

# Industry Note

Equity Research

April 9, 2020

## Metals & Minerals

### Uranium Mine Supply Contracts on COVID-19 Restrictions

#### *Restart Decisions (When they Come) may be Commercially Driven*

#### *Uranium Price Deck Increased*

- **Kazakh-state uranium miner, Kazatomprom (KAP) announced on April 7 that it will reduce uranium production at its facilities over the next three months due to travel and other restrictions related to the COVID-19 crisis.** Management expects that 2020 uranium production will be reduced by 4,000tU (~10.4mmlbs U3O8) from previous projections of 22,750tU to 22,800tU, on a 100% basis. The reduced production level is not expected to affect KAP's 2020 sales obligations; the company has informed all of its customers that their full contractual requirements will be met. Management recently noted that the company has ~8,500tU in inventory.
- **Taken together with previous production reductions announced by Cameco and in Namibia, we estimate that ~12.8mmlbs of U3O8 primary mine production has been removed from the market so far, or ~9.5% of the primary mine supply forecast we had at the start of this year.** We believe that the supply cuts announced so far will result in the 2020 uranium market moving into a deficit of ~24mmlbs U3O8 — assuming that uranium demand remains relatively unchanged. We expect that demand should remain mostly inelastic despite weaker global electricity demand because of the base-load nature of nuclear power generation.
- **Inventory draw-down accelerated.** The always unanswerable question in the uranium market is: How much surplus material is there available to purchase? Over the past several years, we believe that the fungible surplus inventory has hovered in the range of between 60-80mmlbs U3O8 and was being drawn down at a relatively modest rate of anywhere between 5-10mmlbs/year. If our 24mmlbs supply deficit estimate is correct, it would mark a notable acceleration in inventory draw-down and bring forward supply tightness. We note that inventory tends to become less available as prices increase — with holders less inclined to sell in anticipation of higher prices.
- **Cameco has noted that it may have to increase its uranium purchasing activity this year if the shutdown of Cigar Lake extends beyond the current four-week time-frame.** We expect that other uranium producers may also have to purchase material in the market to meet their sales commitments as a result of the Cigar Lake closure and now the reduced production from Kazakhstan. The uranium spot price is reflecting the expected increased buying requirements, with March transactions reaching a monthly record of 76 deals and total volume of 9.0mmlbs.
- **Uranium price deck increased.** The spot uranium price increased to US\$29.18/lb on Wednesday, up more than 20% from recent lows of US\$24.00/lb. On the back of higher spot prices and tightening of supply, we have increased our price deck. We are now forecasting US\$28.94/lb for 2020 (previously US\$25.13); US \$31/lb for 2021 (previously US\$27/lb), and US\$33/lb for 2022 (previously US\$30/lb).

#### Greg Barnes

416 983 9588  
[greg.barnes@tdsecurities.com](mailto:greg.barnes@tdsecurities.com)

#### Craig Hutchison, P. Eng

416 982 3474  
[craig.hutchison@tdsecurities.com](mailto:craig.hutchison@tdsecurities.com)

#### Derick Ma, CFA, CPA, CA

416 308 3404  
[Derick.Ma@tdsecurities.com](mailto:Derick.Ma@tdsecurities.com)

#### Joel Brown, P.Eng. (Associate)

416 307 8932  
[joel.brown@tdsecurities.com](mailto:joel.brown@tdsecurities.com)

#### Laura Baker, (Associate)

416-308-2360  
[Laura.A.Baker@tdsecurities.com](mailto:Laura.A.Baker@tdsecurities.com)

# Industry Note

Equity Research

April 9, 2020

## Exhibit 1. Revised Target Prices

Company	Sym	Share Price	Target Price		Return to Tgt.	Rec.		Analyst
			Old	New		Old	New	
Cameco Corp.	CCO, CCJ	12.63	10.50	14.00 ↑	11.5%	HOLD	HOLD	GB
Denison Mines Corp.	DML, DNN	0.43	-----		Restricted	-----		CH
Nexgen Energy Ltd.	NXE	1.33	2.50	2.75 ↑	106.8%	Spec BUY	Spec BUY	CH
Uranium Participation Corp.	U	4.36	4.25	5.00 ↑	14.7%	HOLD	HOLD	CH

Source: ThomsonOne, TD Securities Inc.

## Exhibit 2. Revised Uranium Price Deck

	Q1/20A	Q2/20E	Q3/20E	Q4/20E	2020E	2021E	2022E	2023E	2024E	2025/LT
Old	25.00	24.50	25.00	26.00	25.13	27.00	30.00	35.00	40.00	45.00
<b>New</b>	<b>24.77</b>	<b>31.00</b>	<b>30.00</b>	<b>30.00</b>	<b>28.94</b>	<b>31.00</b>	<b>33.00</b>	<b>35.00</b>	<b>40.00</b>	<b>45.00</b>
% Change	-0.9%	26.5%	20.0%	15.4%	15.2%	14.8%	10.0%	0.0%	0.0%	0.0%

Source: TD Securities Inc. estimates

**Reduced primary production and weaker credit conditions have made the uranium market more challenging for traders.** Uranium traders have been very active in the uranium market over the past several years, providing material to utilities in the “mid-term” market (material for delivery in the 1–3-year time-frame). We understand that the traders have been effectively supplying this material by way of a carry trade — committing to deliver material 1–3 years forward that they do not have on hand but will source from utilities/producers who are selling into the spot market. We believe that some traders may have been caught short by the recent production curtailments and could be struggling to find material to meet contractual commitments.

**Uranium production restart decisions could be commercially motivated — but governments might have a say too.** For some time, we have believed that additional uranium supply needed to be removed from the market to pull forward fundamental supply tightness. The COVID-19 restrictions and the resulting supply restrictions may be the trigger that the uranium market needed to accelerate the rebalancing of supply and demand. Depending on how market supply/demand balances evolve over the next several months, we would not be surprised to see supply curtailments extended even when COVID-19 travel and social distancing measures start to be relaxed. If spot and term prices trend higher and utilities show more motivation to enter into higher-priced long-term contracts (in the name of security of supply), we expect that the reversal of current supply curtailments will be contingent on commercial considerations to a greater or lesser extent — although these decisions could also be motivated by governments anxious to get people back to work.

**Cameco has announced that it will temporarily close its Blind River uranium refinery and suspend production at the Port Hope UF6 conversion plant for four weeks.** Given that the duration of the suspension is only four weeks at this point, we do not anticipate an impact on Cameco’s fuel services business. That notwithstanding, we believe that this move could increase utility uncertainty with respect to the uranium fuel supply chain.

**Returning curtailed capacity will have to be carefully managed.** The lack of transparency in the uranium market (particularly with respect to the level of available

# Industry Note

Equity Research

April 9, 2020

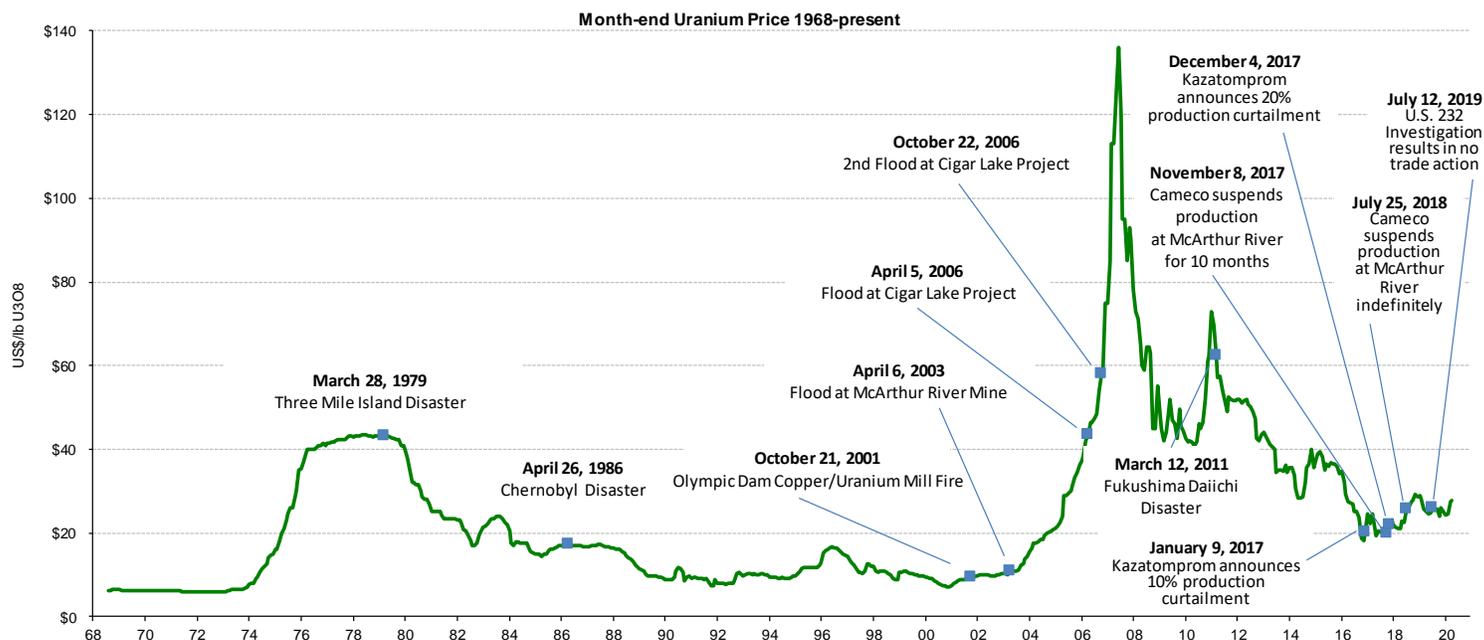
inventories), the complacency of utilities that believe that there will always be plenty of uranium available (although that could be changing), and the number of false starts we have experienced over the past decade mean that we remain cautious. We also are aware that there is a substantial volume of latent primary uranium supply capacity (e.g. McArthur River) — bringing that supply back on line in a measured way so as not to return to a significantly oversupplied market will have to be carefully managed.

### Exhibit 3. Uranium Mine Suspension Tracker

Operation	Company	Location	Annual Production (mm lbs)	Percent of Global Annual Mine Production	Suspension	Potential Lost Production (mm lbs)
Cigar Lake	Cameco/Orano	Canada	18	12.5%	28 days	1.5
Rossing	CNNC/CGN	Namibia	4	2.8%	21 days	0.25
Husab	CNNC/CGN	Namibia	10	6.9%	21 days	0.6
Ranger (1)	ERA	Australia	3.1	2.2%	n/a	n/a
Kazakh ISR (2)	Kazatomprom	Kazakhstan	59	41.0%	3 months	10.4

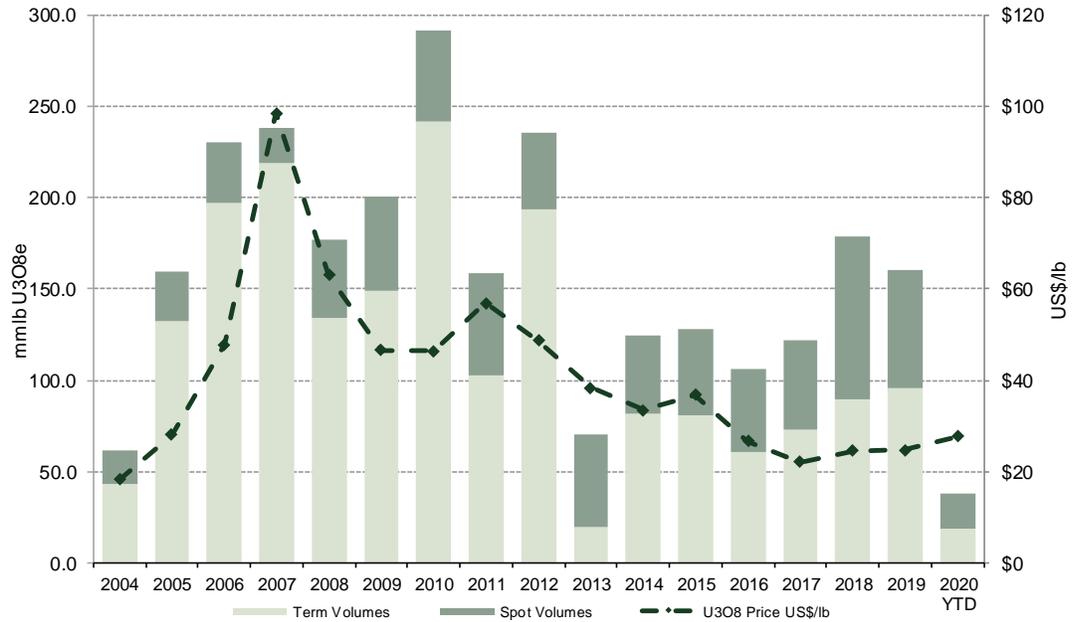
**Notes:**  
 (1) ERA has maintained 2020 production guidance at 2.65-3.53 mm lbs U3O8, but travel restriction could impact production  
 Source: Company reports, UxC, TD Securities Inc. estimates

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



Source: UxC, companies, TD Securities Inc.

**Exhibit 5. Term Contracting Hit Record Levels Following 2006 Cigar Lake Floods**



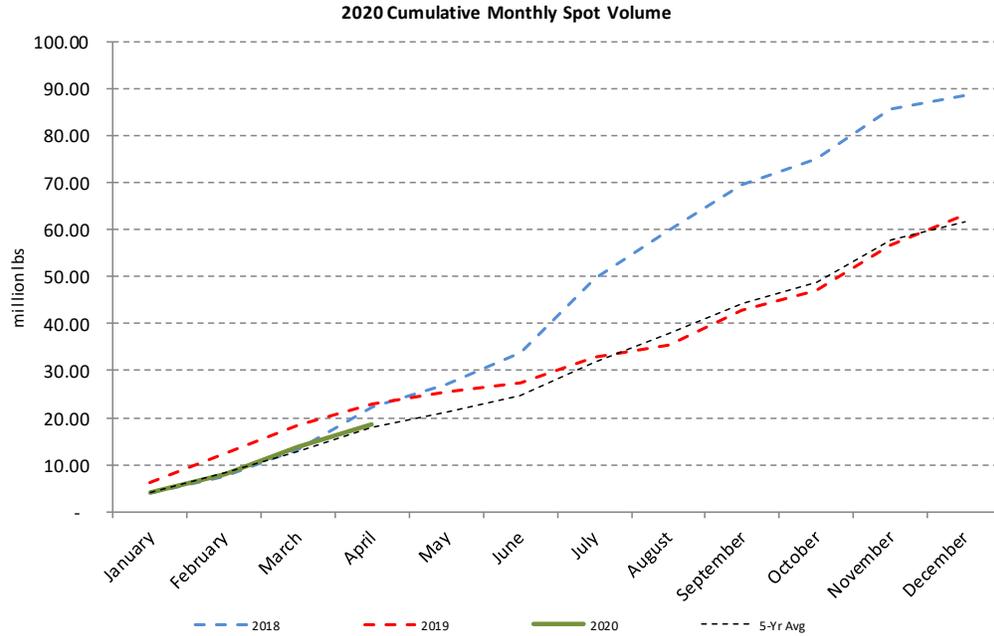
Source: UxC, TD Securities Inc.

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



Source: UxC

**Exhibit 7. Cumulative Monthly Spot Market Volume**



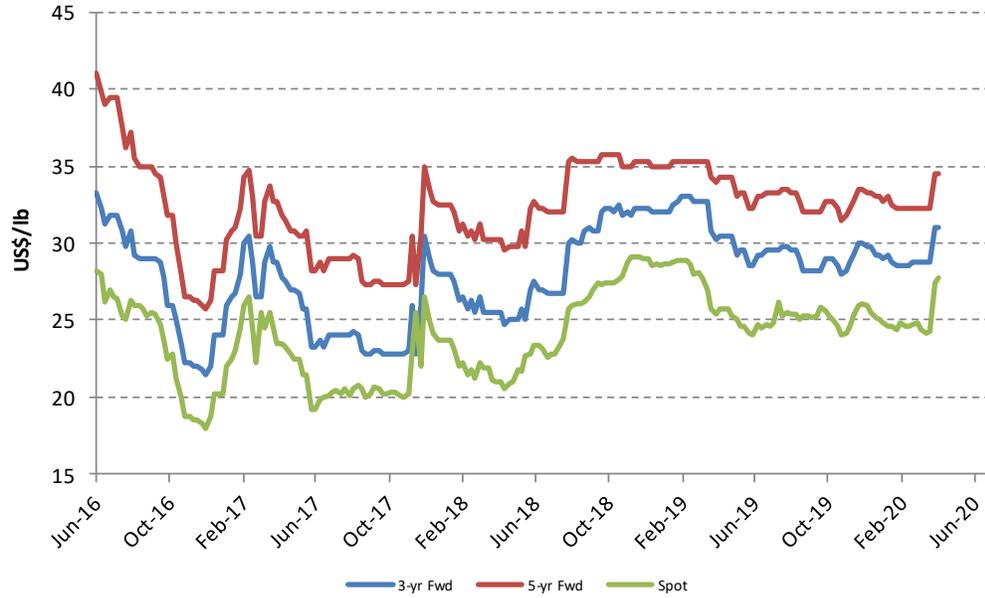
Source: UxC

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



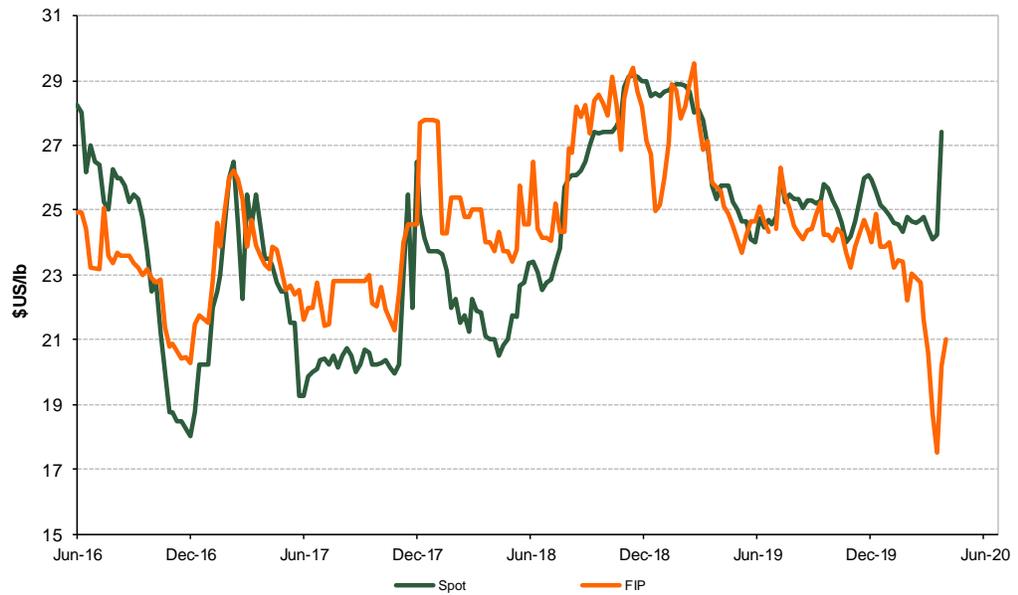
Source: UxC

**Exhibit 9. Uranium Prices — Spot, 3-year Forward and 5-year Forward**



Source: UxC

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



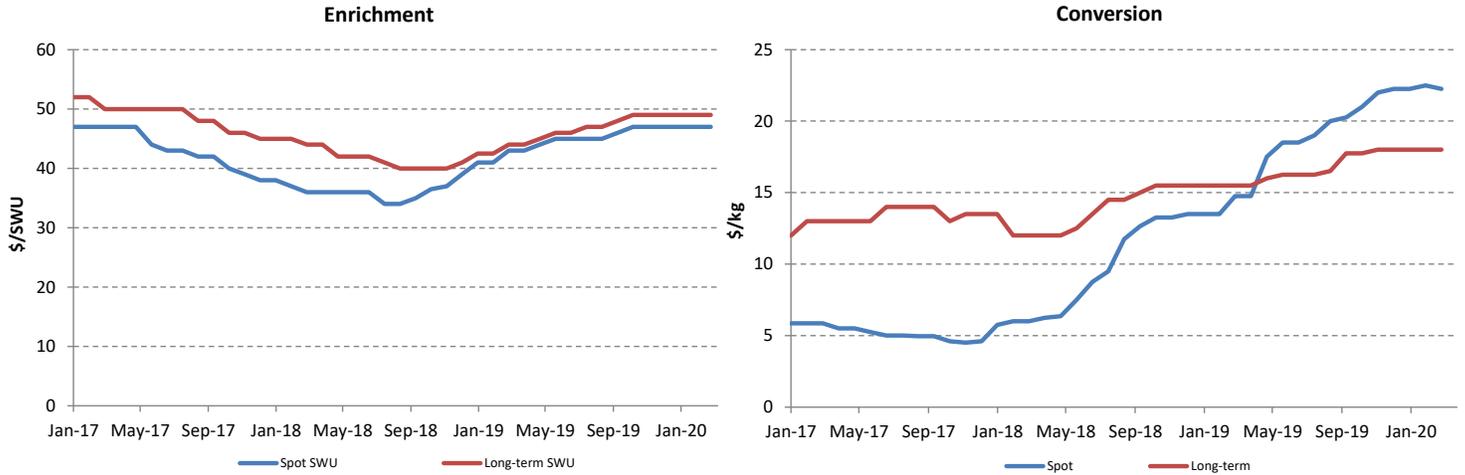
Source: UxC

# Industry Note

Equity Research

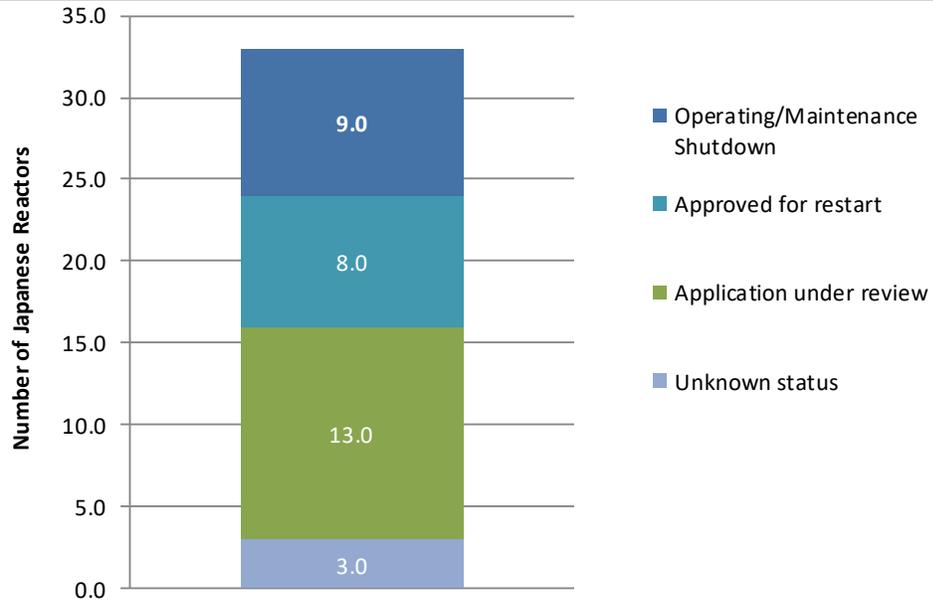
April 9, 2020

**Exhibit 11. Monthly SWU and Conversion Pricing**



Source: UxC

**Exhibit 12. Japanese Reactor Status**



Source: UxC, Bloomberg, World Nuclear Association

# Industry Note

Equity Research

April 9, 2020

## Exhibit 13. TD Securities Uranium Supply/Demand Model

	2012	2013	2014	2015	2016	2017	2018	2019	2020E	2021E	2022E	2023E	2024E
<b>Mine Supply - Western World (mm lbs U3O8)</b>													
Total Mine Supply - Western World	90	93	85	106	104	100	83	85	80	82	82	86	88
Net Eastern Mine Supply (lbs U3O8)	59	60	60	57	62	54	54	55	44	55	60	60	66
<b>Total World Mine Supply (mmlb U3O8)</b>	<b>150</b>	<b>153</b>	<b>145</b>	<b>163</b>	<b>166</b>	<b>154</b>	<b>138</b>	<b>140</b>	<b>124</b>	<b>137</b>	<b>142</b>	<b>146</b>	<b>154</b>
YoY % change	5.9%	2.4%	-5.3%	12.2%	2.1%	-7.6%	-10.2%	1.7%	-11.6%	10.4%	3.8%	2.6%	5.9%
<b>Secondary Supply</b>													
Global underfeeding and tails re-enrichment*	5	15	20	20	18	19	18	18	16	16	15	15	14
Mixed Oxide Fuel (MOX)*	10	8	8	4	5	5	5	6	6	6	6	6	7
US government sales (DOE Proposed)*	5	8	8	7	4	3	2	2	1	0	0	0	0
Additional Russian secondary supply*	24	24	5	2	2	0	0	0	0	0	0	0	0
Other			0	0	0	0	0	0	0	0	0	0	0
<b>Total Secondary Supply (mmlb)</b>	<b>43</b>	<b>55</b>	<b>41</b>	<b>34</b>	<b>29</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>
Secondary supply as % of global reactor demand	28%	32%	26%	21%	17%	16%	14%	15%	13%	12%	12%	12%	11%
<b>Mobilization of Commercial Inventory</b>			4	8	7	7	7	7	7	7	7	7	7
<b>Total Supply</b>	<b>193</b>	<b>208</b>	<b>190</b>	<b>205</b>	<b>202</b>	<b>187</b>	<b>169</b>	<b>173</b>	<b>155</b>	<b>166</b>	<b>170</b>	<b>174</b>	<b>183</b>
<b>Total World Demand</b>													
Total World Nuclear Generating Capacity (MWe) *				345,377	351,271	358,819	368,571	372,978	379,182	384,508	385,211	389,242	394,906
Uranium requirements per MWe				464	474	472	472	472	472	472	472	472	472
Uranium demand (mmlb)				160	167	169	174	176	179	181	182	184	186
First Core Requirement (2 year lead)				-	-	-	-	-	-	-	-	-	-
<b>Total World Demand (mmlbs U3O8)</b>	<b>155</b>	<b>170</b>	<b>155</b>	<b>160</b>	<b>167</b>	<b>169</b>	<b>174</b>	<b>176</b>	<b>179</b>	<b>181</b>	<b>182</b>	<b>184</b>	<b>186</b>
YoY % change	0.0%	9.7%	-8.8%	3.4%	3.9%	1.7%	2.7%	1.2%	1.7%	1.4%	0.2%	1.0%	1.5%
<b>Supply / Demand Balance (mmlb)</b>	<b>38</b>	<b>38</b>	<b>35</b>	<b>44</b>	<b>35</b>	<b>18</b>	<b>-5</b>	<b>-3</b>	<b>-24</b>	<b>-16</b>	<b>-11</b>	<b>-10</b>	<b>-4</b>
<b>Spot Uranium Price (US\$/lb U3O8)</b>	<b>\$48.73</b>	<b>\$38.57</b>	<b>\$33.60</b>	<b>\$36.89</b>	<b>\$26.57</b>	<b>\$22.12</b>	<b>\$24.82</b>	<b>\$25.94</b>	<b>\$28.94</b>	<b>\$31.00</b>	<b>\$33.00</b>	<b>\$35.00</b>	<b>\$40.00</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, TD Securities Inc.

# Industry Note

Equity Research

April 9, 2020

## TD Estimate Revisions

### Exhibit 14. Revised Target Prices and Recommendations

Company	Sym	Share Price	Target Price		Return to Tgt.	Rec.		Analyst
			Old	New		Old	New	
Cameco Corp.	CCO, CCJ	12.63	10.50	<b>14.00</b> ↑	11.5%	HOLD	<b>HOLD</b>	GB
Denison Mines Corp.	DML, DNN	0.43	-----		Restricted	-----		CH
Nexgen Energy Ltd.	NXE	1.33	2.50	<b>2.75</b> ↑	106.8%	Spec BUY	<b>Spec BUY</b>	CH
Uranium Participation Corp.	U	4.36	4.25	<b>5.00</b> ↑	14.7%	HOLD	<b>HOLD</b>	CH

Source: Thomson One, TD Securities Inc.

### Exhibit 15. TD Valuation Target Multiple Assumptions

Company	Target Price	Rec.	Current Valuation					Previous Valuation					Analyst	
			EV/EBITDA			NAV		EV/EBITDA			NAV			
			Weight	Multiple	Year	Weight	Multiple	Weight	Multiple	Year	Weight	Multiple		
Cameco Corp.	14.00	HOLD				100%	1.20x				100%	0.90x		GB
Denison Mines Corp.			-----					Restricted					CH	
Nexgen Energy Ltd.	2.75	Spec BUY				100%	0.90x				100%	0.80x		CH
Uranium Participation Corp.	5.00	HOLD				100%	0.95x				100%	0.95x		CH

Source: TD Securities Inc.

### Exhibit 16. NAV Summary

Company	Target Price	Rec.	NAV-10% (\$/sh)		% Ch.	Analyst
			Old	New		
Cameco Corp.	14.00	HOLD	11.47	<b>11.50</b> ↑	0.2%	GB
Denison Mines Corp.			-----			CH
Nexgen Energy Ltd.	2.75	Spec BUY	3.23	<b>3.20</b> ↓	-0.9%	CH
Uranium Participation Corp.	5.00	HOLD	4.55	<b>5.21</b> ↑	14.5%	CH

Source: TD Securities Inc.

### Exhibit 17. Earnings, Cash Flow, and EBITDA Estimates

Company	EPS				CFPS				EBITDA (\$mm)				Analyst
	2020E		2021E		2020E		2021E		2020E		2021E		
	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New	
Cameco Corp.	(0.21)	<b>(0.17)</b> ↑	(0.25)	<b>(0.21)</b> ↑	(0.11)	<b>0.01</b> ↑	0.16	<b>0.20</b> ↑	151	<b>183</b> ↑	76	<b>81</b> ↑	GB
Uranium Participation Corp. (1)	(0.04)	<b>(0.04)</b>	(0.04)	<b>(0.02)</b> ↑	(0.04)	<b>(0.04)</b>	(0.04)	<b>(0.02)</b> ↑	(5)	<b>(5)</b>	(5)	<b>(5)</b>	CH

(1) UPC has a February year-end (i.e. 2020E reflects FY2021E ending Feb. 28, 2021).

Source: Company, TD Securities Inc.

## Justification of and Key Risks to Target Prices

## Exhibit 18. Justification of and Key Risks to Target Prices

Company Name and Ticker	Target Price	Rec.	Risk Rating	Justification of Target Price	Key Risks to Target Price
<b>Large Cap. Producers</b>					
Cameco Corp. (CCO-T, CCJ-N)	14.00	HOLD	HIGH	Our target price is based upon a 1.20x multiple to our NAV-10% (100% weighting).	The main risks facing the company include forecast, financial, technical, and political risks. Among other things, these include risks related to uranium prices, input costs, and fuel prices; the governing fiscal and legislative regimes; the timing of key developments; market conditions; capital and operating costs; foreign exchange rates; resources and reserves; operating parameters; permitting; environment; and staffing and key personnel retention. As Cameco is primarily a uranium mining company, it faces heightened environmental risks relative to other mining companies. The tax dispute with the CRA, which is now undergoing an appeals process and COVID-19 driven operational closures are an additional risk factors.
NexGen Energy Ltd. (NXE-T)	2.75	Spec BUY	SPEC	Our target price is based upon a 0.9x multiple to our NAV-12% (100% weighting).	Relative to the other companies in our equity coverage universe, we believe that an investment in NexGen Energy Ltd. is subject to a SPECULATIVE level of risk. Our recommendation is subject to forecast, financial, technical, political, and deposit-size risks. These include risks related to uranium prices; fuel cost; the governing fiscal and legislative regimes in the countries it operates in; the timing of key developments; market conditions; capital and operating costs; foreign exchange rates; resources; access to capital; operating parameters; permitting; environment; indigenous people; and staffing and key personnel retention.
Uranium Participation Corp. (U-T)	5.00	HOLD	HIGH	Our target price is based upon a 0.95x multiple to our forward NAVPS (100% weighting).	The key risks to our target price include risks related to uranium and uranium hexafluoride supply, demand, and price; financial risks (including those relating to the cost and availability of financing); foreign exchange rate risks; forecast risks; market risks; uranium loan risk; uranium storage facility risks; political risks, including legal and fiscal regimes; security risks (including potential for violence and access disruptions); title, litigation, access, and key personnel retention risks; as well as environmental risks, among others. Company-specific risks include the potential for the Manager to terminate its Management Service Agreement.

Source: TD Securities Inc.

# Industry Note

## Equity Research

April 9, 2020

### TD Securities Equity Research Disclosures

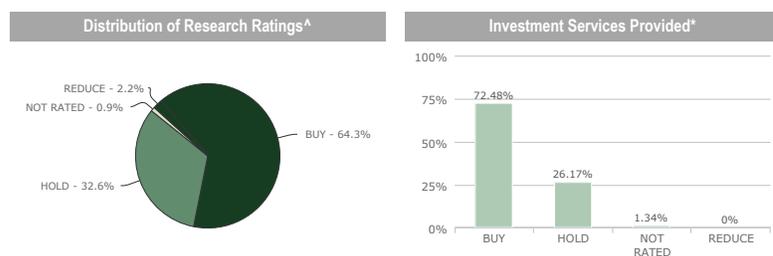
Company	Ticker	Disclosures
Cameco Corp.	CCO-T   CCJ-N	2, 4, 9
NexGen Energy Ltd.	NXE-T	9
Uranium Participation Corp.	U-T	n/a

1. TD Securities Inc., TD Securities (USA) LLC or an affiliated company has managed or co-managed a public offering of securities within the last 12 months with respect to the subject company.
2. TD Securities Inc., TD Securities (USA) LLC or an affiliated company has received compensation for investment banking services within the last 12 months with respect to the subject company.
3. TD Securities Inc., TD Securities (USA) LLC or an affiliated company expects to receive compensation for investment banking services within the next three months with respect to the subject company.
4. TD Securities Inc. or TD Securities (USA) LLC has provided investment banking services within the last 12 months with respect to the subject company.
5. A long position in the securities of the subject company is held by the research analyst, by a member of the research analyst's household, or in an account over which the research analyst has discretion or control.
6. A short position in the securities of the subject company is held by the research analyst, by a member of the research analyst's household, or in an account over which the research analyst has discretion or control.
7. A long position in the derivative securities of the subject company is held by the research analyst, by a member of the research analyst's household, or in an account over which the research analyst has discretion or control.
8. A short position in the derivative securities of the subject company is held by the research analyst, by a member of the research analyst's household, or in an account over which the research analyst has discretion or control.
9. TD Securities Inc. and/or an affiliated company is a market maker, or is associated with the specialist that makes a market, in the securities of the subject company.
10. TD Securities Inc. and/or affiliated companies own 1% or more of the equity securities of the subject company.
11. A partner, director or officer of TD Securities Inc. or TD Securities (USA) LLC, or a research analyst involved in the preparation of this report has, during the preceding 12 months, provided services to the subject company for remuneration.
12. This security has Subordinate voting shares.
13. This security has Restricted voting shares.
14. This security has Non-voting shares.
15. This security has Variable voting shares.
16. This security has Limited voting shares.

### Additional Important Disclosures

#### Price Graphs

Full disclosures for all companies covered by TD Securities can be viewed at <https://www.tdsresearch.com/equities/welcome.important.disclosure.action> by TD Securities' institutional equity clients.



Current as of: April 9, 2020

<sup>^</sup> Percentage of subject companies under each rating category: BUY (covering ACTION LIST BUY, BUY and SPECULATIVE BUY ratings), HOLD, and REDUCE (covering TENDER and REDUCE ratings).

<sup>\*</sup> Percentage of subject companies within each of the three categories (BUY, HOLD, and REDUCE) for which TD Securities Inc. has provided investment banking services within the last 12 months.

### Definition of Research Ratings

**ACTION LIST BUY:** The stock's total return is expected to exceed a minimum of 15% (with higher thresholds for less liquid, more risky securities) over the next 12 months and it is a top pick in the Analyst's sector.

**BUY:** The stock's total return is expected to exceed a minimum of 10% (with higher thresholds for less liquid, more risky securities) over the next 12 months.

# Industry Note

## Equity Research

April 9, 2020

**SPECULATIVE BUY:** The stock's total return is expected to exceed a minimum of 30% over the next 12 months (with higher thresholds for less liquid securities); however, there is material event risk associated with the investment that could result in a significant loss.

**HOLD:** The stock's total return is expected to be between 0% and 10%, (with higher thresholds for less liquid, more risky securities) over the next 12 months.

**TENDER:** Investors are advised to tender their shares to a specific offer for the company's securities or to support a proposed combination reflecting our view that a superior offer is not forthcoming.

**REDUCE:** The stock's total return is expected to be negative over the next 12 months.

**SUSPENDED:** Due to evolving circumstances, we can no longer generate what we consider a defensible target price and rating at the current time.

**UNDER REVIEW:** Our rating is under review pending additional information and/or analysis. The prior rating should not be relied on.

Overall Risk Rating in order of increasing risk: Low (6.6% of coverage universe), Medium (38.7%), High (46.2%), Speculative (8.5%)

### Research Dissemination Policy

TD Securities makes its research products available in electronic and/or printed formats. If there are any subsequent material changes to the reports it publishes, TD Securities will as soon as practicable distribute such reports with the relevant changes to its institutional clients who are entitled to receive them. Entitled institutional clients may also receive our research via third-party platforms including, but not limited to, Bloomberg, FactSet, Refinitiv, and S&P Capital IQ. All research is available by password to entitled institutional clients at <https://www.tdsresearch.com/equities>. TD Securities may also update proprietary models; these models may be obtained by entitled institutional clients by contacting the research analyst directly. There is no planned frequency of updates to these models.

### Analyst Certification

Each analyst of TD Securities Inc. whose name appears on page 1 of this research report hereby certifies that (i) the recommendations and opinions expressed in the research report accurately reflect the research analyst's personal views about any and all of the securities or issuers discussed herein that are within the analyst's coverage universe and (ii) no part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the provision of specific recommendations or views expressed by the research analyst in the research report.

### Disclaimer

This material is for general informational purposes only and is not investment advice nor does it constitute an offer, recommendation or solicitation to buy or sell a particular financial instrument. It does not have regard to the specific investment objectives, financial situation, risk profile or the particular needs of any specific person who may receive this material. No representation is made that the information contained herein is accurate in all material respects, complete or up to date, nor that it has been independently verified by TD Securities. Recipients of this analysis or report are to contact the representative in their local jurisdiction with regards to any matters or questions arising from, or in connection with, the analysis or report.

Historic information regarding performance is not indicative of future results and investors should understand that statements regarding future prospects may not be realized. All investments entail risk, including potential loss of principal invested. Performance analysis is based on certain assumptions, the results of which may vary significantly depending on the modelling inputs assumed. This material, including all opinions, estimates and other information, constitute TD Securities' judgment as of the date hereof and is subject to change without notice. The price, value of and income from any of the securities mentioned in this material can fall as well as rise. Any market valuations contained herein are indicative values as of the time and date indicated. Such market valuations are believed to be reliable, but TD Securities does not warrant their completeness or accuracy. Different prices and/or valuations may be available elsewhere and TD Securities suggests that valuations from other sources be obtained for comparison purposes. Any price or valuation constitutes TD Securities' judgment and is subject to change without notice. Actual quotations could differ subject to market conditions and other factors.

TD Securities disclaims any and all liability relating to the information herein, including without limitation any express or implied representations or warranties for, statements contained in, and omissions from, the information. TD Securities is not liable for any errors or omissions in such information or for any loss or damage suffered, directly or indirectly, from the use of this information. TD Securities may have effected or may effect transactions for its own account in the securities described herein. No proposed customer or counterparty relationship is intended or implied between TD Securities and a recipient of this document.

TD Securities makes no representation as to any tax, accounting, legal or regulatory issues. Investors should seek their own legal, financial and tax advice regarding the appropriateness of investing in any securities or pursuing any strategies discussed herein. Investors should also carefully consider any risks involved. Any transaction entered into is in reliance only upon the investor's judgment as to financial, suitability and risk criteria. TD Securities does not hold itself out to be an advisor in these circumstances, nor do any of its representatives have the authority to do so.

The information contained herein is not intended for distribution to, or use by, any person in any jurisdiction where such distribution or use would be contrary to applicable law or regulation or which would subject TD Securities to additional licensing or registration requirements. It may not be copied, reproduced, posted, transmitted or redistributed in any form without the prior written consent of TD Securities.

If you would like to unsubscribe from our email distribution lists at any time, please contact your TD Securities Sales Contact. If you are located in Europe, Asia, Australia or New Zealand you may also unsubscribe by emailing us at [Privacy.EAP@tdsecurities.com](mailto:Privacy.EAP@tdsecurities.com).

You can access our Privacy Policy here ([http://www.tdsecurities.com/tds/content/AU\\_PrivacyPage](http://www.tdsecurities.com/tds/content/AU_PrivacyPage)).

**Australia:** If you receive this document and you are domiciled in Australia, please note that this report is intended to be issued for general information purposes only and distributed through the Toronto Dominion Australia Limited ("TDAL"). TDAL does not hold itself out to be providing financial advice in these circumstances. TD Securities is a trademark and represents certain investment dealing and advisory activities of Toronto-Dominion Bank and its subsidiaries, including TDAL. The Toronto-Dominion Bank is not an authorized deposit-taking or financial services institution in Australia. TDAL is a holder of an Australian Financial Services License (404698) and is regulated by the Australian Securities and Investments Commission.

**Canada:** Canadian clients wishing to effect transactions in any security discussed herein should do so through a qualified salesperson of TD Securities or TD Securities Inc. TD Securities Inc. is a member of the Canadian Investor Protection Fund.

**China, India and South Korea:** Insofar as the document is received by any persons in the People's Republic of China ("PRC"), India and South Korea, it is intended only to be issued to persons who have the relevant qualifications to engage in the investment activity mentioned in this document. The recipient is responsible for obtaining all relevant government regulatory

# Industry Note

## Equity Research

April 9, 2020

approvals/licenses themselves, and represents and warrants to TD Bank that the recipient's investments in those securities do not violate any law or regulation, including, but not limited to, any relevant foreign exchange regulations and/or overseas investment regulations. The Toronto-Dominion Bank has a representative office in Shanghai, Mumbai and Seoul which should be contacted for any general enquiry related to The Toronto-Dominion Bank or its business. However, neither any of the Toronto-Dominion Bank offshore branches/subsidiaries nor its representative offices are permitted to conduct business within the borders of the PRC, India and South Korea. In locations in Asia where the Bank does not hold licenses to conduct business in financial services, it is not our intention to, and the information contained in this document should not be construed as, conducting any regulated financial activity, including dealing in, or the provision of advice in relation to, any regulated instrument or product. This publication is for general information only, without addressing any particular needs of any individual or entity, and should not be relied upon without obtaining specific advice in the context of specific circumstances.

**Hong Kong SAR (China):** This document, which is intended to be issued in Hong Kong SAR (China) ("Hong Kong") only to Professional Investors within the meaning of the Securities and Futures Ordinance (the "SFO") and the Securities and Futures (Professional Investor) Rules made under the SFO, has been distributed through Toronto-Dominion Bank, Hong Kong Branch, which is regulated by the Hong Kong Monetary Authority.

**Japan:** For Japanese residents, please note that if you have received this document from Toronto-Dominion Bank entities based outside Japan, it is being provided to qualified financial institutions ("QFI") only under a relevant exemption to the Financial Instruments and Exchange Act.

If you have received this document from TD Securities (Japan) Co., Ltd., it is being provided only to institutional investors. TD Securities (Japan) Co., Ltd. is regulated by the Financial Services Agency of Japan and is distributing this document in Japan as a Type 1 Financial Instruments Business Operator registered with the Kanto Local Finance Bureau under registration number, Kinsho 2992, and a member of Japan Securities Dealers Association.

**New Zealand:** The Toronto-Dominion Bank is not a "registered bank" in New Zealand under the Reserve Bank Act 1989.

**Singapore:** This report is distributed in Singapore by The Toronto-Dominion Bank, Singapore Branch, and recipients in Singapore of this report are to contact The Toronto-Dominion Bank, Singapore Branch in respect of any matters arising from, or in connection with, this report. The Toronto-Dominion Bank, Singapore Branch is regulated by the Monetary Authority of Singapore. Where this report is issued or promulgated in Singapore, it is only intended for distribution to a person who is an accredited investor, expert investor or institutional investor as defined in the Securities and Futures Act (Cap. 289), or the Securities and Futures (Prescribed Specific Classes of Investors) Regulations 2005, or the Securities and Futures (Classes of Investors) Regulations 2018 issued by the Monetary Authority of Singapore.

**United Kingdom and Europe:** This document is prepared, issued or approved for issuance in the UK and Europe by TD Securities Limited in respect of investment business as agent and introducer for TD Bank. The Toronto-Dominion Bank is authorised by the Prudential Regulation Authority and subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. TD Securities Limited is authorised and regulated by the Financial Conduct Authority. Insofar as the document is issued in or to the United Kingdom or Europe, it is intended only to be issued to persons who (i) are persons falling within Article 19(5) ("Investment professional") of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the "Financial Promotion Order"), (ii) are persons falling within Article 49(2)(a) to (d) ("High net worth companies, unincorporated associations, etc.") of the Financial Promotion Order, or (iii) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000) in connection with the issue or sale of any securities may otherwise lawfully be communicated or caused to be communicated. European clients wishing to effect transactions in any security discussed herein should do so through a qualified salesperson of TD Securities Limited. Insofar as the information in this report is issued in the U.K. and Europe, it has been issued with the prior approval of TD Securities Limited.

**United States:** U.S. clients wishing to effect transactions in any security discussed herein must do so through a registered representative of TD Securities (USA) LLC.

TD Securities is a trademark of TD Bank and represents TD Securities Inc., TD Securities (USA) LLC and TD Securities Limited and certain investment and corporate banking activities of TD Bank and its subsidiaries.

© Copyright 2020 The Toronto-Dominion Bank. All rights reserved.

Full disclosures for all companies covered by TD Securities can be viewed at <https://www.tdsresearch.com/equities/welcome.important.disclosure.action>