a maximum cost (ASIC) of USD 30 per pound. Consequently, a good 30% of the current production is not cost covering from an economic point of view and thus not sustainable! Consequently, the accentuating supply gap can only be closed by significantly higher uranium prices. Prices of at least USD 50 per pound are needed to bring production capacities that have already been shut down (in care and maintenance status) back into operation. For new mining projects to be realized, uranium prices need to be sustainably established above the USD 60 mark. It must be taken into account that even the "only" decommissioned capacities are not available again at the push of a button. Recommissioning takes time and costs money. Not to speak of the realization time of new mining projects...

Until now, we have focused our discussion exclusively on the supply side of the uranium market, which is under pressure. However, the demand side is also on the move. It is worth noting that, despite the nuclear phase-out in the German-speaking world (Germany, Switzerland), global electricity production from nuclear power plants has again surpassed the old highs from before the events in Fukushima. In particular, the expansion of reactor fleets in China, India, the Middle East or Russia is leading to a net growth in demand of around +2% p.a. despite various reactor shutdowns in the Western industrialized countries. As already noted in the introduction, this expansion of nuclear power is driven by the steadily increasing demand for low-CO, base load in the power grids. Nuclear power plants produce in a 24/7 rhythm and help to balance the large production fluctuations of wind and solar plants and thus stabi-





lize the power grids. In addition, nuclear power is a welcome trump card in the fight against air pollution as well as import dependence in fossil fuels. What also strikes me as remarkable is the fact that this growth is characterized by high visibility. Nuclear power plants do not appear or disappear overnight. Planning and construction cost a lot and take a long time. But once a reactor is up and running, operators aim for high utilization of production capacity over its entire 40-plus-year life, if possible. This transparency of demand development clearly distinguishes the uranium market from the cyclically sensitive commodity markets in the base metals or energy sectors.

In summary, looking at the current constellation on the uranium market, we note that, on balance, a further expanding supply gap is emerging. Around 30% of current uranium production is unsustainable from an economic point of view. At the same time, the demand side is growing at around 2% p.a. The supply gap (demand > mine production) will consequently widen. So far, the deficit has been covered by reducing non-strategic stock positions and from secondary sources. However, destocking is likely to soon reach its limits in view of the security of supply sought by power plant operators. The conclusion from my point of view is clear: the risk on the uranium market is about to move from the supply to the demand side. The demand side will become the catalyst for a significant price increase with the start of the new inventory cycle. This is the only way to close the growing supply gap.

This year we have observed a new phenomenon on the uranium market. In addition to the two holding companies, Yellow Cake" and "Uranium Royalty", non-producing companies (as yet) have also appeared as buyers on the uranium spot market. How do you interpret this development?

These purchases of physical uranium on the spot market by "Uranium Energy", "Denison Mines" and "Boss Energy" are indeed remarkable. They have occurred, in my opinion, for 3 reasons. First, they reflect the positive mar-

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ket assessment by the decision makers involved. They obviously assume that the shakeout on the spot market due to destocking is already well advanced and accordingly a price recovery is foreseeable soon. Secondly, these purchases show that refinancing opportunities on the uranium market have improved significantly as a result of the rise in share prices. The capital increases required for this are also easier to justify to shareholders because of the lower dilution. And thirdly, these purchases give companies more room for maneuver. With the physical uranium stocks in hand, it is also easier to conduct credible negotiations on long-term supply contracts with potential buyers and financing

The U.S. in particular is working to get its uranium industry going again. How do they plan to achieve this?

The background for the various initiatives and proposals to support domestic uranium producers is the fact that U.S. nuclear power plants provide about 20% of the nation's electricity production. However, due to low uranium prices, uranium production from domestic mines has collapsed in recent years and almost all of the uranium needed for production

must be imported. However, a good 40% of these imports come from countries that are considered politically untrustworthy from a U.S. perspective or are outside the U.S. sphere of influence. This brings the issue of supply security into focus. Accordingly, the U.S. Department of Commerce has developed various recommendations for action based on a study of supply security. Common to all is the intention to incentivize and support uranium production from domestic sources.

In the latest budget proposal of the US government, the proposal to build up a strategic uranium reserve was included. Up to USD 1.5 billion is to be made available for this purpose over the next 10 years. However, much is still unclear with regard to implementation. Moreover, the deal is only a proposal within the current budget process, and it still has to be approved by the parliament. It is also unclear whether the next administration will continue to support the project. It is also not settled at what price the uranium will be purchased. At a fixed price that covers production costs. Or at the current spot price? Depending on the definition of the purchase price, there are different volumes that could be acquired with the said US\$1.5 billion. It also remains unclear from whom to buy. However, the non-existing domestic production capacity is precisely the origin of the initiative. So, a lot of things have not been thought through yet. But the impetus has been set.

You are the manager of the Uranium Resources Fund (ISIN LI0224072749) of LLB Fundservices AG in Liechtenstein. What strategy are you pursuing and what does the fund actually represent?

An investment in our Fund is a focused bet on the widening supply gap in the uranium market. Despite the recent price rises, investors with a medium-term investment horizon can expect an attractive return potential, although this is also subject to corresponding risks. The Fund is therefore suitable as a supplementary component in a diversified portfolio and not as a basic investment. The Uranium Resources Fund holds around 30 positions in

the portfolio. This diversification makes sense against the background of the current state of the uranium market.

What selection criteria do you use when choosing fund stocks, and what are your current top performers?

Although the price recovery on the physical uranium markets has been hesitant so far, we are convinced on the basis of the fundamental starting position that the uranium market will make the sustained upward turn in view of the growing supply gap. However, interim setbacks and high volatility remain a feature of this tight market. The still young bull market in uranium stocks will open up large profit opportunities. We want to consistently exploit these while accepting controlled risks!

Against this background, our portfolio stands on four pillars. The first pillar is our strategic liquidity ratio. This ensures our ability to act at any time. In this way, we take advantage of attractive entry points that regularly open up due to the volatile price performance of many uranium shares.

With the second pillar, we want to participate directly in an improvement in the uranium spot price. Without higher uranium prices, a sustainable recovery of uranium producers is difficult to imagine. That is why two investment companies, which have invested their funds mainly in physical uranium, form the core of the portfolio. If our view is correct, the supply gap in the uranium market will be closed via a rising uranium price. .. Uranium Participation" and "Yellow Cake Plc." should accordingly be the first and most immediate beneficiaries of this price recovery. We have added to this group with a position in Uranium Royalty Corp. The company adapts the "streaming and royalties" business model, which has been successful mainly in the precious metals environment, to the uranium market. The company finances uranium mines and in return secures a share in current or future production. However, this is done without taking on the risks associated with operating a mine.



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The third pillar focuses on the shares of uranium producers or standby producers with approved and/or realized projects that are not currently in production. When uranium prices start to rise, the producers who can place significant uranium production on the market will benefit. Only those who produce can also deliver. To be on the safe side, we focus on companies that have low production costs on the one hand and a good order book of longterm supply contracts on the other. Significantly represented in the portfolio are the two industry leaders "Cameco" and "Kazatomprom". Both companies have a broad portfolio of first-class production sites. Despite the challenging environment, both companies are cash flow positive and pay a decent dividend. This group is complemented by investments in companies to which we would give the status of "standby producer". These are companies that have a portfolio of approved production facilities and processing capacity. Production could be launched within a foreseeable period of time as soon as the economic conditions (i.e., a higher uranium price) are met. We include "Uranium Energy" or "Energy Fuels" in this group, for example.

Under the fourth pillar, we focus on explorers and developers that are advancing world-class development and mining projects. These are particularly interesting if they can start their production in the time window of the expected supply gap. They will then be able to benefit from correspondingly attractive sales prices. In addition, these assets should have the necessary size to also qualify as takeover targets. After all, we assume that a wave of consolidation will take place on the

uranium market once the price turnaround has occurred and that mining companies from outside the sector may also want to position themselves in the uranium business. This would make sense not least because of the low cyclical sensitivity and the comparatively high visibility of uranium demand. For example, the companies "Denison Mines" or "Boss Resources" can be assigned to this group.

What advice do you have for investors interested in investing in the uranium sector?

The supply gap outlined above and the associated potential for rising uranium prices are still only foreseeable, and the expected turnaround on the physical uranium market is still a long time coming despite the good fundamental prospects. If, contrary to expectations, the current bottoming phase continues for a longer period, the air will quickly become thin for some uranium producers. Their balance sheets have been eroded by the continuing collapse in prices and their cost-cutting potential has already been largely exhausted. The environment also remains challenging for developers of new uranium projects, as their projects will only become economically viable and therefore feasible as uranium prices rise. Accordingly, it is difficult to find investors to finance the next project stages. Anyone who puts all their eggs in one basket in this constellation is playing for high stakes - possibly even too high. The use of a fund that invests in a diversified manner within the theme seems reasonable to me. In addition, we recommend a staggered build-up of positions.

Interview with Scott Melbye

Executive Vice President of Uranium Energy,
Commercial V.P. of Uranium Participation Corp. and
Ex-Advisor to the CEO of Kazatomprom

Mr. Melbye, you have held and continue to hold senior positions with a variety of uranium companies and are considered one of the world's most respected uranium experts. Can you give our readers a brief overview of your career to date?

Thank you, it is a pleasure to share my observations and insights into the global uranium market with your readers. I have been fortunate to spend my entire 36-year career in the uranium and nuclear energy industries. Starting out as a nuclear fuel broker with Nukem in New York on 1984, and later being responsible for uranium fuel procurement at the three-unit Palo Verde Nuclear Generating Station in Arizona, really prepared me for the bulk of my career in uranium mining. In addition to 23 years with leading producer, Cameco, most recently as President of their global uranium marketing subsidiary, I also held leadership roles at Russian-owned. Uranium One and Kazakhstan's State uranium company, Kazatomprom, I have also had the opportunity to manage the physical uranium activities of Uranium Participation Corp. Since 2014, I have served as Executive Vice President of U.S. uranium developer and producer. Uranium Energy Corp., and more recently assumed the CEO role at Uranium Royalty Corp. which launched as a public company in December 2019.

The uranium spot price has been in a bearish phase for about 5 years and has not yet been able to recover significantly from its low in 2016, until very recently. What are the main reasons for this development?

While we are very encouraged by the recent improvements in the uranium spot market (up 63% from 2016 lows), it has indeed been a frustratingly slow recovery with prices moving sideways or rallying temporarily, only to fall back to previous levels. With the benefit of hindsight, we can now see that 2016 was a pivotal year for uranium fundamentals. As a result of Fukushima market impacts, the uranium fundamentals.

nium price fell from a ten-vear high of US\$70 per pound in early 2011 to a cycle low of US\$17.75 per pound in November 2016. Today, uranium prices have been fluctuating above and below \$30 per pound. In the face of falling prices over the past decade, global uranium production counter-intuitively grew. year-over-year, and finally peaked in 2016 at 162 million pounds. This speaks to the relative inefficient nature of the uranium market compared to other mineral commodities like copper, gold or silver. In those commodities, price signals usually manifest in adjustments to supply much more rapidly, in real time, as selling prices are more reliant on spot price indexing. In the case of uranium, the prevalence of hedged, long-term contracts at higher-priced, base-escalated terms insulated many producers from the lower spot prices. However, by the end of 2016 we began to see the rapid drop off of that long-term contractual coverage that was secured in the previous cycle, hence (finally) exposing producers to the depressed market conditions. The uranium market has, as a result, seen a steady drop in global uranium production from 2017 to the present. This has been a key supply development as it finally allows the critical drawdown of excess inventories over-hanging the market. These supply cuts have created a gap in 2021 between annual production (likely around 127 million pounds in 2021) and consumption (about 175 million pounds) of about 47 million pounds U₂O₂. In 2020 this gap was widened by reductions in mine supply to about 57 million pounds due to the Coronavirus pandemic which we will discuss in more detail.

With regards to the demand side during this period we also witnessed the closure of Japanese reactors (both temporary and permanent), and the gradual phase-out of German reactors in response to Fukushima. However, after a period of safety re-assessments and plant upgrades, we experienced a resumption of nuclear plant construction globally which remarkably returned global nuclear generation to pre-Fukushima levels in 2019.



Scott Melbye is a 35-year veteran of the nuclear energy industry having held leadership positions in major uranium mining companies as well as industry-wide organizations. Through to June 2014, Melbye was Executive Vice President, Marketing, for Uranium One, responsible for global uranium sales activities. Prior to this, Melbye spent 22 years with the Cameco Group of companies, both in the Saskatoon head office and with their U.S. subsidiaries. He had last served as President of Cameco Inc., the subsidiary responsible for marketing and trading activities with annual sales exceeding 30 million pounds U₀O₀. Melbye was formerly the Chair of the Board of Governors of the World Nuclear Fuel Market and President of the Uranium Producers of America. He also currently serves as Executive Vice President of Uranium Energy and VP-Commercial for Uranium Participation Corporation and was Advisor to the CFO of Kazatomprom, the world's largest uranium producer in Kazakhstan. Melbye received a Bachelor of Science in Business Administration with specialization in International Business from Arizona State University in 1984.