

# Industry Note

Equity Research

August 31, 2021

Metals &amp; Minerals

## Uranium Weekly: SPUT Drives Spot (and Term) Price Higher

**The Ux Consulting (UxC) weekly spot price indicator, published earlier this week, increased to US\$33.75/lb (up \$0.50/lb), +1.5% versus the previous week. Year-to-date, the spot price is up 12.3%. The spot price is at its highest level since May 2020. The month-end term uranium price also increased, up US\$1.50/lb, to US\$33.50/lb - its highest point since late 2016.**

**The main driver of the higher spot (and term) price appears to be active buying in the spot market by the Sprott Physical Uranium Trust (SPUT).** Since the conversion of Uranium Participation Corp. to SPUT in mid-July, we estimate that SPUT has purchased ~2.2 million pounds of uranium in the spot market. While this is not a huge volume of material, we believe that steady buying by SPUT is putting a consistent bid under the market. And with a US\$300 million ATM in place and SPUT's share price trading at premium to its underlying NAV, there is every reason to believe that the trust will continue to purchase material.

**UxC increased its August month-end term uranium price indicator to US\$33.50/lb despite limited formal activity in the term market over the past several weeks.** In fact, UxC noted that as far as it is aware, there are no current formal term requests in the market. Informal activity does appear to be ongoing albeit at a fairly low level. During its recent quarterly conference call Kazatomprom management noted that term demand from utilities is still not at levels that they would like to see, and this was partly behind the company's decision to maintain its 20% production curtailment into 2023.

**That being said, term activity year-to-date is now at 52.3 million pounds, almost matching total term demand of 53 million pounds for all of 2020.** Term demand in 2020 was negatively impact by the COVID-19 pandemic and higher term activity this year likely reflects the gradual reopening of the global economy. Over the five years prior to 2020, annual term demand averaged ~80 million pounds.

**To this point, utilities have displayed little urgency to enter the term market. However, we expect that if the spot uranium price continues to track higher off the back of secondary demand (financial and non-producer buying), it will likely drag the term price along with it - as we have seen during August.** Ultimately, this could draw more utilities into the term market as they start to worry about a spike higher in term prices. And at the end of the day, the financial performance of the large uranium producers is more related to term than spot pricing.

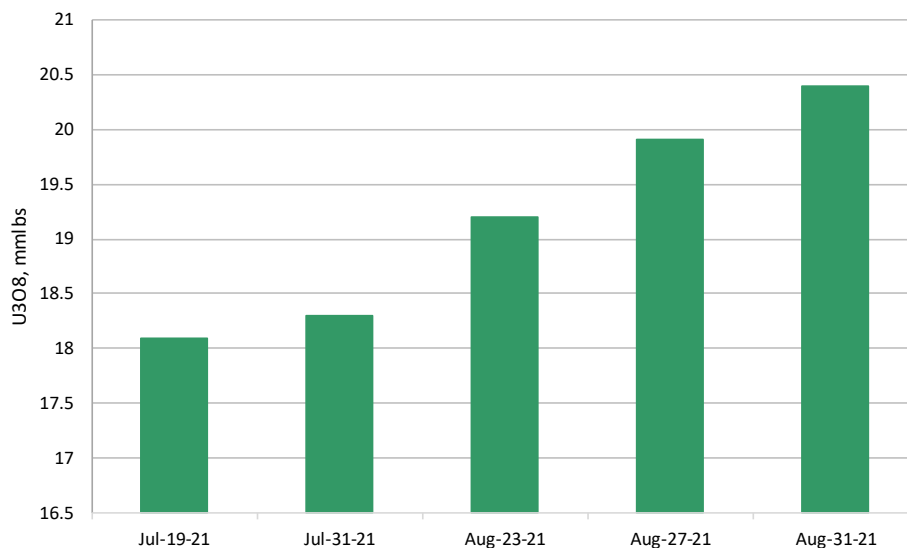
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**Exhibit 1. Sprott Physical Uranium Trust – Uranium Holdings Since Inception (July 19, 2021)**



Source: Sprott Physical Uranium Trust; TD Securities estimates

**Exhibit 2. Sprott Physical Uranium Trust – Share Price Premium to NAV**



Inception date: July 19, 2021.

Source: Sprott Physical Uranium Trust

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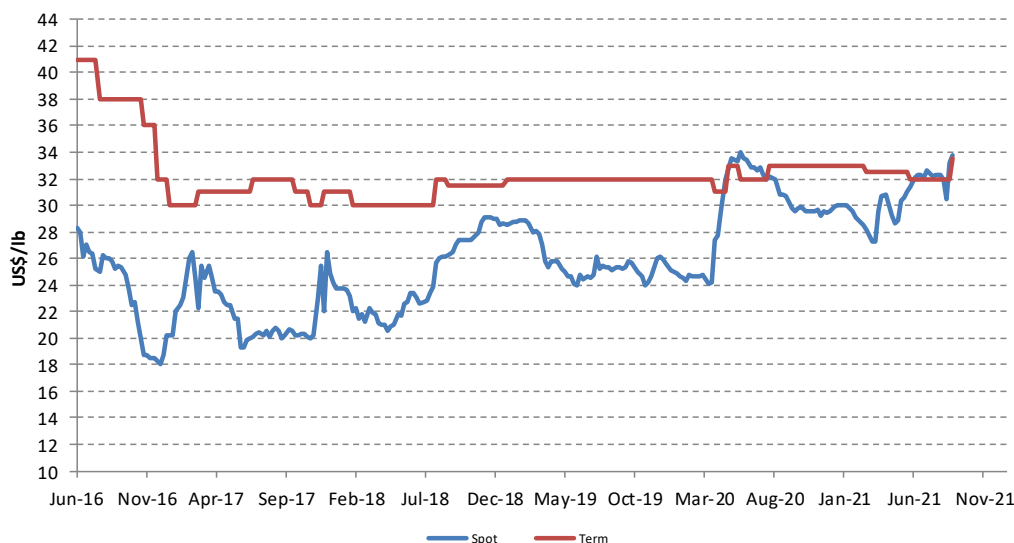
## Exhibit 3. Uranium company equity offerings and uranium purchases (excluding Sprott Physical Uranium Trust)

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. <sup>1</sup>	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
Yellow Cake	16-Jun-21	88.0	2.00	32.23
<b>Total/Average</b>		<b>381.2</b>	<b>14.00</b>	<b>29.97</b>

1. TD estimate for pounds purchased and average price

Source: Company reports; TD Securities estimates

## Exhibit 4. Spot and Term Uranium Prices (US\$/lb)



Source: UxC; TD Securities estimates

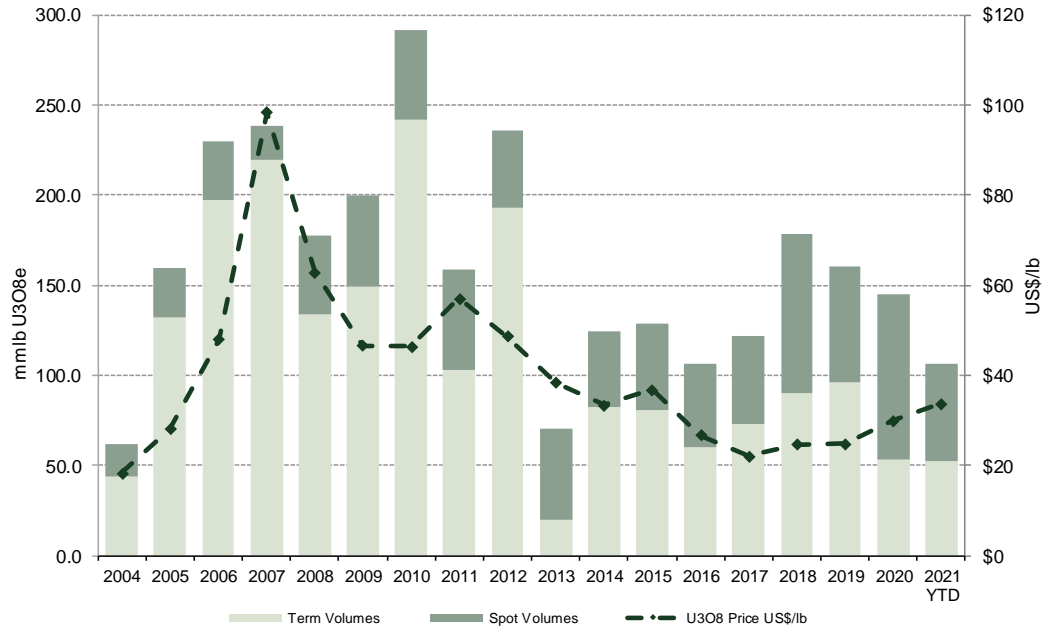


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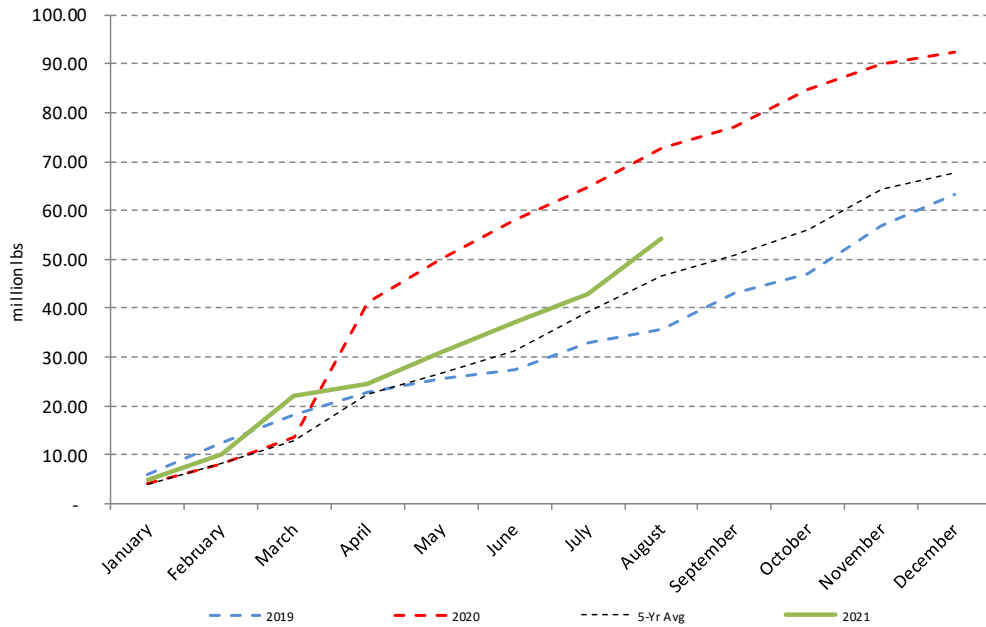
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**Exhibit 5. Spot and Term Volumes**



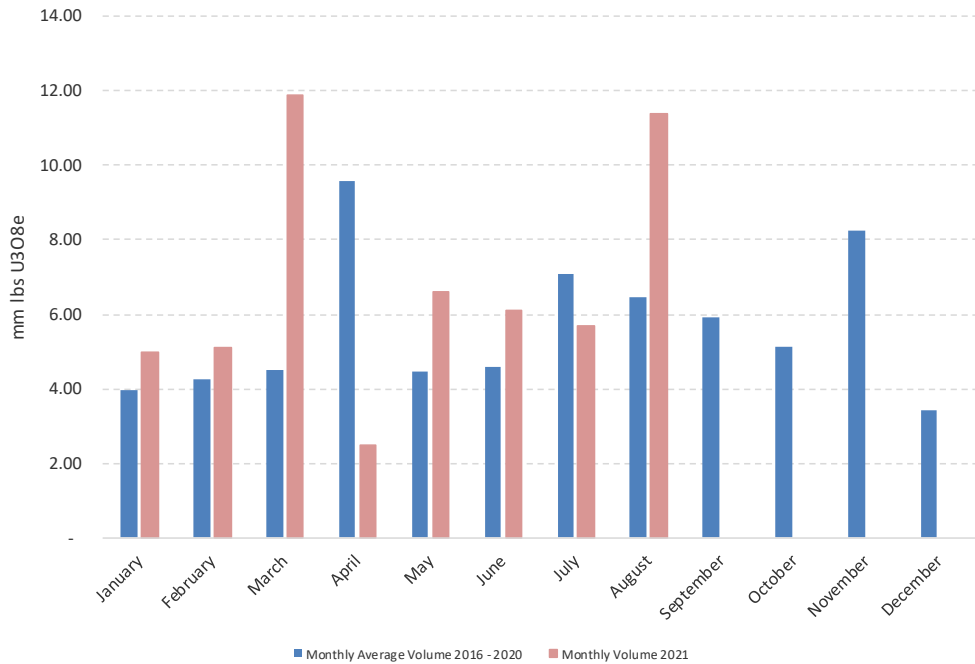
Source: UxC; TD Securities estimates

**Exhibit 6. Historical vs. 2021 Cumulative Monthly Spot Volumes**



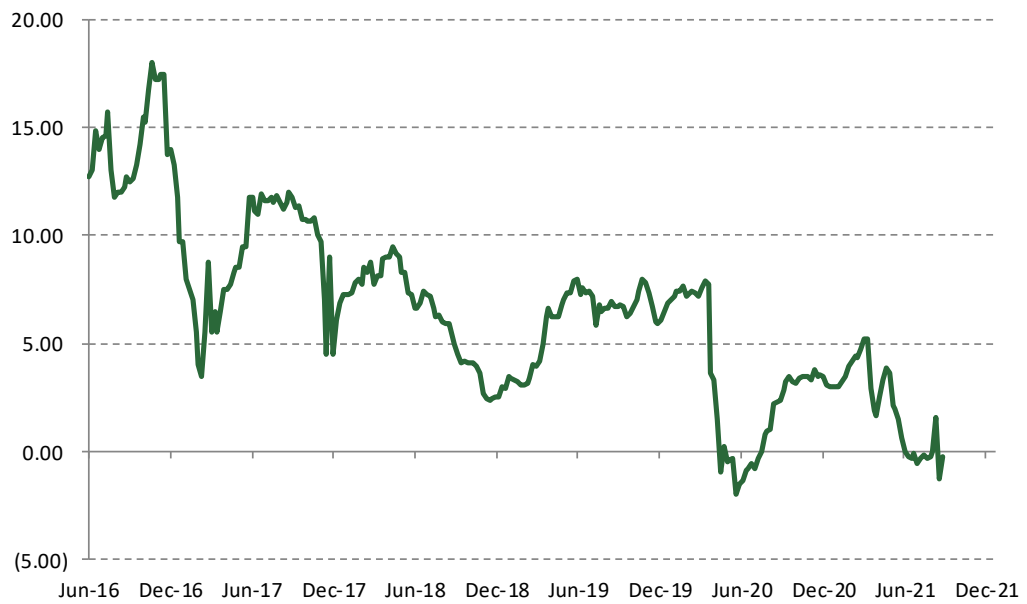
Source: UxC; TD Securities estimates

**Exhibit 7. Monthly Average Spot Volumes**



Source: UxC; TD Securities estimates

**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**



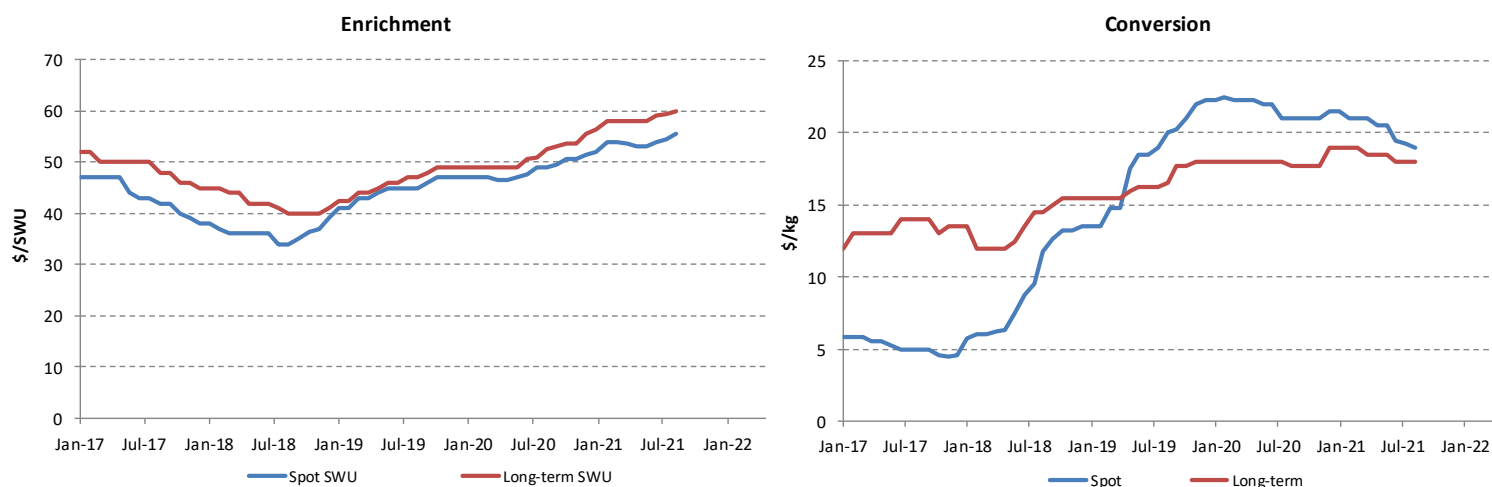
Source: UxC; TD Securities estimates

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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
<b>Mine Supply - Western World (Mib U3O8)</b>									
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
<b>Total World Mine Supply (Mib U3O8)</b>	<b>154</b>	<b>138</b>	<b>140</b>	<b>125</b>	<b>126</b>	<b>132</b>	<b>145</b>	<b>154</b>	<b>158</b>
YoY % change	-7.6%	-10.2%	1.7%	-10.9%	0.7%	5.3%	9.1%	6.8%	2.6%
<b>Secondary Supply</b>									
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
<b>Total Secondary Supply (Mib)</b>	<b>27</b>	<b>24</b>	<b>26</b>	<b>24</b>	<b>22</b>	<b>21</b>	<b>21</b>	<b>21</b>	<b>21</b>
Secondary supply as % of global reactor demand	16%	14%	15%	13%	12%	12%	12%	11%	11%
<b>Mobilization of Commercial Inventory</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>
<b>Total Supply</b>	<b>187</b>	<b>169</b>	<b>173</b>	<b>156</b>	<b>155</b>	<b>161</b>	<b>173</b>	<b>183</b>	<b>187</b>
<b>Total World Demand</b>									
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)	-	-	-	-	-	-	-	-	-
<b>Total World Demand (Mib U3O8)</b>	<b>169</b>	<b>174</b>	<b>176</b>	<b>177</b>	<b>181</b>	<b>182</b>	<b>184</b>	<b>186</b>	<b>188</b>
YoY % change	1.7%	2.7%	1.2%	0.4%	2.7%	0.2%	1.0%	1.5%	1.0%
<b>Supply / Demand Balance (Mib)</b>	<b>18</b>	<b>-5</b>	<b>-3</b>	<b>-21</b>	<b>-27</b>	<b>-21</b>	<b>-11</b>	<b>-4</b>	<b>-2</b>
<b>Spot Uranium Price (US\$/lb U3O8)</b>	<b>\$22.12</b>	<b>\$24.82</b>	<b>\$25.94</b>	<b>\$29.52</b>	<b>\$31.94</b>	<b>\$36.00</b>	<b>\$38.00</b>	<b>\$40.00</b>	<b>\$45.00</b>

\* 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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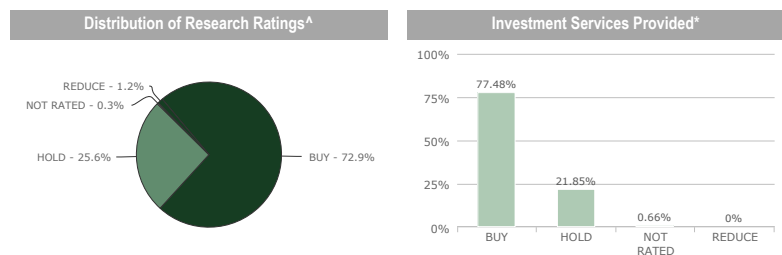
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Current as of: August 31, 2021

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