

Industry Note

Equity Research

January 26, 2021

Metals & Minerals

Uranium Weekly - Encouraging Signals from Term Market

The Ux Consulting (UxC) spot price slipped to \$29.50/lb over the past week (down \$0.30/lb) on light volume. Spot market volume for January has been below the seasonal average, during what is normally a period of low activity, at 1.9Mlbs. Over the past five years, January spot volume has averaged ~4.0Mlbs.

UxC noted that total spot market volume for 2020 was a record at 92.3Mlbs largely due to a spike in volume in April 2020 when COVID-19-related production curtailments were announced at several operations, including Cigar Lake and Kazatomprom's ISR facilities in Kazakhstan. According to UxC, producers purchased ~30Mlbs of uranium in the spot market in 2020, while utilities purchased ~18Mlbs.

Utility near-term requirements remain quite low, but we expect that producers will again be active in the spot market in 2021 given the ongoing production suspension at Cigar Lake and the echo effect on 2021 production from Kazatomprom's operations as a result of its production curtailments in 2020.

Term market activity could rebound in 2021 after a lackluster 2020. Total term market activity in 2020 was ~53Mlbs, the lowest since 2013. COVID-19 restrictions and trade policy issues likely had a negative impact utility activity. As well, we understand that utilities were more focused on establishing contracts for conversion and enrichment last year. With these contracts established, utilities are expected to put more attention towards uranium purchases. UxC noted this week that while its LT price indicator remains at US\$33/lb, "fixed price offers have been reported above the US\$40/lb level for deliveries in the late 2020s and beyond."

In our view, supply/demand fundamentals in the uranium market have improved significantly, with COVID-19-related supply curtailments pushing the market into a supply deficit. In addition, a number of trade policy issues that have hung over the market for several years (U.S. Section 232 investigation, Nuclear Fuel Working Group report, and Russian Suspension Agreement negotiations) have been resolved during, thereby reducing trade-related friction for utilities with respect to uranium purchases. Although anecdotal evidence suggests that utilities are increasingly turning to the term market, they are not doing so in sufficient numbers or purchased volumes to put upward pressure on term pricing yet. **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.**

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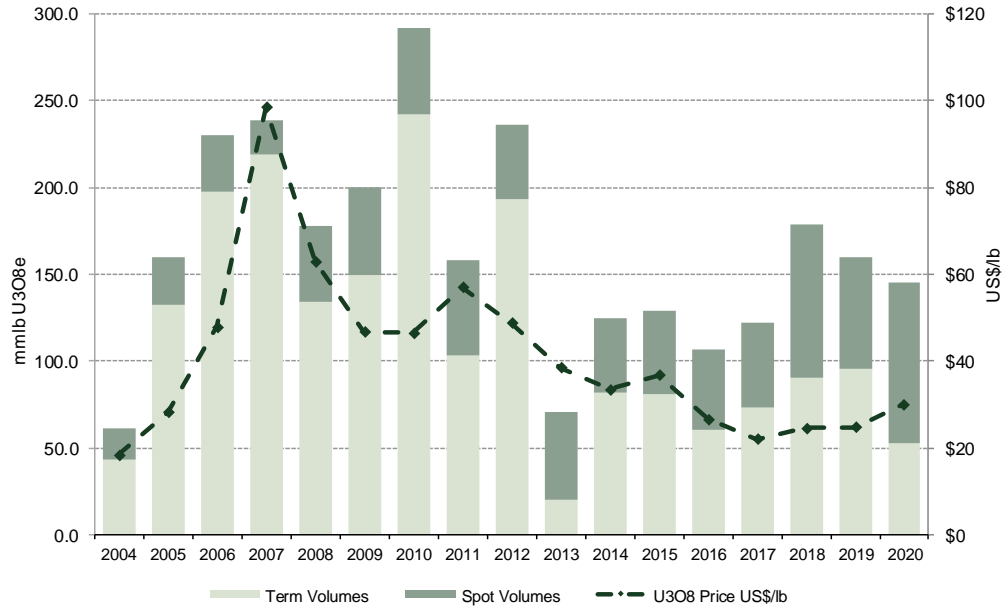


Industry Note

Equity Research

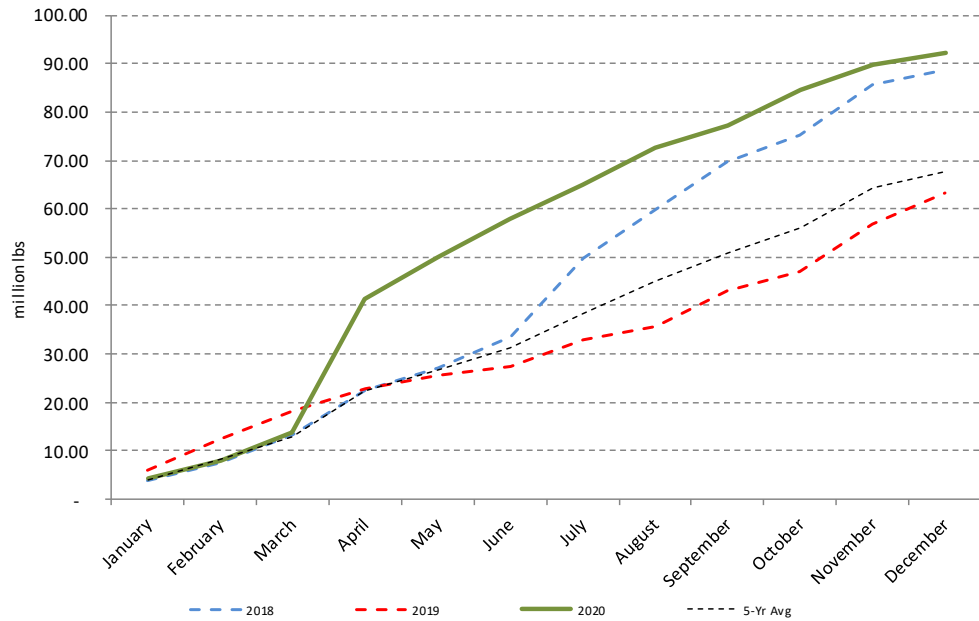
January 26, 2021

Exhibit 1. 2020 Spot Volumes Reach Record But Term Volumes Lag



Source: UxC

Exhibit 2. Historical vs. 2020 Cumulative Monthly Spot Volumes



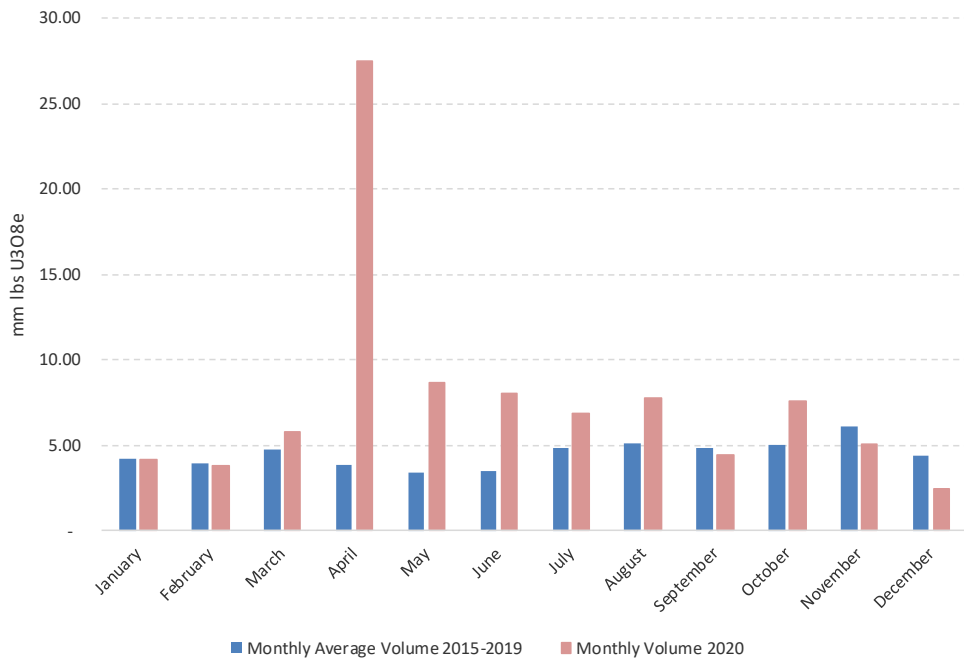
Source: UxC

Industry Note

Equity Research

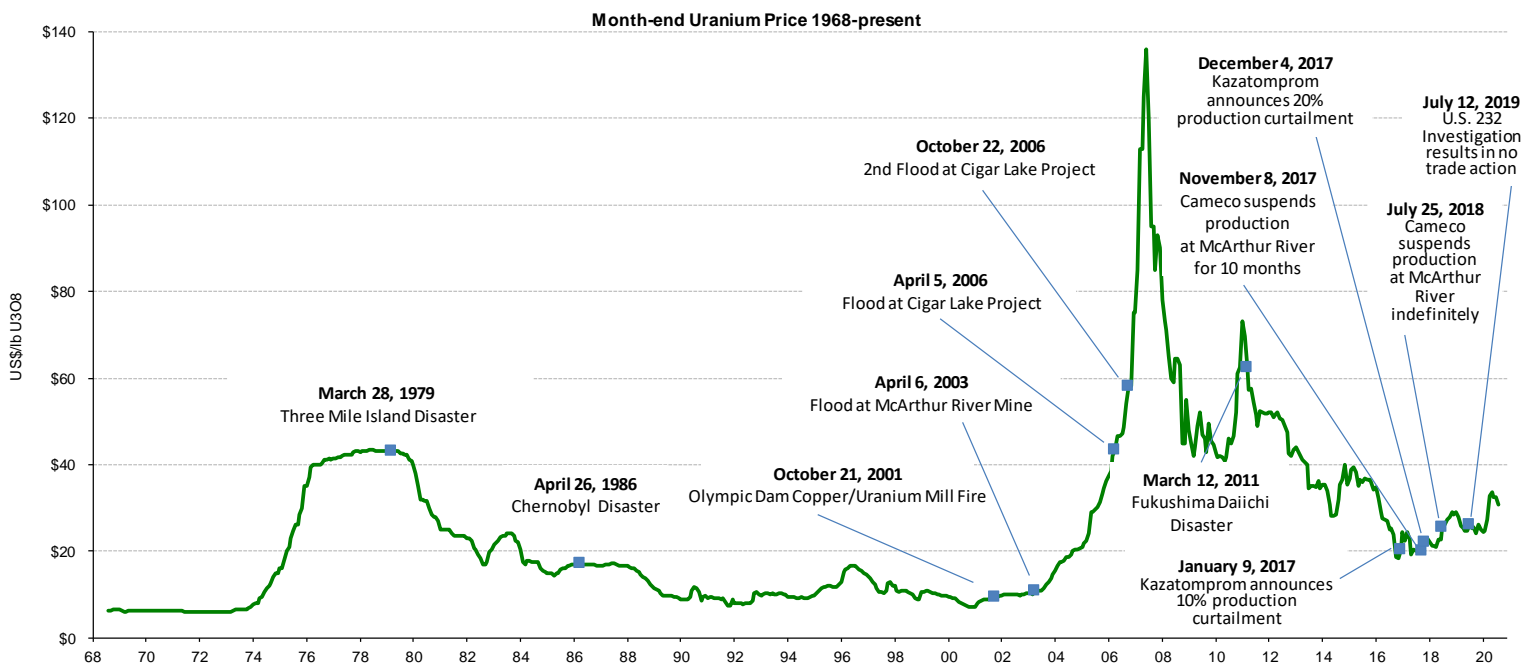
January 26, 2021

Exhibit 3. Monthly Average Spot Volumes



Source: UxC

Exhibit 4. Historical Spot Price and Market Impacting Events (US\$/lb)



Source: UxC, Companies, TD Securities Inc.

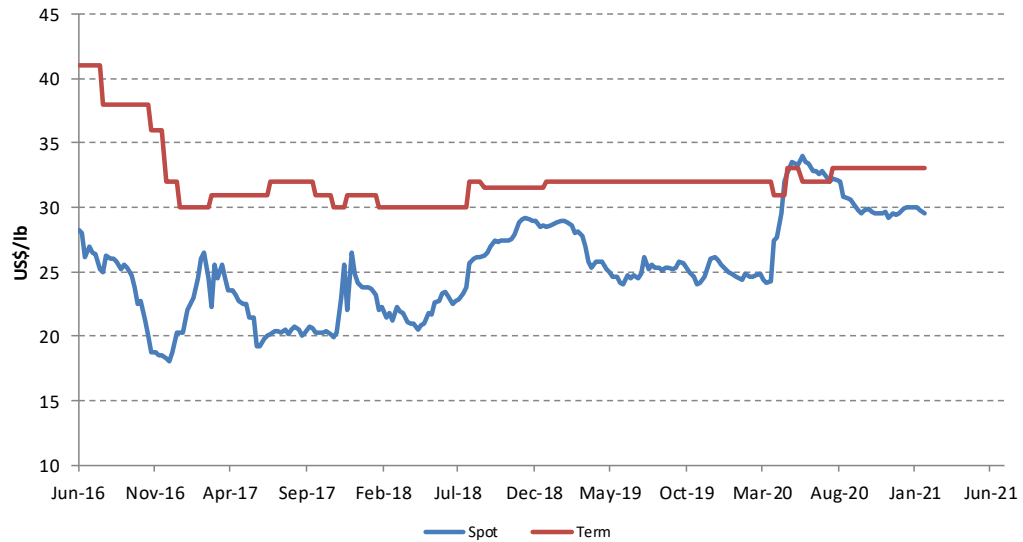


Industry Note

Equity Research

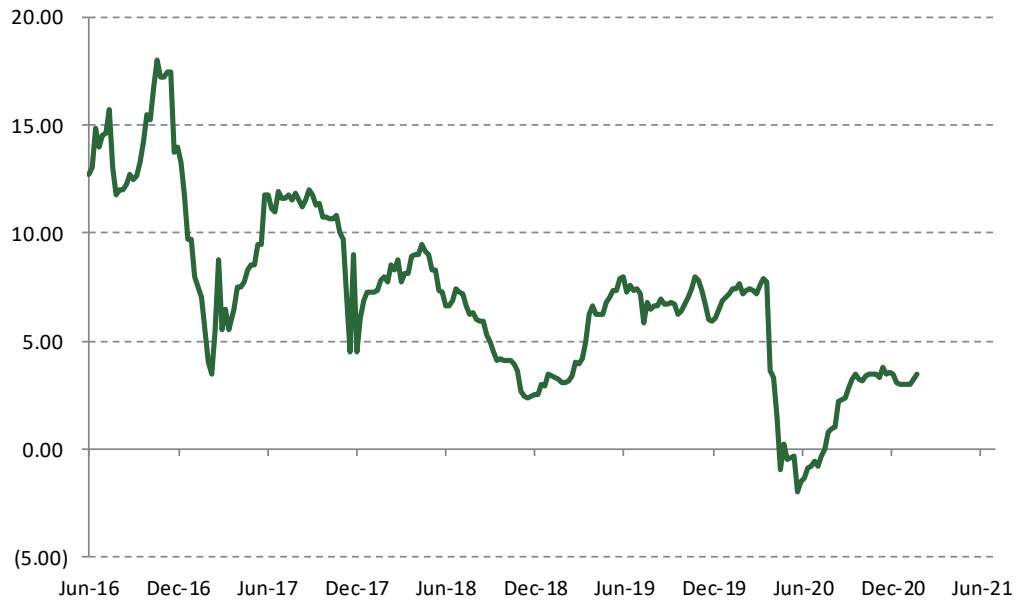
January 26, 2021

Exhibit 5. Spot and Term Uranium Prices (US\$/lb)



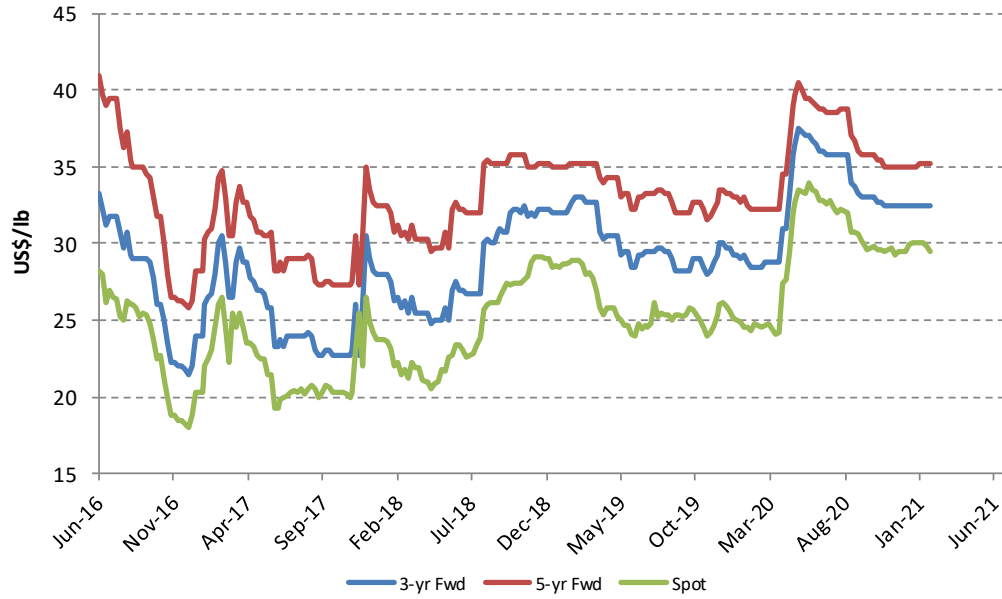
Source: UxC

Exhibit 6. Uranium Term Price Premium to Spot (US\$/lb)



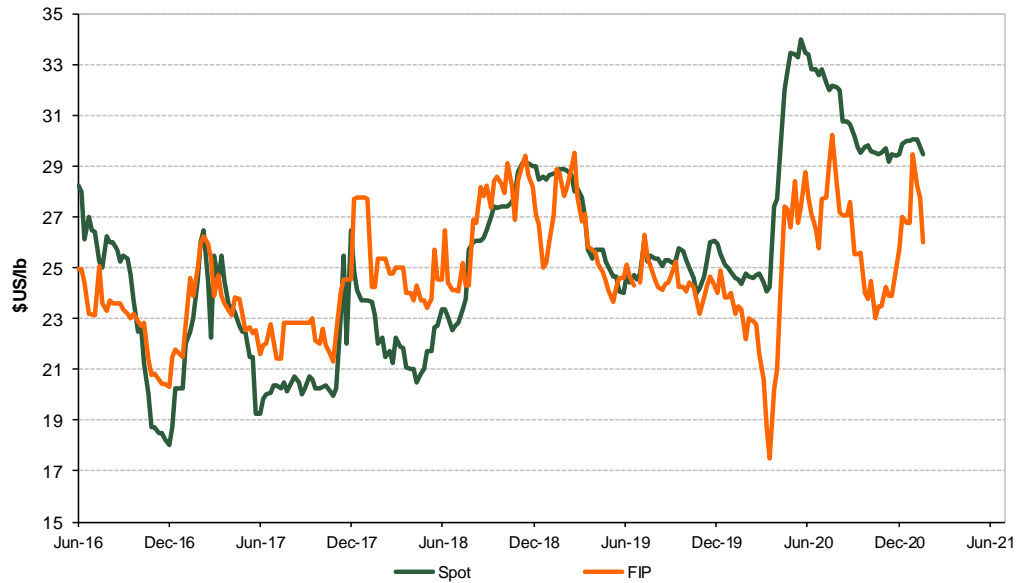
Source: UxC

Exhibit 7. Uranium Prices – Spot, 3yr Fwd and 5yr Fwd



Source: UxC

Exhibit 8. Fund Implied Price (FIP) and Spot Price



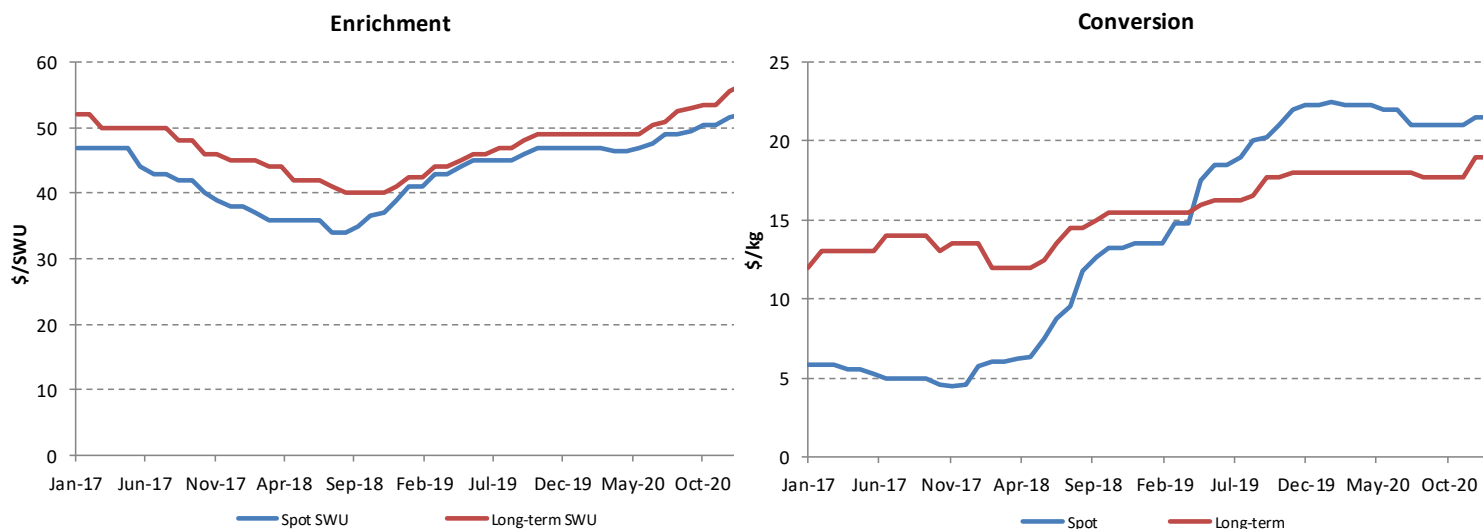
Source: UxC

Industry Note

Equity Research

January 26, 2021

Exhibit 9. Monthly SWU and Conversion Pricing



Source: UxC

Exhibit 10. TD Securities Uranium Supply/Demand Model

	2017	2018	2019	2020	2021E	2022E	2023E	2024E	2025E
Mine Supply - Western World (Mlb U3O8)									
Total Mine Supply - Western World	100	83	85	75	76	74	78	72	68
Net Eastern Mine Supply (lbs U3O8)	54	54	55	44	52	53	60	66	72
Total World Mine Supply (Mlb U3O8)	154	138	140	119	128	127	138	138	141
YoY % change	-7.6%	-10.2%	1.7%	-15.2%	7.9%	-1.4%	9.0%	-0.2%	2.1%
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 (Mlb)	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	150	157	155	166	166	169
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 (Mlb 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 (Mlb)	18	-5	-3	-27	-24	-27	-17	-20	-19
Spot Uranium Price (US\$/lb U3O8)	\$22.12	\$24.82	\$25.94	\$29.49	\$32.00	\$35.00	\$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.

Industry Note

Equity Research

January 26, 2021

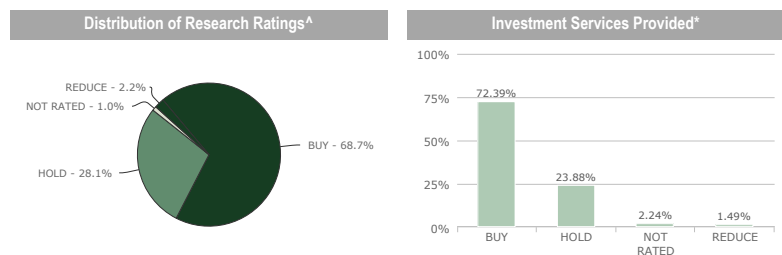
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Industry Note

Equity Research

January 26, 2021

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Industry Note

Equity Research

January 26, 2021

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