

Industry Note

Equity Research

March 25, 2021

Metals & Minerals

Uranium Weekly: More Self-help from Uranium Miners

The Ux Consulting (UxC) weekly spot price indicator, published earlier this week, jumped to US\$29.60/lb (up \$2.30/lb), or +8.4% versus the previous week.

The sharp move higher w/w was driven by spot purchases by both financial players and pre-development uranium miners. In total, we estimate that more than 7.0 million pounds of uranium purchases have been funded via equity offerings over the past month (Exhibit 1). Since the sharp move higher at the end of last week, the spot price has moved sideways. We believe that this reflects both the market digesting the higher price and buyers standing on the sidelines waiting to see how much material is made available. We believe that more than 2.0 million pounds of buying power remains on the sidelines that was funded via equity offerings over the past month.

There is a long-standing question in the uranium market about what is the true level of surplus pounds available in the spot market? As far as we can tell, no one really knows. But to this point, we believe it is fair to say that there have been more pounds available than was expected, given substantial production curtailments by both Cameco and Kazatomprom have so far failed to lift spot prices above the US \$30/lb level on a sustainable basis. That being said, we do know that there is buying pressure in the spot market with uranium producers, financial players, and now pre-development uranium companies all actively looking for pounds. All told, we estimate that there will be upwards of 10 million-12 million pounds of uranium purchases to be filled over the rest of this year from these three groups. Whether that is enough to draw-down surplus non-strategic inventories is unclear, but we believe it will make a dent and possibly a big one.

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. We believe that there are competing views among the utilities about what the recent purchasing activity means to the market. Some are concerned that spot, mid-term, and long-term supply are tightening and this group is having off-market discussions with producers to secure material. Others are less concerned and view the recent round of purchasing as simply a shift of inventory from one hand to another.

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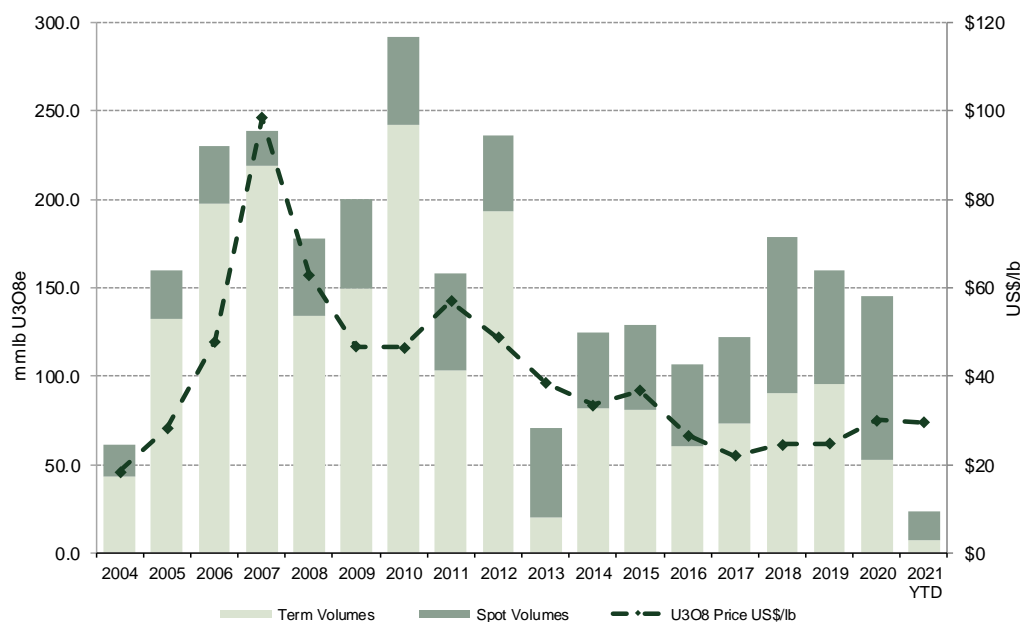
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Exhibit 1. Uranium Company Equity Offerings and Uranium Purchases

Company	Date Equity Offering Announced	Equity Offering (US\$ millions)	Uranium Purchased or Planned to Purchase (million pounds)	Average Price of Uranium Purchases (Planned or Actual) (US\$/lb)
Yellow Cake	25-Feb-21	140.0	3.5	28.95
Denison Mines	15-Mar-21	86.0	2.5	28.50
Uranium Energy	17-Mar-21	30.5	1.2	28.94
Total/Average		256.5	7.2	28.79

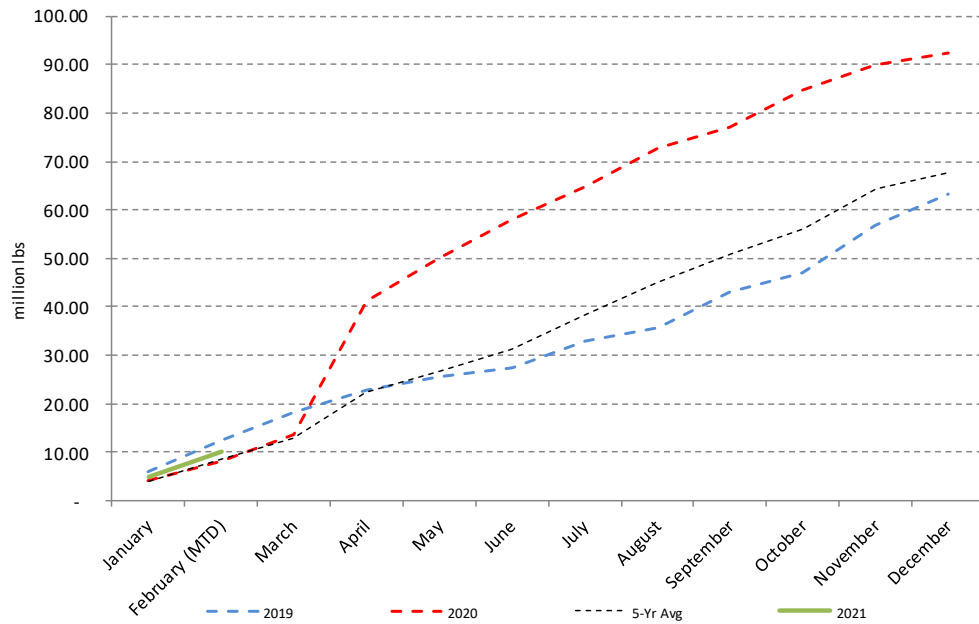
Source: Company reports, TD Securities Inc. estimates

Exhibit 2. Spot and Term Volumes



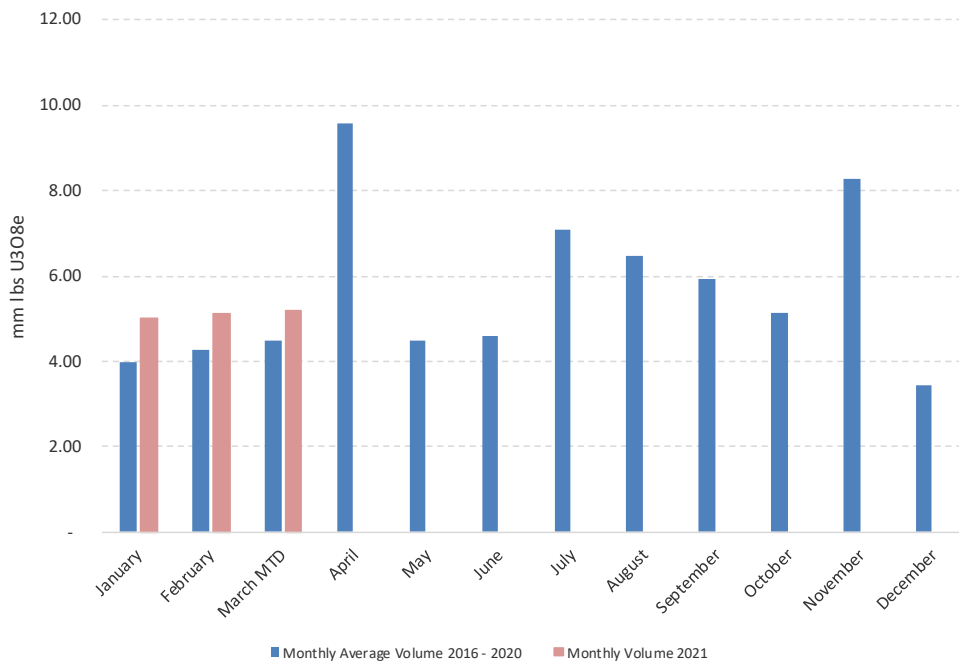
Source: UxC

Exhibit 3. Historical vs. 2021 Cumulative Monthly Spot Volumes



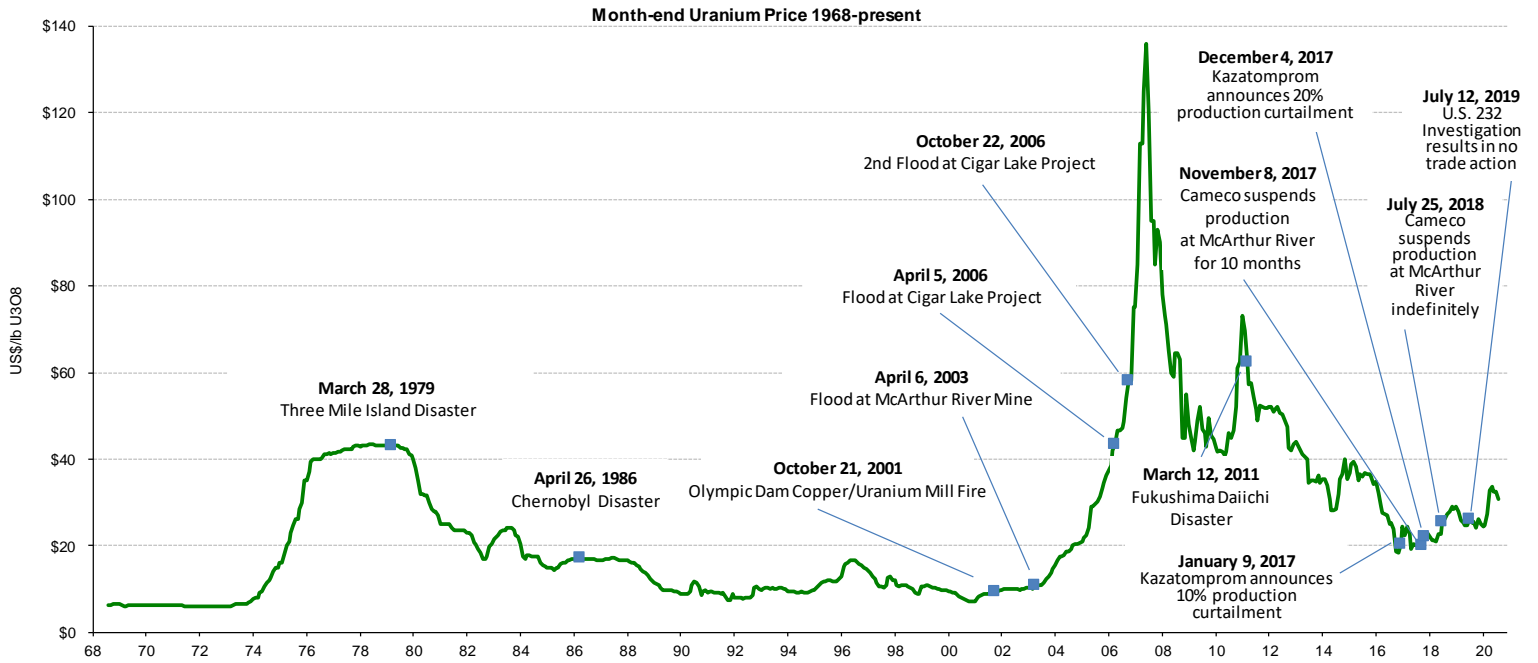
Source: UxC

Exhibit 4. Monthly Average Spot Volumes



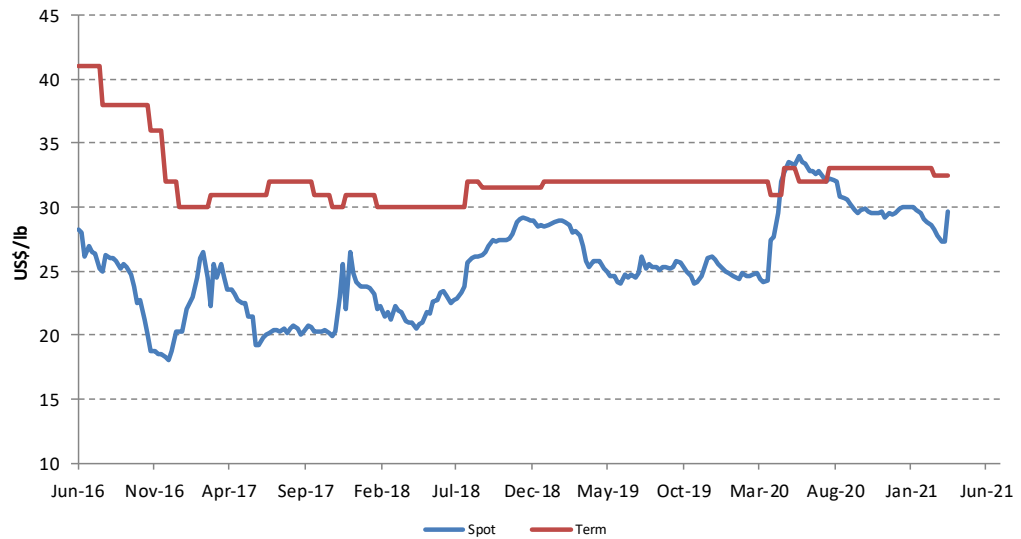
Source: UxC

Exhibit 5. Historical Spot Price and Market-affecting Events (US\$/lb)



Source: UxC, companies, TD Securities Inc.

Exhibit 6. Spot and Term Uranium Prices (US\$/lb)



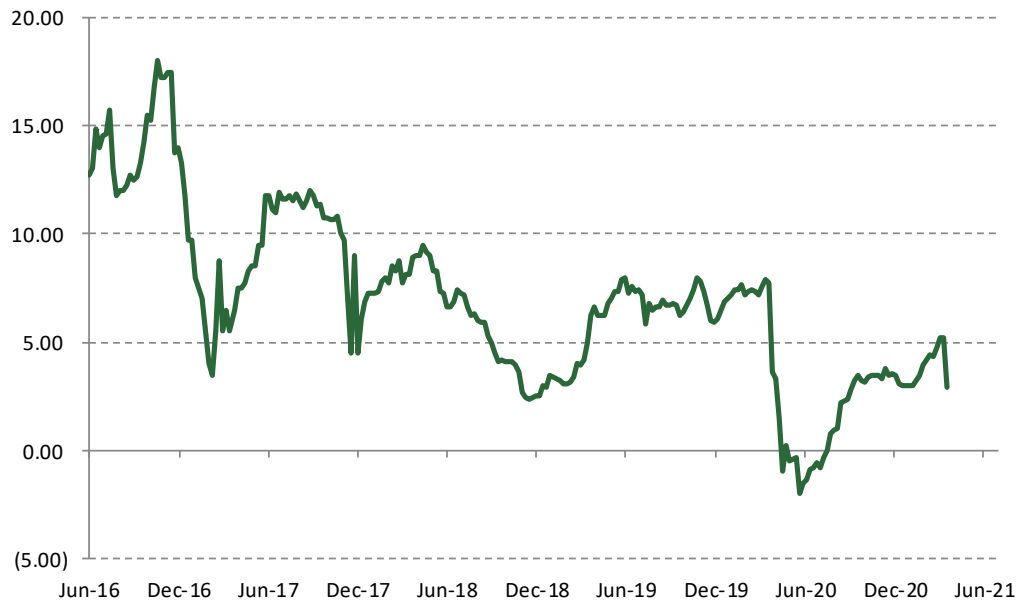
Source: UxC

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Exhibit 7. Uranium Term Price Premium to Spot (US\$/lb)



Source: UxC

Exhibit 8. Uranium Prices — Spot, 3-year Forward and 5-year Forward



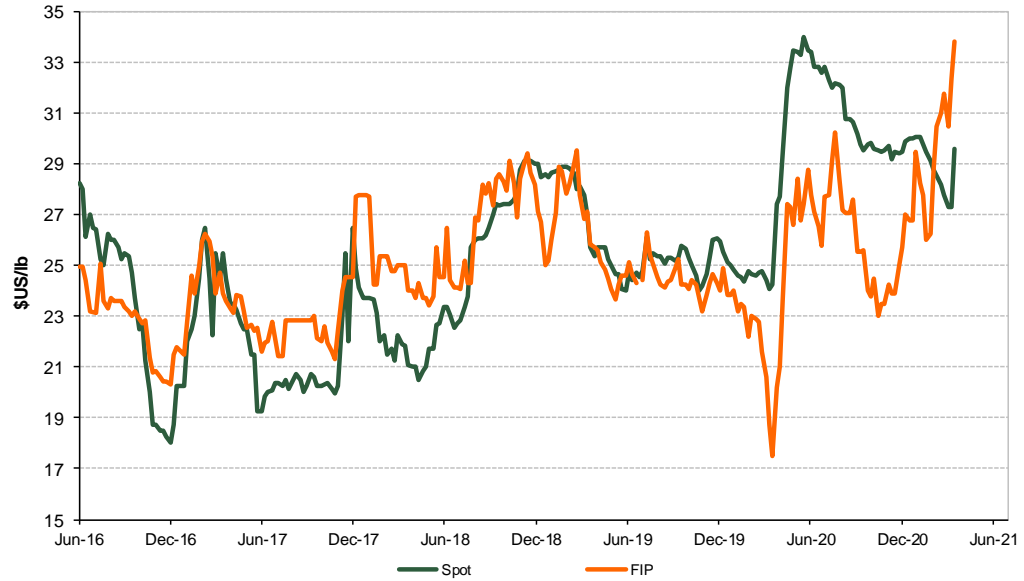
Source: UxC

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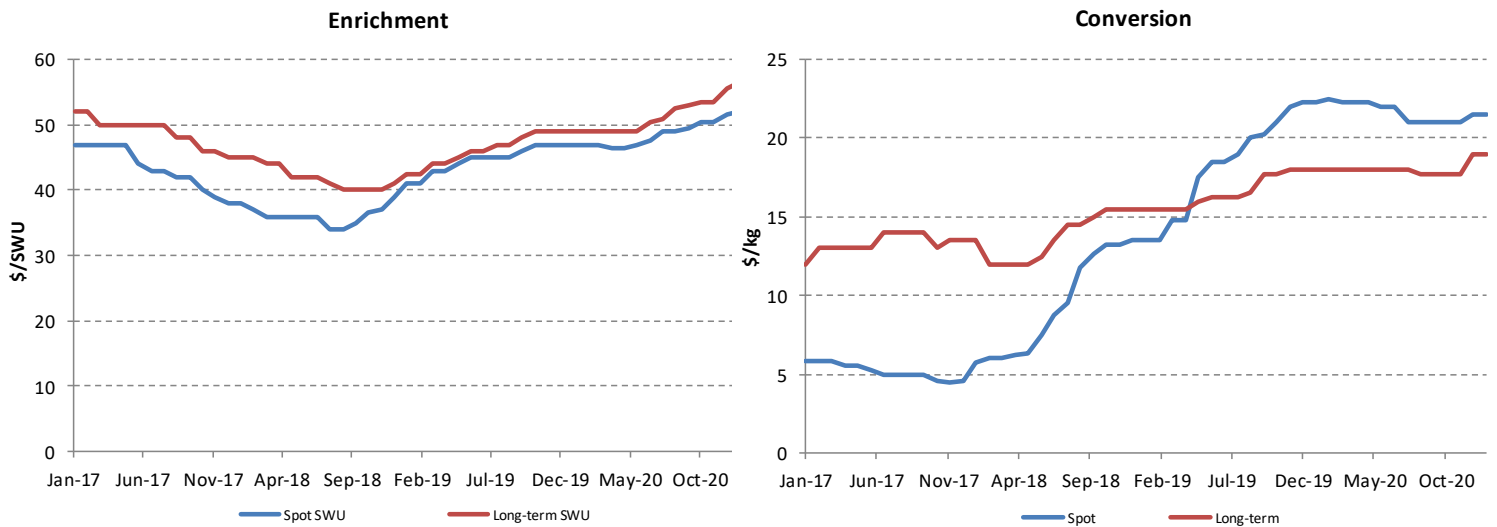
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Exhibit 9. Fund Implied Price (FIP) and Spot Price



Source: UxC

Exhibit 10. Monthly SWU and Conversion Pricing



Source: UxC

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Exhibit 11. 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	73	80	85	88	86
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	126	132	145	154	158
YoY % change	-7.6%	-10.2%	1.7%	-15.2%	5.8%	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 (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	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 (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	-27	-21	-11	-4	-2
Spot Uranium Price (US\$/lb U3O8)	\$22.12	\$24.82	\$25.94	\$29.52	\$32.94	\$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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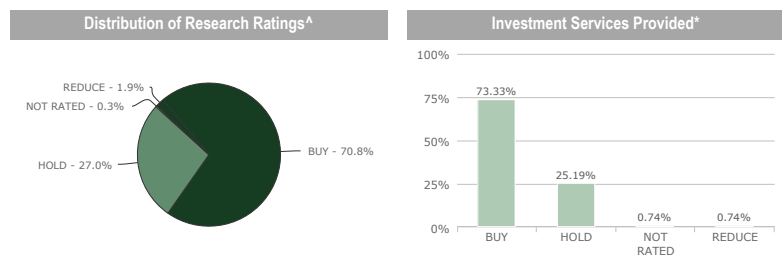
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