

Industry Note

Equity Research

July 21, 2021

Metals & Minerals

Uranium Weekly: A Watershed Moment for the Uranium Market?

The Ux Consulting (UxC) weekly spot price indicator, published earlier this week, dropped slightly to US\$32.20/lb (down \$0.15/lb), or -0.5% versus the previous week. Year-to-date, the spot price is up 7.2%.

A watershed moment for the uranium market, or an evolutionary one? The Sprott Physical Uranium Trust started trading this week on the Toronto Stock Exchange under the symbol U.UN (U.U in U.S. dollars) following the conversion of Uranium Participation Corp. to a Trust. In some quarters, expectations are high that the Trust could have a dramatic impact on the small and somewhat insular spot uranium market by bringing increased liquidity and transparency to what has historically been an opaque market to most outside observers.

The Trust will disclose its holdings and net asset value on a daily basis (Exhibit 1) and the U.S. dollar purchase option should make the Trust more attractive for a much larger investor base in the United States. The Trust also expects to pursue a U.S. listing, which could further broaden its appeal. Although we understand that a U.S. listing could take 9-10 months to achieve, given the complexities involved.

The Trust will also deploy an At-The-Market (ATM) offering program that will allow it to sell new units into the market on a regular basis, when the units are trading at a premium to the underlying NAV (as they are now). The proceeds from the ATM offering will be used to purchase physical uranium and, as such, the Trust will likely be more active in the market on a regular basis than the former Uranium Participation Corp. That being said, John Ciampaglia, CEO of Sprott Asset Management, is quoted in this week's Ux Weekly saying that he expects that the impact of the Trust will "be more evolutionary versus revolutionary. We have every intention of growing the Trust, but it will take time, and it has to be done thoughtfully."

We believe that the missing piece of the puzzle for a sustained upward move in the uranium term price remains the resumption of a term-contracting cycle. Uncovered utility demand is quite low for 2021 and 2022; uncovered demand for 2021 appears to be only several million pounds. Utilities seem to be prepared to meet this demand on a discretionary basis, while continuing to manage inventories.

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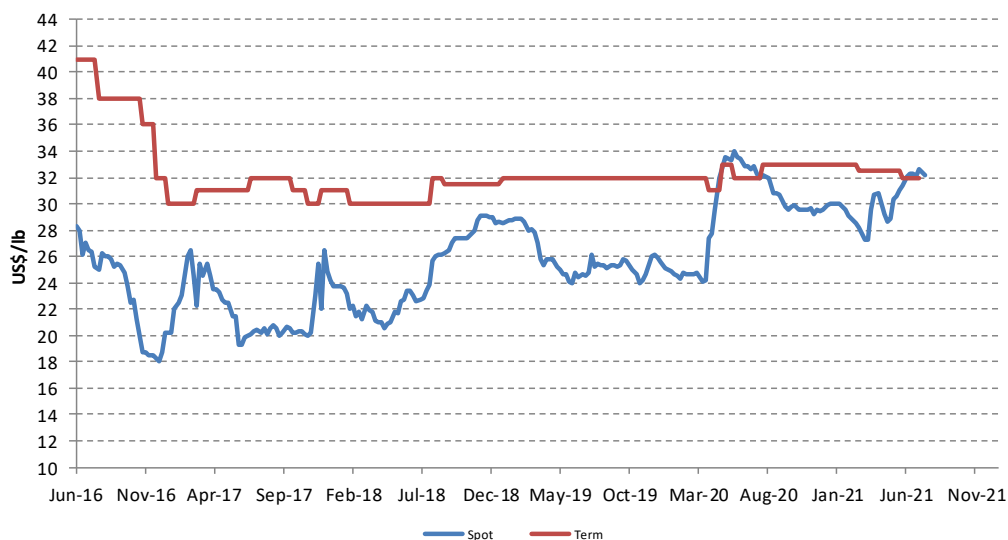
Exhibit 1. Sprott Physical Uranium Trust Details

as of 7/20/2021

NAV \$US8.38 ↗	NAV Daily Change +\$US0.01 ↗ 0.06%	NAV Since Inception Change 0.06% ↗	Management Fee 0.35%
Market Price \$US8.98 ↗	Premium/Discount 7.19%	Total lbs of U ₃ O ₈ 18,194,658 Total KgU of UF ₆ 300,000	Total Net Asset Value \$US630 Million

Source: Sprott Physical Uranium Trust

Exhibit 2. Spot and Term Uranium Prices (US\$/lb)



Source: UxC; TD Securities estimates

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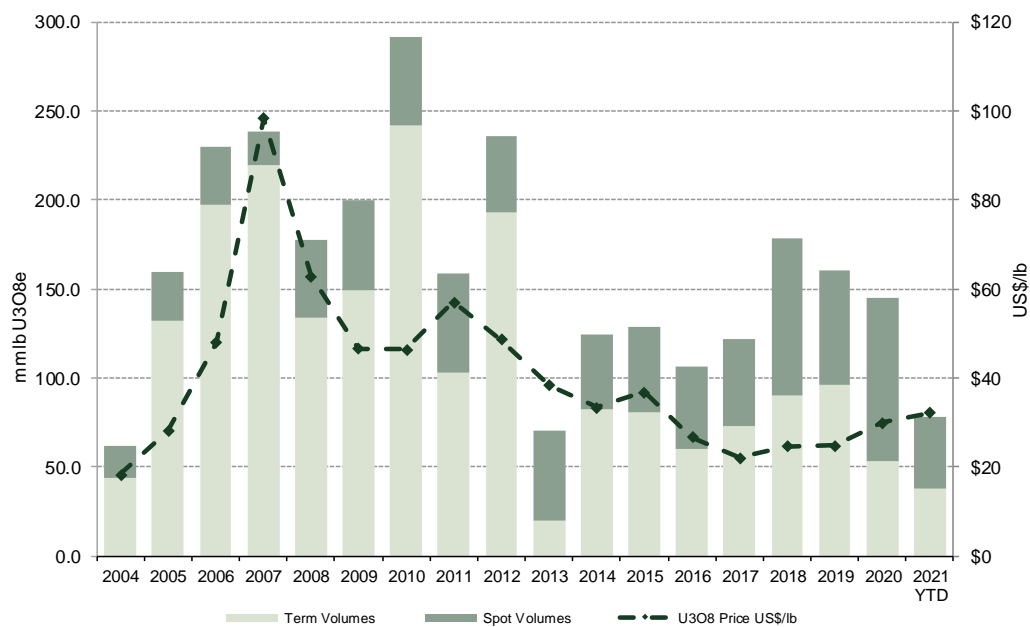
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Exhibit 3. Uranium company equity offerings and uranium purchases

Company	Date Equity Offering and/or Uranium Purchase Announced	Equity Offering (US\$ millions)	Uranium Purchased or Planned to Purchase (million pounds)	Estimated Average Price of Uranium Purchases (Planned or Actual) (US\$/lb)
Yellow Cake	25-Feb-21	140.0	3.90	28.78
Denison Mines	15-Mar-21	86.3	2.50	29.61
Uranium Energy	17-Mar-21	30.5	1.40	29.00
Boss Energy	29-Mar-21	46.0	1.25	30.15
Uranium Energy	6-Apr-21	12.0	0.71	31.70
Uranium Participation Corp. ¹	3-May-21	66.4	1.78	30.50
Yellow Cake	11-May-21	n/a	0.34	29.15
Western Uranium & Vanadium	2-Jun-21	n/a	0.13	31.50
Total/Average		381.2	12.00	29.59

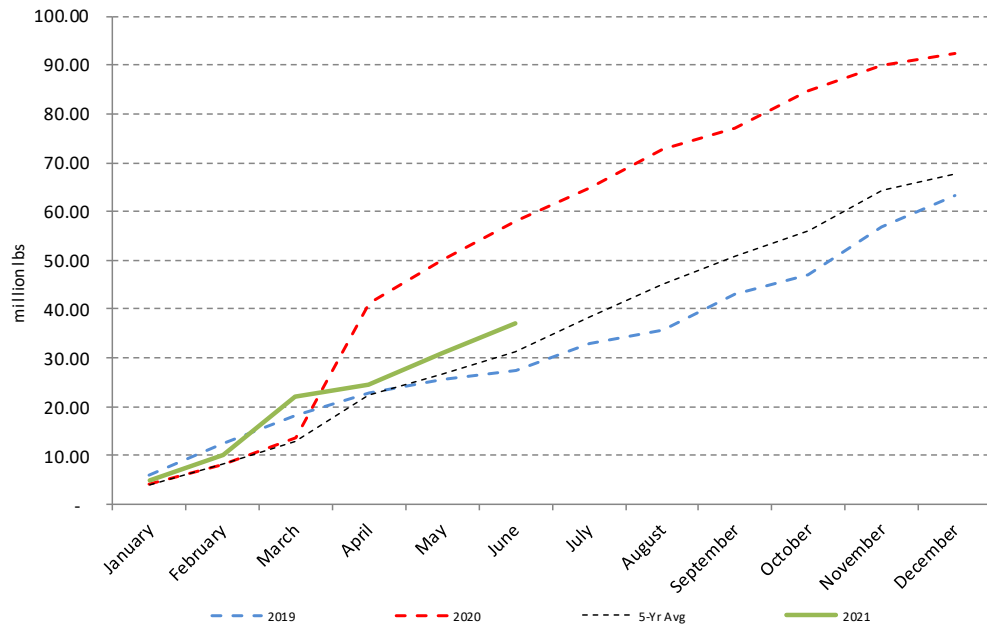
Source: Company reports; TD Securities estimates

Exhibit 4. Spot and Term Volumes



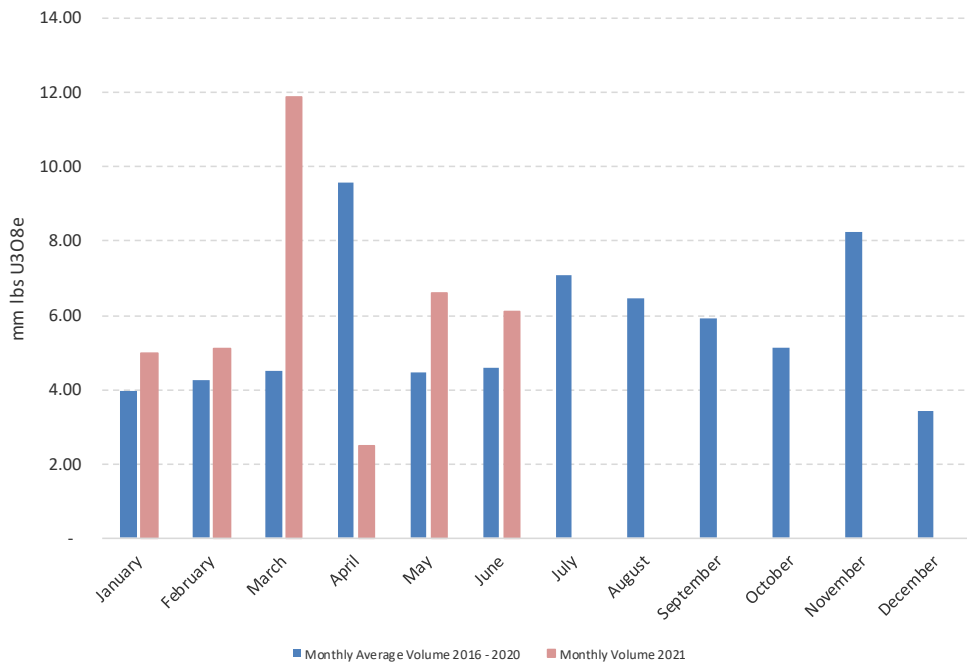
Source: UxC; TD Securities estimates

Exhibit 5. Historical vs. 2021 Cumulative Monthly Spot Volumes



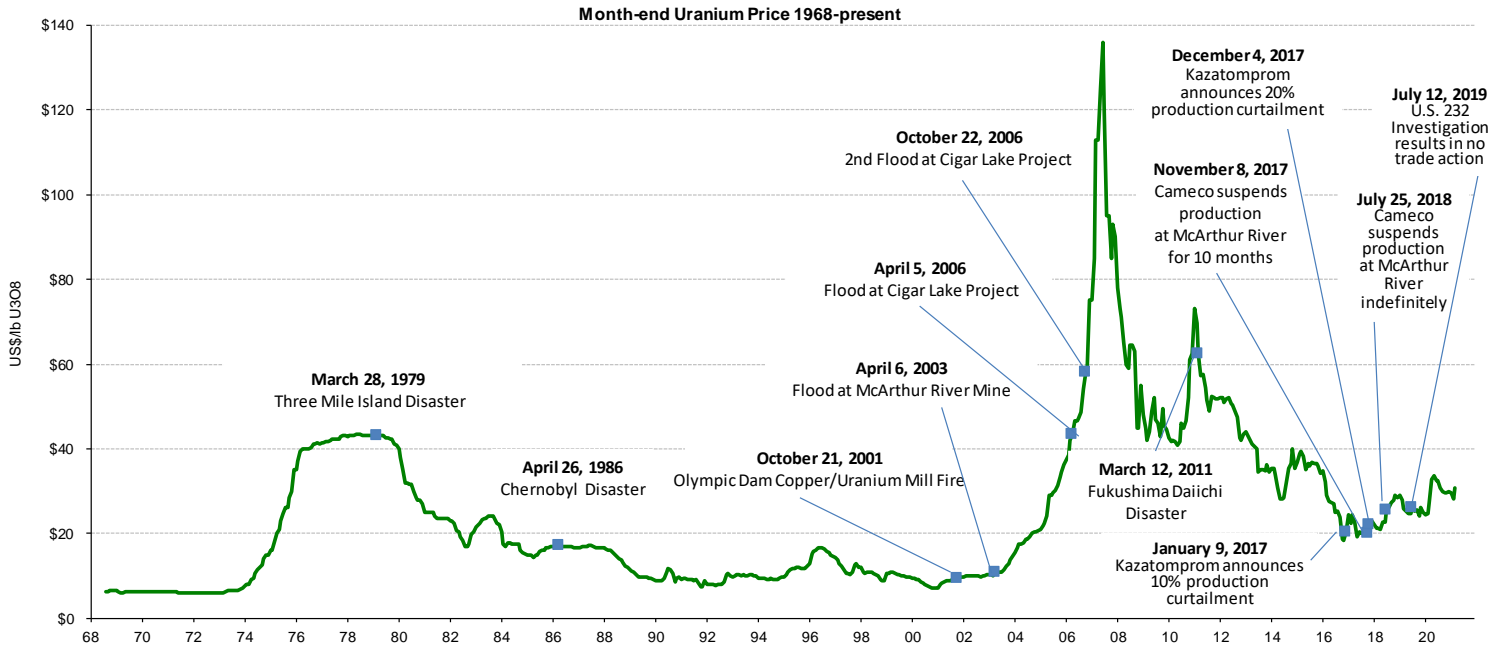
Source: UxC; TD Securities estimates

Exhibit 6. Monthly Average Spot Volumes



Source: UxC; TD Securities estimates

Exhibit 7. Historical Spot Price and Market Impacting Events (US\$/lb)



Source: UxC, Companies, TD Securities Inc.

Exhibit 8. Uranium Term Price Premium to Spot (US\$/lb)



Source: UxC; TD Securities estimates

Exhibit 9. Uranium Prices – Spot, 3yr Fwd and 5yr Fwd



Source: UxC

Exhibit 10. Fund Implied Price (FIP) and Spot Price



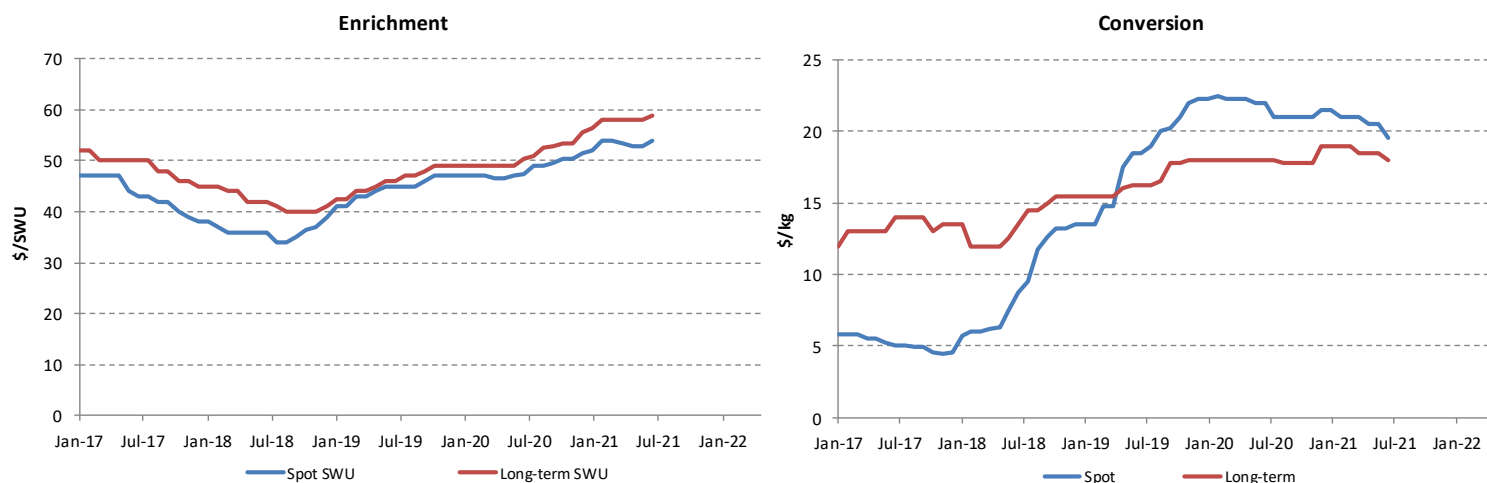
Source: UxC; TD Securities estimates

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Exhibit 11. Monthly SWU and Conversion Pricing



Source: UxC; TD Securities estimates

Exhibit 12. TD Securities Uranium Supply/Demand Model

	2017	2018	2019	2020	2021E	2022E	2023E	2024E	2025E
Mine Supply - Western World (Mib U3O8)									
Total Mine Supply - Western World	100	83	85	81	73	80	85	88	86
Net Eastern Mine Supply (lbs U3O8)	54	54	55	44	52	53	60	66	72
Total World Mine Supply (Mib U3O8)	154	138	140	125	126	132	145	154	158
YoY % change	-7.6%	-10.2%	1.7%	-10.9%	0.7%	5.3%	9.1%	6.8%	2.6%
Secondary Supply									
Global underfeeding and tails re-enrichment*	19	18	18	16	16	15	15	14	14
Mixed Oxide Fuel (MOX)*	5	5	6	6	6	6	6	7	8
US government sales (DOE Proposed)*	3	2	2	1	0	0	0	0	0
Additional Russian secondary supply*	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0
Total Secondary Supply (Mib)	27	24	26	24	22	21	21	21	21
Secondary supply as % of global reactor demand	16%	14%	15%	13%	12%	12%	12%	11%	11%
Mobilization of Commercial Inventory	7	7	7	7	7	7	7	7	7
Total Supply	187	169	173	156	155	161	173	183	187
Total World Demand									
Total World Nuclear Generating Capacity (MWe) *	358,819	368,571	372,978	374,420	384,508	385,211	389,242	394,906	398,885
Uranium requirements per MWe	472	472	472	472	472	472	472	472	472
Uranium demand (mmlb)	169	174	176	177	181	182	184	186	188
First Core Requirement (2 year lead)	-	-	-	-	-	-	-	-	-
Total World Demand (Mib U3O8)	169	174	176	177	181	182	184	186	188
YoY % change	1.7%	2.7%	1.2%	0.4%	2.7%	0.2%	1.0%	1.5%	1.0%
Supply / Demand Balance (Mib)	18	-5	-3	-21	-27	-21	-11	-4	-2
Spot Uranium Price (US\$/lb U3O8)	\$22.12	\$24.82	\$25.94	\$29.52	\$31.94	\$36.00	\$38.00	\$40.00	\$45.00

* Source: World Nuclear Association - Nuclear Fuel Report 2019-2040 Reference Case

Note - TD LT price assumption starts in 2025; a flat US\$45/lb price is assumed for 2025 and beyond.

Source: UxC, Bloomberg, World Nuclear Association, TD Securities Inc.

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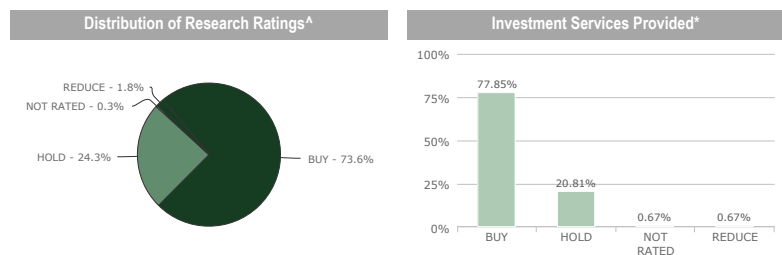
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