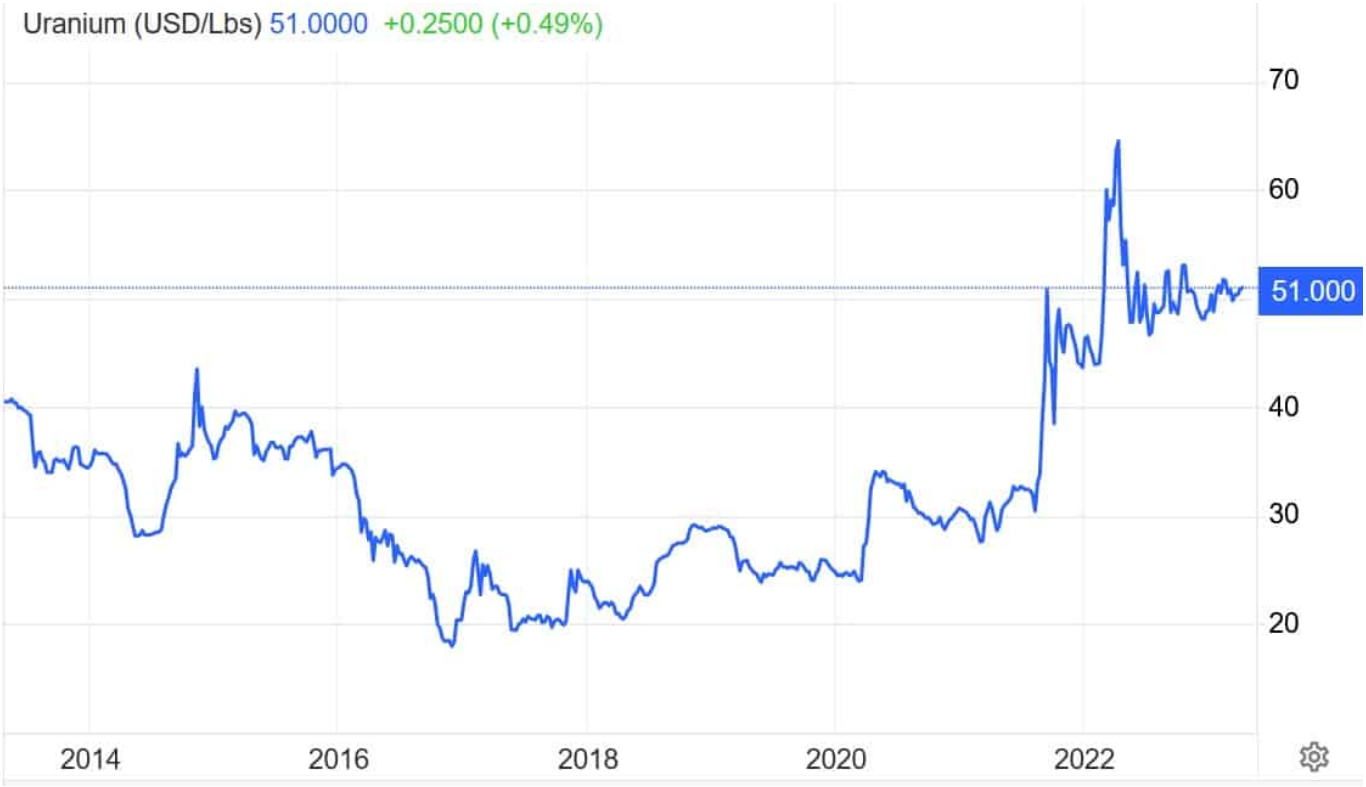
Investment Ideas as Uranium Rises, Deficits Loom & Countries Seek to Reduce Reliance on Russian Supply

written by Matt Bohlsen | April 19, 2023

The uranium spot price continues to trend higher leading investors to take a second look at the uranium ETFs and miners. Today we give a brief uranium market update and discuss some of the investment options to gain exposure to uranium.

Uranium spot price 10 year chart – Currently at US$51.00 (as of April 19, 2023)



Source: Trading Economics

Uranium market update

The uranium price has risen to a monthly high of US$51.00 per pound ("lbs") in April after starting the year below US$49.00/lbs.

The reason for the rise is stated as "…..*supply risks mounted and investors continued to assess demand projections worldwide*". One of the supply risks relates to major nuclear energy producers (US, France, Japan, UK, and Canada) who have agreed to form an alliance to leverage resources and jointly reduce reliance on Russian producers from the global uranium and nuclear market.

On April 17, 2023, the U.S Government Department of Energy issued a statement saying:

> *"**Statement on Civil Nuclear Fuel Cooperation Between the United States, Canada, France, Japan, and the United Kingdom**……In the June 2022 Group of Seven Leaders' Communique, our Leaders made clear our collective intent to reduce reliance on civil nuclear and related goods from Russia, including working to assist countries seeking to diversify their nuclear fuel supply chains. To this end, the United States, Canada, France, Japan, and the United Kingdom have identified potential areas of collaboration on nuclear fuels to support the stable supply of fuels for the operating reactor fleets of today, enable the development and deployment of fuels for the advanced reactors of tomorrow, and achieve reduced dependence on Russian supply chains…….Collaborating on strategic opportunities in uranium extraction, conversion, enrichment, and fabrication supports our collective climate, energy security, and economic resilience objectives. This multilateral cooperation would enable us to strengthen our domestic sectors and establish a level playing field to compete more effectively against*

> *predatory suppliers.“*

As reported by Trading Economics:

> *“The move is expected to add pressure to the capacity of Western uranium enrichers and converters as Russian enrichers supplied nearly 40% of the global market until the country invaded Ukraine. At the same time, Finland and Japan both announced the restart of key power plants, further adding to demand estimates for nuclear fuel. On the supply side, the world’s top producer Kazatomprom stated its output is set to fall this year due to continued delays of key materials.“*

All of this bodes well for non-Russian sources of uranium and potentially the uranium price if uranium supply deficits emerge.

This month also saw the end of Germany generating power from nuclear energy as it closed the last three operating reactors as part of a long-planned transition toward renewable energy. However, this should have minimal impact on the uranium price as, according to the World Nuclear Association, Germany required less than 1% of the overall world’s demand in 2022, and uranium demand is expected to increase with projections that power from nuclear generation will more than double from 2022 to 2050.

Investment options to gain exposure to uranium

Investors can consider investing in physical uranium, uranium producers, and/or junior exploration and development companies. Most of this investing can be done directly or via ETFs.

Uranium ETFs

The following ETFs can be considered:

- Sprott Physical Uranium Trust (TSX: U.UN | OTCQX: SRUUF): Exposure to physical uranium and hence the uranium price.
- Global X Uranium ETF (NYSE: URA): Exposure to a broad range of companies involved in uranium mining and the production of nuclear components. Cameco Corp. (TSX: CCO | NYSE: CCJ) has an approximately 25% weighting in the fund, followed next by Sprott Physical at approximately 9%.
- Sprott Uranium Miners ETF (NYSE: URNM): A good pure-play uranium miners ETF.
- Sprott Junior Uranium Miners ETF (NASDAQ: URNJ): Focuses on the uranium junior miners not yet in production.

All four of the above ETFs have merit depending on where an investor wants to focus. The advantage of an ETF is broad market exposure. Just be sure to monitor exposure to Russian or Kazakhstan stocks and mines that could potentially be negatively impacted by the move to wean off the Russian uranium supply. For example, the URA ETF has 7% exposure to Kazakhstan companies and 0% to Russia, so should be minimally impacted on the negative side.

Uranium stocks

The global leading uranium stock is Cameco Corp. (TSX: CCO | NYSE: CCJ). It is the world's largest publicly traded uranium company, based in Saskatoon, Saskatchewan, Canada.

Other top-tier uranium companies include BHP Group (ASX: BHP | NYSE: BHP), NexGen Energy Ltd. (TSX: NXE | ASX: NXG | NYSE: NXE), Uranium Energy Corp. (NYSE American: UEC), Energy Fuels Inc. (NYSE American: UUUU | TSX: EFR), and Ur-Energy Inc. (NYSE American: URG | TSX: URE).

Uranium junior miners include project generator F3 Uranium Corp. (TSXV: FUU | OTCQB: FUUFF), Western Uranium & Vanadium Corp.

(CSE: WUC | OTCQX: WSTRF), and Appia Rare Earths & Uranium Corp. (CSE: API | OTCQX: APAAF).

For great coverage of the uranium sector, investors can visit InvestorIntel.com's "Energy, Oil & Gas + Uranium" page.

Closing remarks

The recent move, led by the USA and backed by Canada, France, Japan, and the United Kingdom, is a significant move to diversify away from Russian-controlled uranium supply and nuclear-related goods. Only time will tell how successful it will be and it may also depend on the outcome of the war in Ukraine.

The West continues to ramp up moves to create new supply chains both in critical materials and now also in uranium. This can only be a plus for the uranium companies from the Western world and allied countries. Stay tuned.

Until we have fusion, there is Fission 3.0 for new uranium supply opportunities

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Geopolitics are currently front and center in the news stream. I won't even pretend to know what the true end game would be for Russia. It could be to annex more of Ukraine or perhaps even fully occupy the country. Putin is a very savvy and aggressive statesman, and I suspect there may well be a game within a game

within a game. We may never be made aware of what the final strategic outcome is, we will only ever hear what we are either allowed to or intended to hear from the various spin doctors on all sides. Whatever the outcome of this, and many other simmering political events, security of resource supply has to be a front and center part of your decision making as an investor.

This week we are going to talk about the uranium supply. Granted Russia only mines approximately 6% of global supply and Ukraine only produces a little over 1% of global supply, the implications for the uranium market could be a little more dynamic than the simple supply picture. If you recall a few weeks back there was plenty of political unrest in Kazakhstan, the largest global supplier of uranium at roughly 40%, and who was there to send in troops to help quell the protests and support the government – Russia. It's not a huge leap (at least in my opinion) to envision a scenario where Russia puts it's 100,000+ troops and the supplies it's been building up for over a year on the Ukraine border to use in some way. In turn that would likely lead to sanctions of various shapes and sizes that could very easily cause another level of back-and-forth brinksmanship, whereby Russia calls on its ally Kazakhstan to return a favor and make life difficult for the world's largest consumer of uranium – the United States.

Perhaps I have too much time on my hands to think about these kinds of things, or maybe I read too many novels with sensational plots. Nevertheless, one has to think that the largest consumer of uranium might be working on things in the background to secure supplies of this commodity from slightly more friendly allies. Especially given, according to the EIA, that in 2020 the U.S. purchased 22% of its uranium from Kazakhstan and 16% from Russia. So where better to support development and supply than your friendly neighbor to the North

that just happens to host the world's richest uranium play – the Athabasca Basin. I guess your own backyard would be another logical place but I'll save that for later in the week.

As an investor, it's likely the first place you'd look is the existing Athabasca producers like Cameco Corp. (TSX: CCO | NYSE: CCJ) and Denison Mines Corp. (TSX: DML | AMEX: DNN). But if you want real leverage to my potential escalation scenario, it's the junior names that could give you the big moves. At the top of my list for junior explorers in the Athabasca Basin is Fission 3.0 Corp. (TSXV: FUU | OTCQB: FISOF) a uranium project generator and exploration company that currently has 16 projects in the Athabasca Basin. This is the third generation Fission run by one of Canada's leading uranium exploration teams, which has already had success in the region including an asset sale to a major producer. The Company's management, headed up by Dev Randhawa as CEO & Chairman, is part of the team that founded Fission Energy Corp., which made the J-Zone high-grade discovery in the Athabasca Basin and built Fission into a TSX Venture 50 Company, which sold the majority of its assets to Denison Mines in April 2013. Fission Uranium Corp. (TSXV: FCU | OTCQX: FCUUF) was founded by the same team, including uranium expert Ross McElroy, which made the Patterson Lake South high-grade discovery. Mr. McElroy elected to stay with FCU to focus on the development of the Triple R deposit at Patterson Lake South but remains on Fission 3.0's Board of Directors and remains as the Company's QP.

Several of Fission 3.0's projects are near large uranium discoveries, including the Arrow, Triple R and Hurricane deposits. At the end of December Fission 3.0 completed an C$8.6 million financing with an additional C$690,500 raised from the exercise of warrants to go along with the C$9.3 million the Company finished Q3/21 with. This leaves the Company well-funded at year end to continue its aggressive winter exploration/drill

program on its Patterson Lake North project, which mobilized January 10th. Plans include a 4,000m seven-hole winter drill program focused on the previously untested Broach Lake and N Conductor targets.

Fission 3.0 has lots of cash in the bank and plenty of targets to drill, which should make for an exciting few months regardless of what happens in the rest of the world. With a market cap of approximately C$41 million, there is still plenty of upside to be had if this successful team can find yet another world class uranium resource.

U.S. nuclear power generation at historical heights as investors buy uranium

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There has been a lot of talks lately about fossil fuel energy source prices rising, particularly coal and gas prices. But did you know that uranium prices are up 64% since the August low, and are now at US$47.20/lb?

Uranium prices are up 64% from the August 16, 2021 low (as on 18 October 2021)

Source: Trading economics

The reason uranium prices are rising is that supply has reduced

and demand is reviving with an upward trajectory.

Uranium supply

In 2020, ~46Mlbs or ~35% of global supply of uranium production (annualized), was suspended due to low prices. Kazatomprom, the world's largest uranium miner, announced a 20% reduction in production into 2023. Cameco shuttered McArthur River and (largest in Canada) Cigar Lake mines, and there are several others. Meanwhile, U.S uranium production is non-existent, or as Ur-Energy states: "2020 – 2021Q2: U.S. uranium production continues to be so low EIA unable to report due to commitments of confidentiality."

EIA report: 2020 U.S. mined production negligible – too low to be reported

Source: UR-Energy company presentation

Uranium demand

Demand has remained strong and has recently been boosted by some serious market speculators. The one that grabs the headlines most is the Sprott Physical Uranium Trust which has been buying up millions of pounds of uranium. Of course, the regular buyers are the utilities that own and operate nuclear reactors and want to secure supply.

World and U.S. nuclear power generation has recovered from a 2011 post-Fukushima contraction and is near historical peak generation levels

Source: Western Uranium & Vanadium company presentation

While higher prices ultimately encourage supply to come back on, it appears there is no rush for uranium producers to ramp up to large volumes and swamp the market; especially as they are now enjoying the windfall of higher prices after 5 years of very low prices. Many are finding that distressed inventory has become an asset as market pricing exceeds production costs.

Uranium is forecast to be in deficit each year to 2025

Source: Western Uranium & Vanadium company presentation (courtesy Canaccord Genuity estimates)

3 leading U.S uranium producers

Energy Fuels Inc. (NYSE American: UUUU | TSX: EFR) has been building uranium inventory while diversifying into rare earths production. The Company has significant capacity to quickly increase low-cost U.S. uranium production from proven assets and has more production facilities, capacity & experience than any other U.S. company.

Ur-Energy Inc. (NYSE American: URG | TSX: URE) is among the top two U.S uranium producers and is a global low cost uranium producer. Ur-Energy operates the Lost Creek in-situ recovery uranium facility in south-central Wyoming, USA.

Western Uranium & Vanadium Corp. (CSE: WUC | OTCQX: WSTRF) own the Sunday Mine Complex, which is now back in pre-production development. On October 12, 2021 the Company stated: "Active mine development operations have resumed at the Sunday Mine Complex, and the project is already producing strong results……The ore body is projected to be significantly larger than indicated by the previous limited surface drilling. Development ore is being stockpiled underground. Full production

of the GMG ore body can begin with the improvement of market conditions and after development operations are completed within six months.”

Closing remarks

The leading U.S uranium miners (as mentioned above) have seen significant stock price increases over the past year as uranium prices rose on the back of a growing uranium deficit.

Looking ahead the US uranium producers are well placed to benefit from the Biden policies that are becoming aware of the importance of smart nuclear power generation and of building a significant uranium reserve. After all, key parts of the U.S military and about 20% of U.S electricity rely totally on nuclear and hence uranium. Today, the U.S. imports 95% of its annualized uranium demand. There is a need to ramp up domestic and North American production if the more than 100 U.S. based civilian nuclear power reactors are to remain in service without interruption by geopolitical factors.

Meanwhile Europe, other than France, which gets 80% of its electric power from nuclear, and Asia are learning they also need a stable source of base load power that is not carbon based. As we approach the COP26 climate summit on November 1, the future of nuclear and uranium has never looked better.

Up 207% over the past year,

Ur-Energy's revenue is 'forecast' to rise exponentially in the next 2 years

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Uranium prices have grinded higher in 2021 and the outlook has never looked better for U.S uranium miners with forecast uranium deficits in the years ahead. US uranium producers are well placed to benefit from the Biden policies that understand the importance of nuclear and securing uranium. Right now the USA produces virtually zero uranium and is dependent upon Russia (including Russia controlled sources in Kazakhstan) for about 50% of their uranium supply. 20% of U.S electricity relies on nuclear as does much of the U.S Navy fleet.

Ur-Energy Inc. (NYSE American: URG | TSX: URE) is among the top two U.S uranium producers and is a global low cost uranium producer. Ur-Energy operates the Lost Creek in-situ recovery uranium facility in south-central Wyoming, USA, currently on hold due to the uranium prices bear market. The stock is having a stellar year, up 207% over the past year boosted by improving uranium prices and positive uranium policy from the Biden administration.

Ur-Energy's stock has been rising with the beginning of what looks to be a new uranium bull market

Source: Yahoo finance

An update on Ur-Energy

Over the past year, the Company has been working on their expansion plans. Ur-Energy now has all major permits and authorizations to begin construction at Shirley Basin, the Company's second in situ recovery uranium facility in Wyoming and is in the process of obtaining remaining amendments to Lost Creek authorizations for expansion of Lost Creek.

At Lost Creek, the mine is currently on care and maintenance awaiting higher uranium prices or suitably priced long term contracts.

Ur-Energy's revenue is 'forecast' to rise exponentially the next 2 years

Based on an online analyst's forecasts, Ur-Energy is set to grow revenues from US$8 million in 2021 (close to zero in operating profits) to US$24 million in 2022 (US$24 million in operating profits), and to US$75 million in 2023 (US$40 million in operating profits). That's a tremendous forecast revenue rise and would be mostly due to the anticipated ramp up in uranium production by Ur-Energy, forecast uranium deficits with stronger uranium pricing, and the U.S plan to establish a US$150 million pa U.S. uranium reserve building program over the next 10 years.

Joining the broad-market Russell 3000® Index

Announced on June 7, 2021, Ur-Energy is set to join the broad-market Russell 3000® Index as of June 28, 2021. This is a significant milestone achievement for the Company. Approximately $17.9 trillion is currently benchmarked to FTSE Russell indexes. Ur-Energy Chairman and CEO Jeff Klenda, stated:

"Ur-Energy is excited to be included in the Russell 3000® Index. This listing reflects the significant increase in our market capitalization over the past several months, and our continued effort to build shareholder value. Inclusion in the Russell

3000® is significant as the Russell indexes are widely followed by the investment community. We believe inclusion in the Russell index provides us with the opportunity to expand our shareholder registry as we continue to progress our strategic initiatives and maintain operational readiness until we ramp-up production operations at our Lost Creek Project."

Closing remarks

All indicators are pointing to higher priced uranium. A key being forecast global deficits the next 5 years+ due to strong demand and constrained supply. Another is that the Biden administration is pro smart nuclear, and the U.S wanting to achieve an independent supply of critical materials such as uranium. The only way to do this is by buying uranium from ally countries or more ideally from U.S producers on long term contracts that are profitable for the miners. Existing U.S demand to feed the U.S's nuclear reactors and military plus supply to build the reserve are all critical priorities right now for the USA.

Ur-Energy is ideally positioned in the USA to play a very significant part in restoring U.S energy security and the U.S uranium reserve. This helps explain why the stock has already run ahead by 207% in the past year and now trades on a market cap of US$316 million. The stock may well take a short-term pause but the next decade looks very strong for Ur-Energy.

Further learning

Ur-Energy's Jeff Klenda on Biden's interest in nuclear energy, US utilities 'just-in-time deliveries' for uranium and being the lowest cost producer of uranium in the U.S. (video)