

Uranium Sector Guide 2020

Uranium equities had a strong start to 2019, rallying +10%-20% by April, led by companies with predominantly U.S. assets (Exhibit 1). The U.S. Department of Commerce Section 232 investigation hype was the main catalyst for U.S. names entering 2019. Then in July, with the 232 report in-hand, President Trump determined that ‘uranium imports do not threaten national security’. Uranium stocks with U.S. assets reversed sharply and were down an average of ~35% by August. A slow steady rebuilding occurred in these names for the remainder of the year, finishing down an average of about 20% YoY, while equities with Canadian-based assets were much less volatile in 2019 and finished the year down just 3%. Uranium spot price was down ~14% in 2019, bottoming in May and trading sideways ever since. Segregating the sector by development stage, ‘Explorers’ were the best performers finishing the year relatively flat, with ‘Producers’ and ‘Developers’ both down ~25% on the year. Within the fuel cycle spanning mining to Enriched Uranium Product (EUP), we saw some interesting movement in intermediary steps. The cost of spot ‘Conversion’ (from U₃O₈ to UF₆) rose nearly 65% in 2019 to its highest level in 12-years, helping UF₆ price (↓0.45% YoY) outperform U₃O₈ and managing an essentially flat year. UF₆ price movements have historically been dominated by a high correlation with the value of its uranium content, rather than Conversion costs, but with uranium prices low and conversion costs growing, this is changing (we’ll explain the mechanics later). Last year also saw a ~21% increase in SWU price while EUP prices moved up 4%. We look at price relationships within the fuel cycle later in this report.

Looking ahead, we believe we are in the early stages of a long-term bull market for the uranium investment theme and recommend investors begin positioning their portfolios by steadily accumulating select names. Previously enacted and expected major supply cuts are starting to erode global inventories with primary production now less than reactor demand. In this report, we provide an update on the sector fundamentals, update our price forecast and provide company profiles of our preferred names to hold for the long run. We also update our model portfolio for the sector including recommended weightings and trailing performance data. We also provide quantitative rankings of the uranium investment universe based on a fusion of fundamental and technical factors that can serve as a basis for short/intermediate-term trades.

Sector Fundamentals Continue to Improve – Position for Inflection Point

- ◆ **Supply/demand balance most bullish in years.** Our bullish view on the uranium sector continues to be driven by the effect of production cuts from the world’s largest suppliers designed to improve the demand-supply balance and increase uranium prices. We believe substantially higher prices will be required to incentivize new mine construction to backfill the accelerating supply shortfall we outline from 2027. In the near-term, the uranium price impact of supply shortfalls is expected to be moderated by the global inventory surplus accumulated over the last 8 years, but we expect prices to build steadily toward “new supply” inventive prices in coming years. We believe that the uranium equity universe will lead the charge higher in anticipation of higher uranium prices, as the sector offers its most compelling value proposition since pre-Fukushima.

Uranium Equity Model Portfolio

- ◆ **Haywood model portfolio.** We present below a list of our preferred uranium names to hold for the long-term (1-3+ years). In this report, we update recommended weightings based on a risk-parity approach and trailing performance statistics relative to the Global X Uranium ETF (URA).

Exhibit 1: Haywood Recommended Core Uranium Holdings

Ticker	Issuer	Rating	Share Price	Target	Expected Return	TTM Return	TTM Volatility
TSX:CCO	Cameco Corporation	Not Rated	\$10.98	N/A	N/A	-31%	26%
TSX:DML	Denison Mines Corp.	Buy	\$0.49	\$1.60	230%	-30%	32%
UUUU	Energy Fuels Inc.	Buy	\$1.50	\$3.50	133%	-47%	62%
TSX:NXE	NexGen Energy Ltd.	Buy	\$1.44	\$6.00	317%	-39%	41%
UEC	Uranium Energy Corp.	Buy	\$0.77	\$2.60	236%	-40%	41%
TSX:U	Uranium Participation Corporation	Buy	\$3.95	\$5.90	49%	-17%	15%
TSX:AZZ	Azarga Uranium Corp.	Buy	\$0.20	\$0.50	N/A	-17%	56%

Source: Haywood Securities Inc., Capital IQ

Quant Rankings for Short/Intermediate-Term Trading

- ◆ **We provide a list of uranium equities ranked in order of attractiveness based on a fusion of fundamental and technical factors.** The factors considered in our quant model include trend, momentum, relative strength, valuation, sentiment, liquidity, volatility, insider and institutional ownership, and capital structure. This list of names can help clients facilitate shorter-term trading ideas, whereas our model portfolio is designed to be a long-term “core” portfolio. Two of the names that rank highly in our quant model and are also in our model portfolio are **Azarga (AZZ-T)** and **Uranium Participation (U-T)**. Both names have been demonstrating early signs of accumulation.

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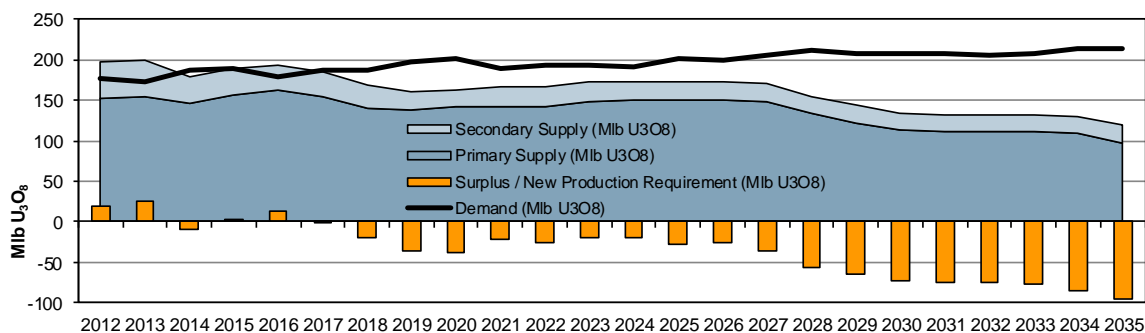


Uranium Commodity Price Forecast and Equity Coverage Universe

Uranium Price Forecast to Accelerate into 2024: Our uranium supply/demand forecast is based on our forward assumptions about the growth in size of the global reactor fleet and the reduction/depletion of existing mine supply. The supply shortfall suggested by the orange bars in Exhibit 2 represents estimated future additional mine production requirements given demand. Our forward price deck is set at a level we believe will incentivize the required investment in mine development to balance the market.

With this report we are tempering our expectations regarding the timing of our forecast uranium price recovery. While 2019 failed to deliver the more substantial increase in uranium benchmark prices we anticipated, we still believe the fundamentals of the sector have dramatically improved over the last 18-24 months and that we are near the beginning of the next utility buying cycle. These factors combine to place upward pressure on uranium prices. We expect that pressure to be somewhat tempered by the inventory overhang built up in an extended period of oversupply. With that, we are shifting forward our uranium price forecast out by a year, modeling a fairly linear, multi-year recovery and reducing our terminal price by US\$5/lb U₃O₈ to US\$65/lb.

Exhibit 2: Haywood Uranium Sector Demand/Supply and Uranium Price Forecast



Commodity Price Forecast	Current	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Spot price (US\$/lb U ₃ O ₈)	\$24.6	\$37	\$26	\$22	\$25	\$26	\$39	\$47	\$55	\$64	\$65	\$65
Long Term price (US\$/lb U ₃ O ₈)	\$32.0	\$47	\$40	\$31	\$31	\$32	\$46	\$55	\$63	\$70	\$65	\$65

Source: Haywood Securities Inc., UxC (current uranium prices only)

The reduction in our terminal uranium price forecast drives modest price target revisions within our coverage space. Changes to targets are outlined in Exhibit 3, along with detailed comments for the more notable changes.

Exhibit 3: Haywood Coverage Universe Target/Rating Changes

			Haywood Estimates							Consensus Data				
			Target Price			Recommendation			Valuation Metric	Implied		Price /		
Company (Ticker)	Analyst	Share Price	Prior	New	Implied Return	Prior	New	Risk		Target	Return	NAV	NAV	
Haywood Coverage	Azarga Uranium (AZZ-T)	CH	\$0.20	\$0.50	\$0.50	150%	BUY	BUY	Very High	0.7x Corp. NAV _(NPV 10%)	\$0.36	80%	\$0.50	0.40x
	Denison Mines (DML-T)	CH	\$0.49	\$2.10	\$1.60	230%	BUY	BUY	Very High	Sum of Parts Corporate NAV _(NPV 10%)	\$1.03	113%	\$1.42	0.34x
	Energy Fuels (UUUU-US)	CH	\$1.52	\$4.80	\$3.50	130%	BUY	BUY	Very High	Sum of Parts Corporate NAV _(NPV 10%)	\$3.64	139%	\$3.34	0.46x
	NexGen Energy (NXE-T)	CH	\$1.43	\$6.00	\$6.00	320%	BUY	BUY	Very High	1.0x Corporate NAV _(NPV 10%)	\$4.76	233%	\$5.28	0.27x
	Uranium Energy (UEC-US)	CH	\$0.78	\$2.90	\$2.60	232%	BUY	BUY	Very High	Sum of Parts Corporate NAV _(NPV 8-10%)	\$2.70	245%	\$2.73	0.29x
	Uranium Participation (U-T)	CH	\$3.97	\$5.90	\$5.90	49%	BUY	BUY	Very High	1.0x Corp. NAV @ US\$37/lb U ₃ O ₈	\$5.49	38%	\$5.17	0.77x
Group Average											141%		0.42x	

All data sourced from S&P Capital IQ, SNL Financial, Bloomberg, Haywood Securities, Company Reports

Source: Haywood Securities Inc., CapitalIQ



Notable Rating/Target Price Changes

Denison Mines (DML-T, Last: \$0.49, Rating: BUY, Target: \$1.60 – *previously \$2.10*)

Our price target reduction is the result of the following:

- ◆ **Revised Commodity Price and Forward Dilution Assumption.** With this report we have reduced our still-bullish target on Denison by ~24%. The impact of the downward revision of our long-term uranium price assumption was responsible for the bulk of the target reduction. Denison shares have come off ~33% from their 2019 high of \$0.77. Our model includes assumptions about future financing price and share issuance. With the decline in share price through H2/19, we have tempered our future financing price assumptions, which resulted in a larger share base and a proportional reduction in NAV per share.

Energy Fuels (UUUU-US/EFR-T, Last: US\$1.52, Rating: BUY, Target: \$3.50 – *previously \$4.80*)

Our price target reduction is the result of the following:

- ◆ **Revised Commodity Price, Forward Dilution Assumption, and Higher Costs Associated with Unsold Vanadium.** With this report we have reduced our still-bullish target on Energy Fuels by ~27%. The impact of the downward revision of our long-term uranium price assumption was a major contributor to the target reduction. In addition, Energy Fuels shares peaked in April 2019 at \$3.77, and have since declined ~56%, with the bulk of the damage occurring in July when President Trump declined to take measures to protect domestic uranium production on the back of the U.S. DOE. Our model includes assumptions about future financing price and share issuance. With the decline in share price through H2/19, we have tempered our future financing price assumptions, which resulted in a larger share base and a proportional reduction in NAV per share. Finally, the rapid decline in vanadium prices just as EFR was moving to increase output led to the decision to stockpile. The production run overheads, expected future selling price, and delayed cash flow adjustments all had some moderating effect on our target.



Uranium Sector Top Picks

Our best bets for 2020: Our top picks for 2020 include one carry over from last year in NexGen (NXE-T, Rating: Buy, Target: \$6.00) and one new addition in Azarga Energy (AZZ-T, Rating: Buy, Target: \$0.50). NexGen controls the best uranium discovery made anywhere in the world in decades, in the ultra-high-grade Arrow deposit, while Azarga has made major project level and regulatory progress in 2019 and we expect it can convert this success into share price performance in 2020.

NexGen (NXE-T, Last: \$1.43, Rating: BUY, Target: \$6.00)

Our Take: NXE remains our top pick in the uranium space due to the disruptive potential of the Arrow deposit, with its massive scale and strong economics. [Link to Most Recent Report](#)

- ◆ **Top Asset:** We view the Arrow deposit as ‘the best undeveloped uranium asset globally and highly strategic’.
- ◆ **Take-out Candidate:** We believe that it is critical for existing major producers to control this deposit because of its disruptive potential and that this is their only option to preserve the value of their existing deposits and maintain their ability to affect price with production curtailments.
- ◆ **Ultra Low-Cost:** The Arrow PFS suggests cash operating costs of US\$4.65/lb vs. a current UxC term price of US\$32/lb, implying an industry leading margin for a tier 1 scale operation.
- ◆ **Catalyst:** Feasibility Study (FS) expected in “mid H1 2020”.
- ◆ **Cash of \$65 million** expected to be sufficient to carry NexGen all the way to a construction decision on Arrow.
- ◆ **Current share price represents a great opportunity to accumulate NXE positions as it continues to de-risk the project in 2020.**

Azarga Uranium (AZZ-T, Last: \$0.20, Rating: BUY, Target: \$0.50)

Our Take: AZZ delivered on many objectives in 2019, hitting some major milestones which de-risked the stock and should convert in share price performance in 2020. [Link to Most Recent Report](#)

- ◆ **Big Permitting De-risking in 2019:** In mid-December 2019 Azarga announced that the Atomic Safety & Licensing Board (ASLB) had dismissed the final contention related to the NRC License issued for its flagship ISR uranium project, Dewey Burdock, SD, USA. While there remains a period of review of the ASLB decision, we believe the dismissal was a major event and will be very difficult to overturn upon review. We expect the stock to re-base as this fog clears.
- ◆ **New PEA in 2019 confirmed our thesis regrading Dewey Burdock’s potential to evolve into a lower-cost, low CAPEX uranium producing operation in the US.** In early December 2019 AZZ published a PEA update showing major improvement over the prior iteration, demonstrating the project’s tolerance for lower prices. With strong economics at our uranium price forecast (*After-Tax NPV/IRR @ US\$55/lb U₃O₈: US\$147.5M / 50%*), it was also reassuring to see a US\$63M NPV_{8%} / 28% IRR (pre-tax) at US\$40/lb. With all-in pre-tax cost of production of US\$29/lb, Dewey Burdock should be a very resilient project capable of generating positive cash-flow even at currently depressed long-term market prices.
- ◆ **Take-out Candidate:** We believe that with the major permitting/regulatory progress and robust PEA delivered in 2019, Azarga would make a very attractive tuck-in acquisition for any of the U.S. producers or neo-producers, especially if there is a political catalyst in the U.S. on the back of the Nuclear Fuel Working group report delivered to the President.
- ◆ **Catalysts:** Expect Azarga to get through the review period regarding the ASLB decision in their favour in mid-December 2019. Once that hurdle is cleared, we expect the Draft EPA permits to be finalized, with State-level permits to follow later in 2020.



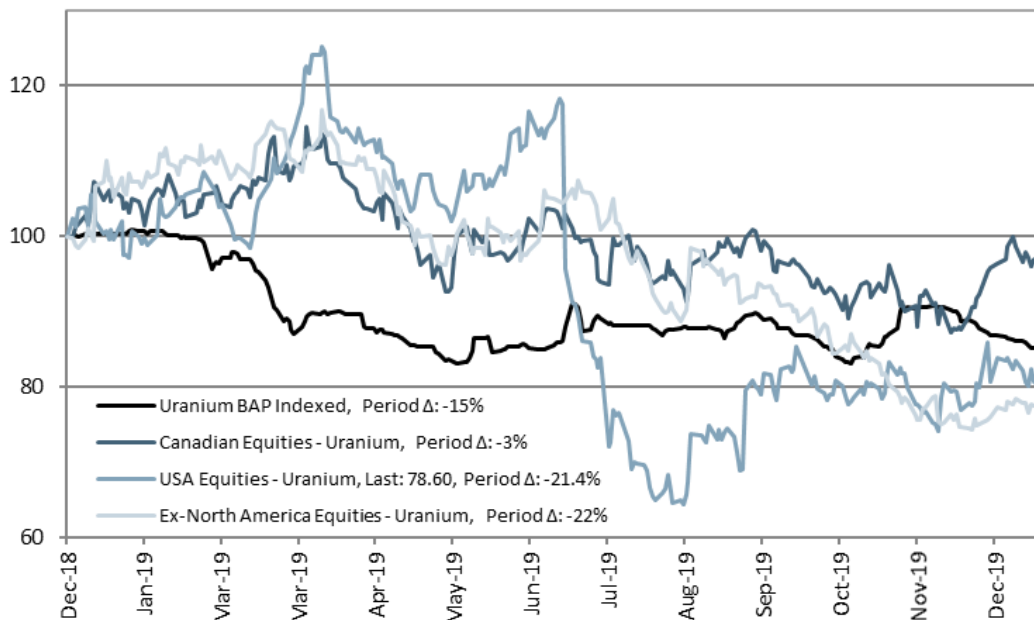
Uranium Sector Update

Overview

The U.S. Department of Commerce Section 232 investigation concluded in mid-2019 and the outcome left its mark on uranium stocks with strong exposure to U.S. assets, with the sharp drop shown in Exhibit 4, which more than reversed early year gains and left U.S. exposed equities trading in their 2017 ranges at a time when uranium price was testing sub- \$20/lb U₃O₈ levels and averaged ~17% lower than 2019. The U.S. saw enough merit in the DOC Section 232 report to create the Nuclear Fuel Working Group, which had a mandate to complete a comprehensive study of the U.S. nuclear market and report back to the President. That investigation, report and recommendations has no specific requirement for public disclosure and, while likely already delivered to the President, the timing of any action or response from the White House is uncertain. Hence there isn't much tangible about this for investors to rally around. U.S. based equities continue their slow steady rebuilding from mid-year lows but remain down an average of about 20% for the year.

Segregating the sector by development stage, 'Explorers' on average were the best performers finishing the year relatively flat, with 'Producers' and 'Developers' both down ~25% on the year.

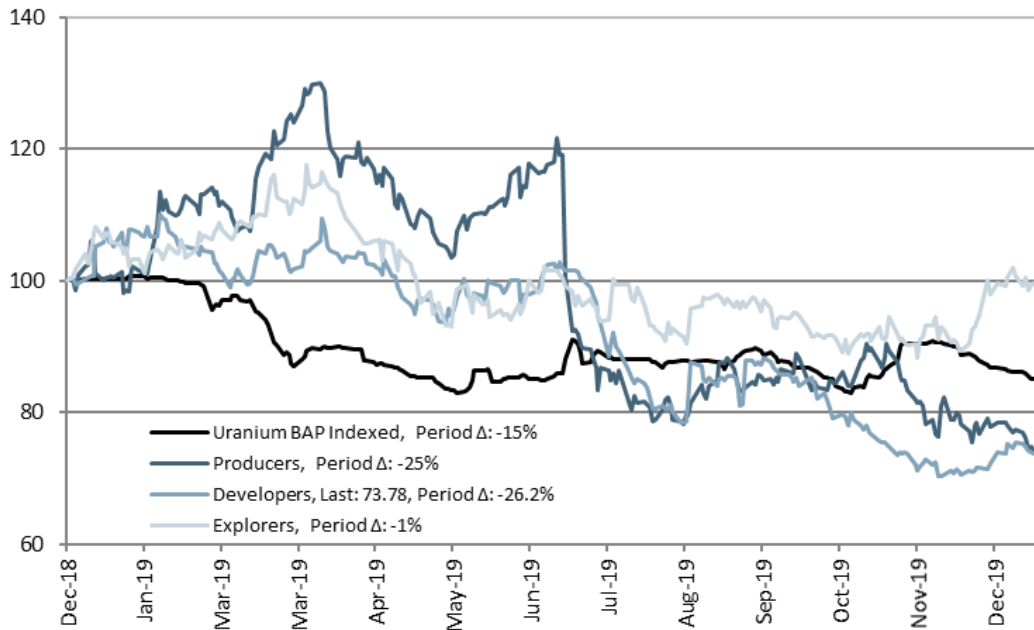
Exhibit 4: Uranium Equity Performance 2019 by Geography of Main Asset



Source: Haywood Securities Inc., Company Press Releases



Exhibit 5: Uranium Equity Performance 2019 by Development Stage



Source: Haywood Securities Inc., Company Press Releases

Uranium Prices & Fuel Cycle Recap

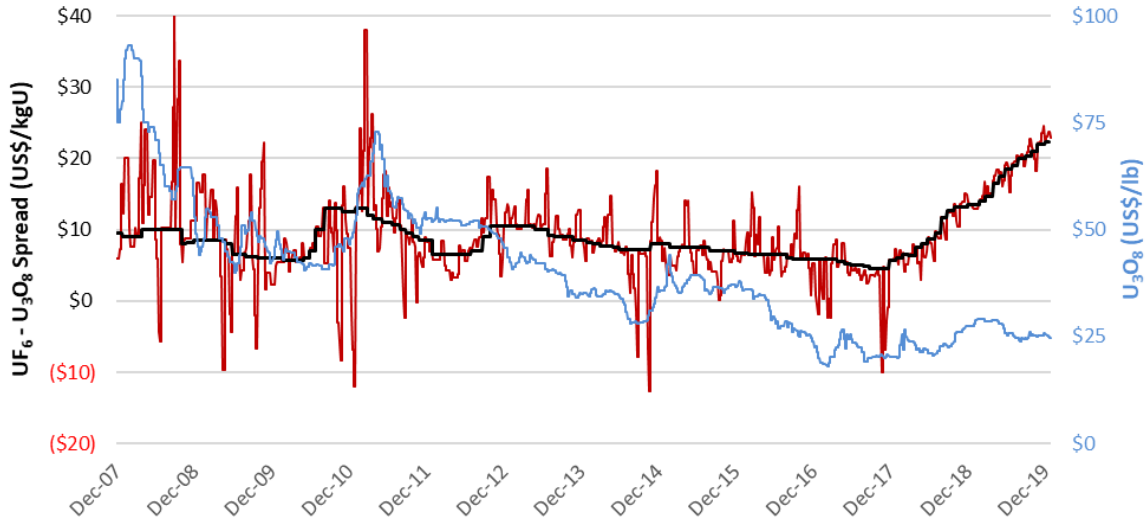
Within the fuel cycle, spanning mined U_3O_8 to Enriched Uranium Product (EUP), we saw some interesting movement in intermediary steps in 2019, which led us to review the interrelationships of pricing of the various stages to see if there are any signals or indicators worth watching. Historically, the price performance relationship between “products” (U_3O_8 , UF_6 , EUP) is much more closely linked than mid-fuel cycle intermediary costs, like conversion and enrichment, but record high conversion prices and low U_3O_8 prices are increasing the proportional value of conversion cost embedded in UF_6 product.

For example, in 2019 the cost of spot ‘Conversion’ (from U_3O_8 to UF_6) rose nearly 65% to its highest in 12-years. UF_6 prices were approximately flat ($\downarrow 0.45\%$) in 2019, significantly outperforming U_3O_8 (down $\sim 14\%$ YoY). At year-end, spot Conversion price was US\$22.25/kgU and UF_6 price was US\$87.60/kgU, meaning conversion made up $\sim 25\%$ of the value of UF_6 , with uranium making up the balance. The historic average embedded cost of conversion in UF_6 is closer to 9%.

The point is, while historically there has been a statistically very minor correlation between Conversion and UF_6 price, that is changing for the moment and slightly disrupts the historically strong correlation between U_3O_8 and UF_6 prices (see the deviation between red/black lines and blue in Exhibit 6 from late 2017). **That said, we believe we should not expect a catchup price movement in U_3O_8 to correct the growing UF_6 - U_3O_8 spread, but more likely a correction in UF_6 .** If spot U_3O_8 appreciates as forecast, we expect that move to be fully reflected in the UF_6 price (i.e., no catch-up). We expect the strong historic correlation (Exhibit 7) between the two products to be maintained. The move in conversion prices in late 2017 is no coincidence. Converdyn, a U.S.-based conversion services provider, suspended UF_6 production in November 2017 due to weak market conditions when spot conversion prices were US\$4.50/kgU, just a fraction of the current +US\$22/kgU. At the time Converdyn reported that it controlled sustainable UF_6 production capacity of about 14,000 tU, or $\sim 25\%$ of global UF_6 production capacity. The WNA currently reports 7,000 tU nameplate capacity for the facility. Resumption of conversion services at Converdyn would likely halt or reverse the conversion squeeze we are currently seeing, as could increases in conversion capacity from more opaque markets like China.



Exhibit 6: UF₆ to U₃O₈ Spread (in \$/kgU), Spot Uranium (\$/lb U₃O₈) and Conversion Price (black line, \$/kgU)



Source: Haywood Securities Inc., UxC

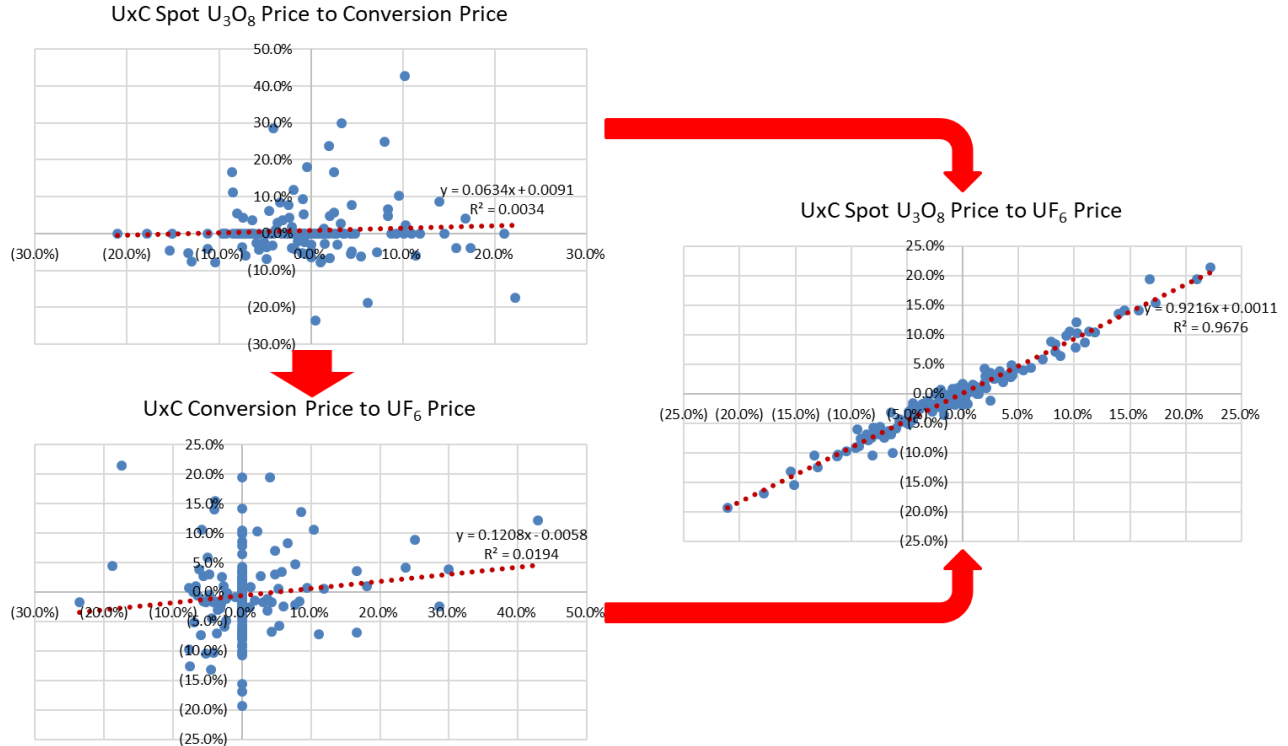
Given the performance of the two inputs of UF₆ (U₃O₈ and Conversion) and their respective price movements, **we believe there is a better chance the UF₆-U₃O₈ spread tightens on UF₆ price declines** on the back of a conversion price correction, **than a U₃O₈ price catchup**. We may see UF₆ continue to outperform U₃O₈ until the conversion market loosens, but the tipping point draws nearer. The charts below highlight that other factors, such as immediate demand for UF₆, and ‘historical cost’ of ‘current’ inventory-for-sale, are also part of the equation (variance in spread to both side of conversion price). The chart shows the evolution of the spread between UF₆ and U₃O₈ (adjusted to U equivalent in kg for uranium content equivalence), and the conversion price. Since Converdyn suspended production at the end of 2017, the emergence of a much stronger relationship between Conversion and UF₆, is highly evident.

Participating in the UF₆ price movement is tricky; the higher conversion prices get, the closer we come to reversion. **Uranium Participation Corp. (U-TSX, Rating: BUY, Target: \$5.90) offers some exposure to UF₆, with 700,000 kg in its physical inventory, worth about US\$61.3 M at current market prices, making up about 14% of its Corporate NAV.** It could benefit from a continued squeeze in the conversion market. Cameco’s (CCO-T, not covered) Port Hope conversion facility offers both UO₂ and UF₆ conversion (from UO₃ produced at its Blind River refinery). Cameco’s Port Hope conversion facility has ~25% of global UF₆ production capacity (licensed up to 45 tU as UF₆/day). With Fuel Services revenue <20% of total revenue, leverage to conversion is somewhat muted.



In the charts below we see how uranium product ($U_3O_8 : UF_6$) is tightly correlated in the long term (RHS) as the value of the uranium embedded in UF_6 historically has made up more than 90% of its total value (currently just ~75%). On the lower left we see that UF_6 exhibits a statistically irrelevant correlation with the monthly % change in Conversion price.

Exhibit 7: U_3O_8 – Conversion – UF_6 Monthly Performance Correlations

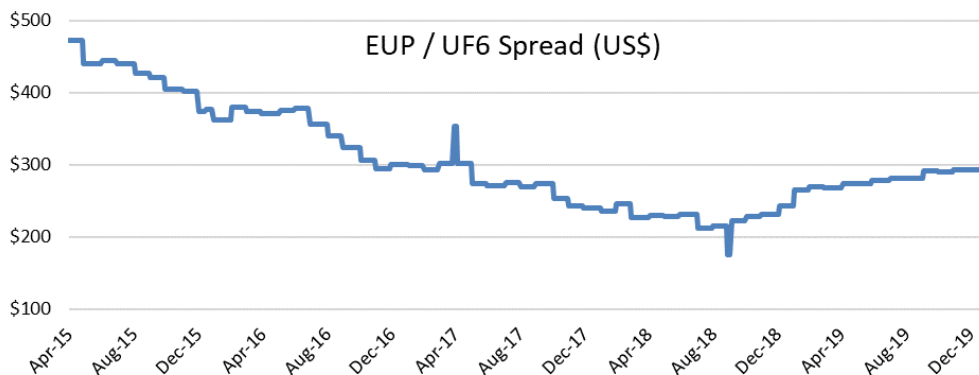


Source: Haywood Securities Inc., UxC

Last year also saw a ~21% increase in SWU price, driving a 4% gain in EUP prices. Currently, UF_6 makes up about 75% of the cost of UxC benchmark EUP, while enrichment work (SWU) makes up about 25% (for the parameters of UxC benchmark Enriched Uranium Product (EUP) at 4.5% U^{235} , tails assay of 0.30% U^{235}). This is fairly close to the 5-year average ratio.

- ◆ For the reader's notes here are the uranium requirements and cost in US\$ at spot to make 1kg of Enriched Uranium Product at the UxC standardized EUP (4.5% U^{235} , tails assay of 0.30% U^{235}): Mine/plant output of 26.7 lb U_3O_8 (\$657) -> Conversion to UF_6 (\$227) -> delivers 10.22 kgU as UF_6 (\$884 cumulative) -> enrichment: 6.23 SWU (\$293) -> delivers 1kg EUP (\$1,177 cumulative).

Exhibit 8: EUP to UF_6 Spread

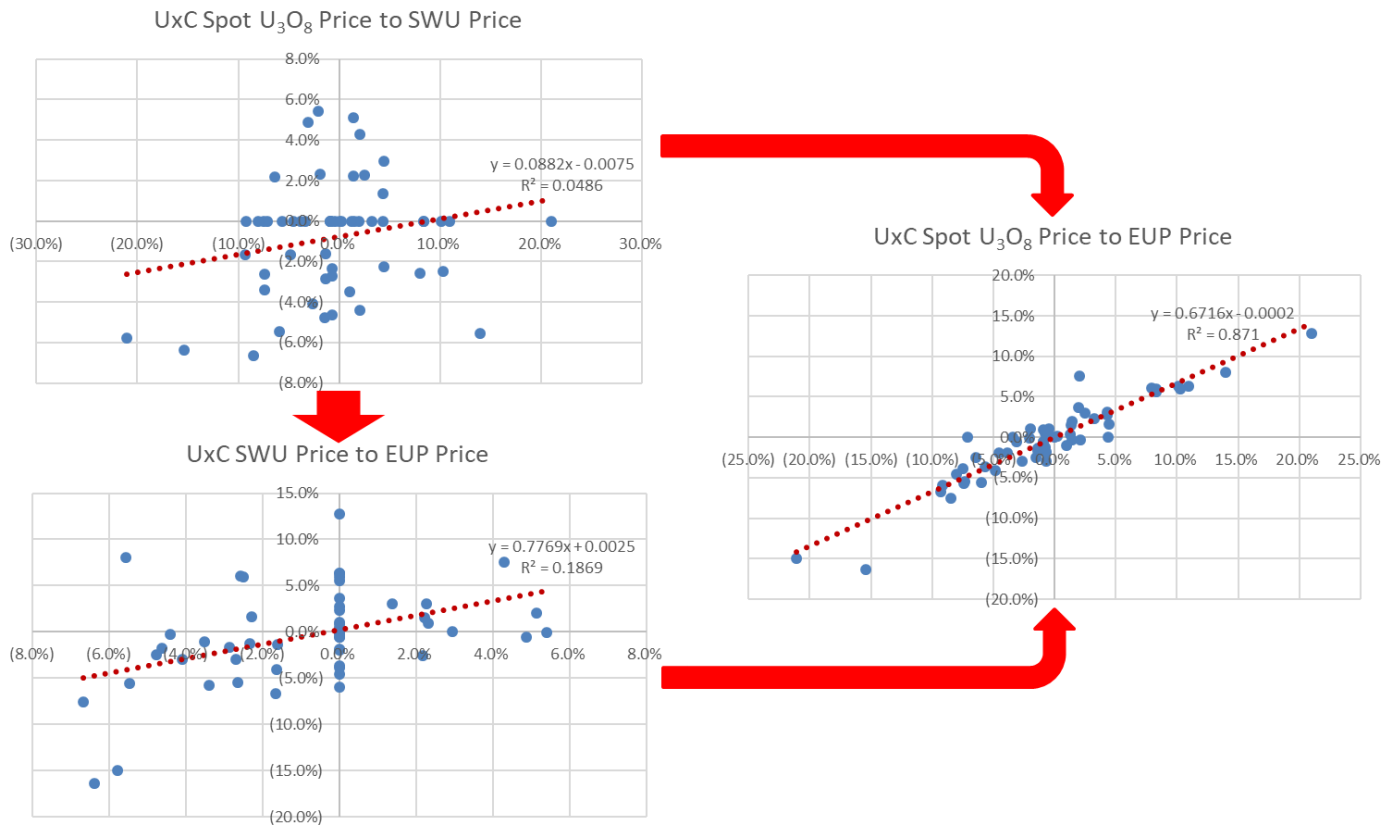


Source: Haywood Securities Inc., UxC



The end-to-end correlation between U₃O₈ and EUP is fairly strong, as the cost of U₃O₈ is about 56% of EUP, while conversion and enrichment services make up the balance. Conversion and SWU prices definitely affect upstream product prices, but their periodic movements are not well correlated to the product, as they tend to revert to their mean in the long-term, while U₃O₈ prices trend differently and are more influential, especially at higher uranium prices.

Exhibit 9: U₃O₈ – Conversion – UF₆ Monthly Performance Correlations



Source: Haywood Securities Inc., UxC

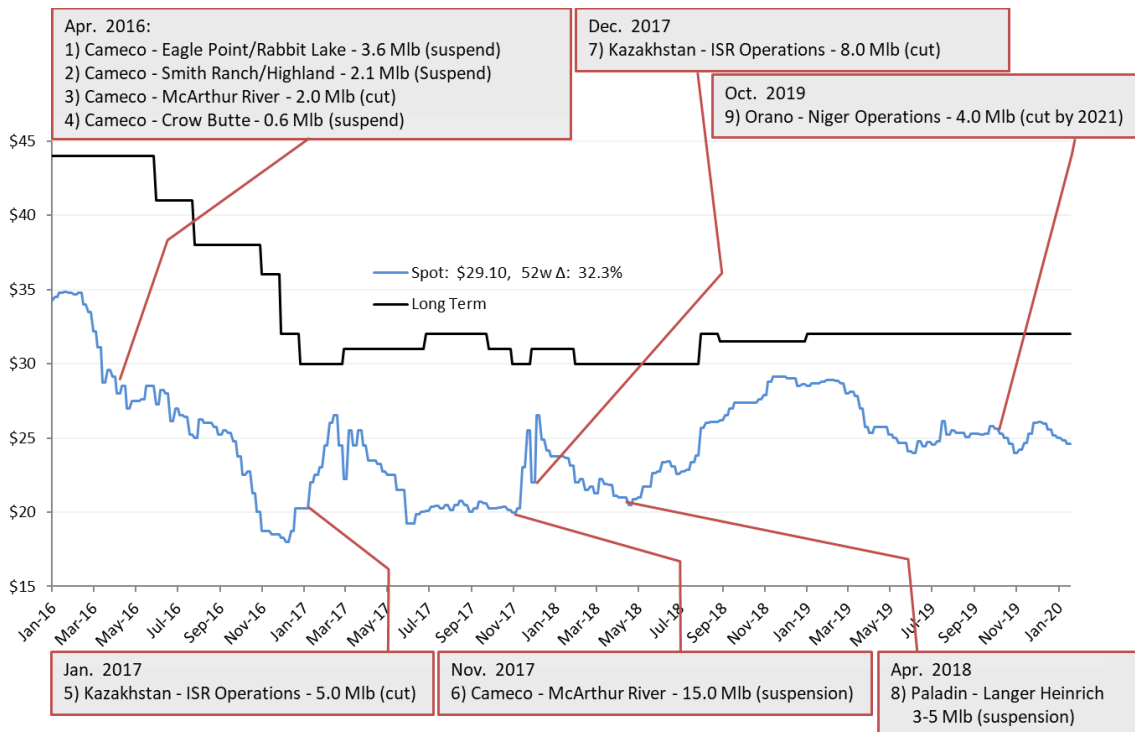
Looking Ahead

Looking ahead, we continue to see the uranium sector in the early stages of a long-term bull market and recommend investors begin positioning their portfolios by steadily accumulating select names. Previously enacted and expected major supply cuts have rebalanced the market and are starting to erode global inventories with primary production now less than reactor demand. Despite this, we are lowering our uranium price forecast for 2020 onward and lowering our long-term terminal price expectation, as the recovery we are expecting continues to protract. We have rolled forward our valuations for covered names, many of which have target price reductions on the impact of lower uranium price, but still reflect good return potential. We have updated our model portfolio for the sector including recommended weightings and trailing performance data. We also provide quantitative rankings of the uranium investment universe based on a fusion of fundamental and technical factors that can serve as a basis for short/intermediate-term trades.

Supply/demand balance remains best in years. We continue to like the uranium market rationalization that is taking place with the effect of production cuts from the world’s largest suppliers. These cuts were in direct response to sustained low uranium prices driven by oversupply and immediately improve the demand-supply balance which should lead to increases in uranium prices as we chew through the moderating effect of global inventories. We believe substantially higher prices will be required to incentivize new mine construction to backfill the accelerating supply shortfall we outline from 2027. As mentioned, with demand now exceeding production, we expect the impact of supply shortfalls on uranium price to be buffered by the global inventory surplus accumulated over the last 8 years, but we expect prices to build steadily toward “new supply” incentive prices in coming years. We believe that the uranium equity universe will lead the charge higher in anticipation of higher uranium prices, as the sector offers its most compelling value proposition since pre-Fukushima.



Exhibit 10: Notable Supply-Side Uranium Production Cuts since 2016



Source: Haywood Securities Inc., Company Press Releases

How are announced Supply Cuts Manifesting? In Exhibit 11 we look at the actual changes in global production by country, with a few key highlights:

- ◆ **Primary Supply Deficit:** Total Global mine production 2018 was only 83% of demand, the LOWEST SINCE 2009
- ◆ **Last 2 years:** Global NET production cuts amount to 23 Mlb or 14.2% of mine supply

Within the table below we break out the details of the largest global production centres, as well as the U.S. The U.S. uranium market was topical going into 2019 and may continue to be in 2020. U.S. production has posted double digit % declines in each of the last 5 years and has dwindled from 5.0 Mlb U₃O₈ in 2014, to less than 1.0 Mlb in 2019, representing a tiny fraction of the Country’s annual reactor demand, which is approaching 50 Mlb U₃O₈.

The U.S. Nuclear Fuel Working Group took a deep dive into the domestic market and delivered its report to the President in late 2019. There is some potential for the conclusions and recommendations of that report to create a catalyst for U.S. developers/producers this year, but **the timing of any outcome or action by the President is uncertain, so we recommend positioning in the highest quality names rather than just a U.S.-focused theme for 2020.**



Exhibit 11: The Post-Fukushima Supply Glut has Disappeared

Uranium Production 2009-2018 (Mlb U₃O₈), Source: adapted from World Nuclear Association Data

Country	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	% of Global Production	% of Global Demand	2-Year Δ	2-Year Δ%
Kazakhstan	36.4	46.3	50.6	55.4	58.4	60.1	61.4	63.9	60.6	56.4	40.6%	33.7%	(7.49)	(11.7)%
% Change		27.0%	9.3%	9.6%	5.3%	3.0%	2.1%	4.1%	(5.1)%	(6.9)%				
Canada	26.4	25.4	23.8	23.4	24.3	23.7	34.6	36.5	34.1	18.2	13.1%	10.9%	(18.30)	(50.1)%
% Change		(3.8)%	(6.5)%	(1.6)%	3.7%	(2.1)%	45.9%	5.4%	(6.6)%	(46.6)%				
Australia	20.8	15.3	15.6	18.2	16.5	13.0	14.7	16.4	15.3	16.9	12.2%	10.1%	0.53	3.2%
% Change		(26.1)%	1.4%	16.8%	(9.2)%	(21.2)%	13.1%	11.7%	(6.9)%	10.8%				
Namibia	12.0	11.7	8.5	11.7	11.2	8.5	7.8	9.5	11.0	14.4	10.3%	8.6%	4.86	51.2%
% Change		(2.8)%	(27.5)%	38.0%	(3.8)%	(24.7)%	(8.0)%	22.1%	15.6%	30.8%				
Niger	8.4	10.9	11.3	12.1	11.7	10.5	10.7	9.0	9.0	7.6	5.4%	4.5%	(1.48)	(16.3)%
% Change		29.4%	3.6%	7.3%	(3.2)%	(10.2)%	1.5%	(15.5)%	(0.9)%	(15.6)%				
Russia	9.3	9.3	7.8	7.5	8.2	7.8	7.9	7.8	7.6	7.5	5.4%	4.5%	(0.26)	(3.3)%
% Change		(0.1)%	(16.0)%	(4.0)%	9.2%	(4.6)%	2.2%	(1.7)%	(2.9)%	(0.4)%				
Uzbekistan (est)	6.3	6.2	6.5	6.2	6.2	6.2	6.2	6.2	6.2	6.2	4.5%	3.7%	0.00	0.0%
China (est)	1.9	2.2	2.3	3.9	3.9	3.9	4.2	4.2	4.9	4.9	3.5%	2.9%	0.70	16.6%
Ukraine (est)	2.2	2.2	2.3	2.5	2.4	2.4	3.1	2.6	1.4	3.1	2.2%	1.8%	0.45	17.4%
USA	3.8	4.3	4.0	4.1	4.7	5.0	3.3	2.9	2.4	1.5	1.1%	0.9%	(1.41)	(48.3)%
% Change		14.2%	(7.4)%	3.8%	12.3%	7.1%	(34.5)%	(10.4)%	(16.4)%	(38.1)%				
India (est)	0.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	0.8%	0.7%	0.10	9.9%
South Africa	1.5	1.5	1.5	1.2	1.4	1.5	1.0	1.3	0.8	0.9	0.6%	0.5%	(0.37)	(29.4)%
Iran (est)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.2	0.1%	0.1%	0.18	-
Pakistan (est)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1%	0.1%	0.00	0.0%
Czech Republic	0.7	0.7	0.6	0.6	0.6	0.5	0.4	0.4	0.0	0.0	0.0%	0.0%	(0.36)	(100)%
Romania (est)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0%	0.0%	(0.13)	(100)%
Brazil (est)	0.9	0.4	0.7	0.8	0.5	0.1	0.1	0.1	0.0	0.0	0.0%	0.0%	(0.11)	(100)%
France	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0%	0.0%	0.00	-
Germany	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0%	0.0%	0.00	-
Malawi	0.3	1.7	2.2	2.9	2.9	1.0	0.0	0.0	0.0	0.0	0.0%	0.0%	0.00	-
Total world Production	132.0	139.5	139.1	152.1	154.2	145.7	156.8	162.2	154.6	139.1	100.0%	83.0%	(23.09)	(14.2)%
% of Global Demand	80%	84%	87%	94%	91%	85%	98%	96%	93%	83%				

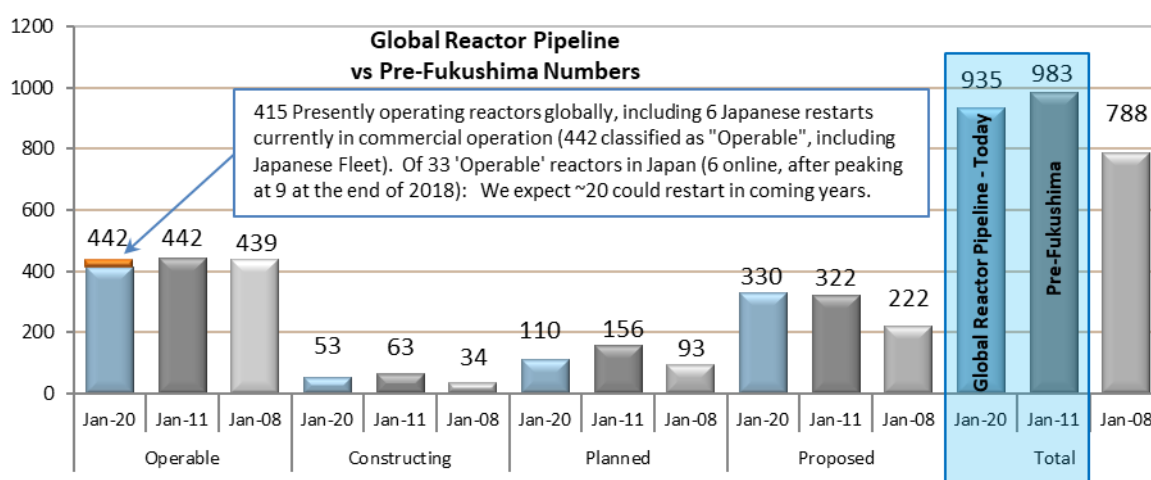
Source: Haywood Securities Inc., Company Press Releases



The Global Reactor Pipeline Remains Robust: The global reactor pipeline (WNA data) is approaching pre-Fukushima numbers. Importantly, the number of operating reactors is inching ever closer to the pre-Fukushima era as Japan made significant strides to bring reactors back online over the last 2 years. ‘Reactors under construction’ have declined slightly since January 2011, but there is an underlying success story here that keeps us bullish. Since 2014, China has completed construction on and commissioned 28 reactors, increasing its operating fleet to 47 (+161% in just 5 years). China makes up 21% (11 units) of the current global ‘under construction’ pipeline, with another 7 in India, 4 in Russia, 4 in South Korea and 4 in the UAE. We like the concentration from a demand perspective in Nation States with a track record of successful execution.

The current global reactor fleet includes 415 operating reactors (442 classified by the WNA as ‘operable’ (grid connected), with the difference in semantics attributable to Japan’s fleet). Our demand forecast includes ~26% growth in ‘operating’ reactors from 415 currently to 520 by 2035. This includes the eventual restart of a significant group classified as ‘operable’ in Japan, for the addition of 79 net* new reactors globally (*net of forecast reactor retirements). To put this into context, current global reactors under construction (53, WNA) plus restarts in Japan (21-26 estimated, Haywood) account for 78-83 of our ‘net new’ reactors before accounting for movement of any of the 156 reactors marked ‘Planned’ by the WNA. Our estimates of net changes in the global reactor fleet are slightly more conservative than those of the WNA’s reference scenario which outlines 140 reactor retirements and 224 reactor builds and Japanese restarts (net +84 units).

Exhibit 12: Global Reactor Pipeline Evolution



Source: Haywood Securities Inc., WNA

Commodity Price Action and Market Sentiment

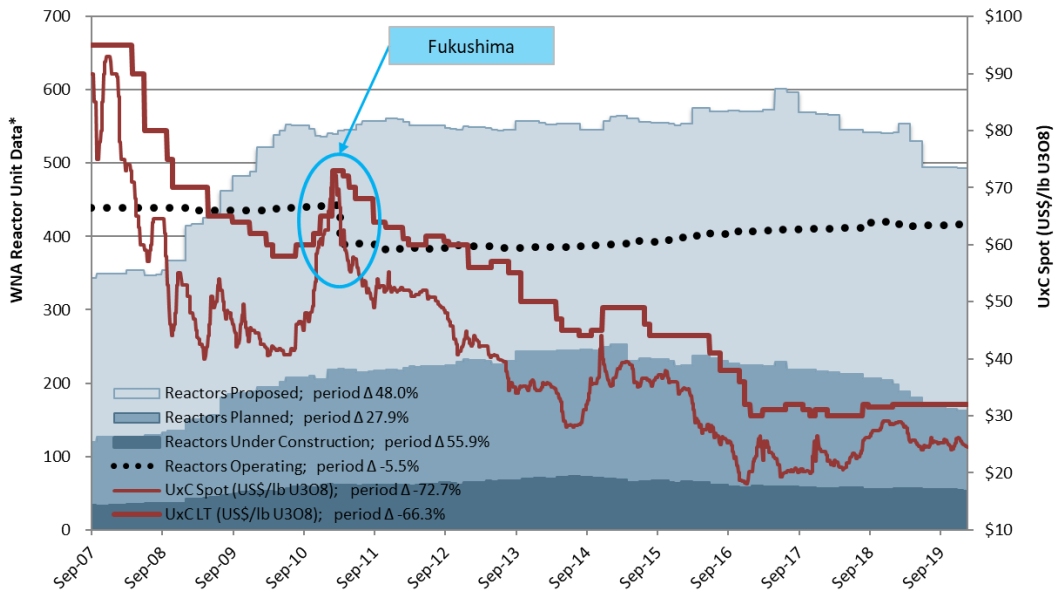
Spot Uranium Stable after recovering from 2016 Lows: The increasing frequency of news relating to production cuts since 2017 has helped stabilize the declining trend in spot and long-term uranium prices that has prevailed since Fukushima. We have seen a bit of a relapse in the strong recovery in UxC spot prices that took us from the lows of ~\$18/lb in December 2016 to the Q1/19 high of ~\$29/lb driven mainly by speculation on bullish production cuts that failed to get confirmed by a sustained run in uranium price. Spot price now looks rangebound around \$24-\$25, where producer buying that was expected in the market at the end of 2019 failed to boost prices.

Long-Term Prices Remain Near 3-year Lows: At the same time, the important UxC Long-Term price indicator has been much stickier, currently sitting at \$32/lb, just \$2 above its 2016/17/18 low of \$30/lb, and totally static in 2019. The Long-Term contracting market is historically where ~70% of utility buying is sourced and a metric we have long focused on as an indicator of the deeper fundamental health of the sector. We believe that emergence of a positive trend in the Long-Term price will be coincident with much improved supply/demand fundamentals. Production cuts and net new reactors/reactor restarts are poised to support this by chewing through global inventory and eventually shifting the bias toward a sellers’ market.

Term market volume highest since 2012: UxC reported term market volumes were up again in 2019 to 95.8 Milb (+5.9% YoY), to its highest level since 2012, posting a 3rd consecutive year of increases, outpacing the growth in reactor count. We remind readers that new reactors typically are fueled with an initial loading consisting of 3-4 years’ worth of fuel. We had expected that US utilities would be more active in the term market following clarity from the outcome of the Section 232 investigation in mid-2019. This didn’t materialize, and so some speculate they continue to await clarity from possible Presidential action based on the outcome of the U.S. Nuclear Fuel Working Group study of the domestic market. In any event, with U.S. utilities’ uncovered demand approaching just 2 years, we expect to see a significant return to the term market imminently and expect that to result in positive ‘Long-Term’ price movement, mirrored in the spot price.



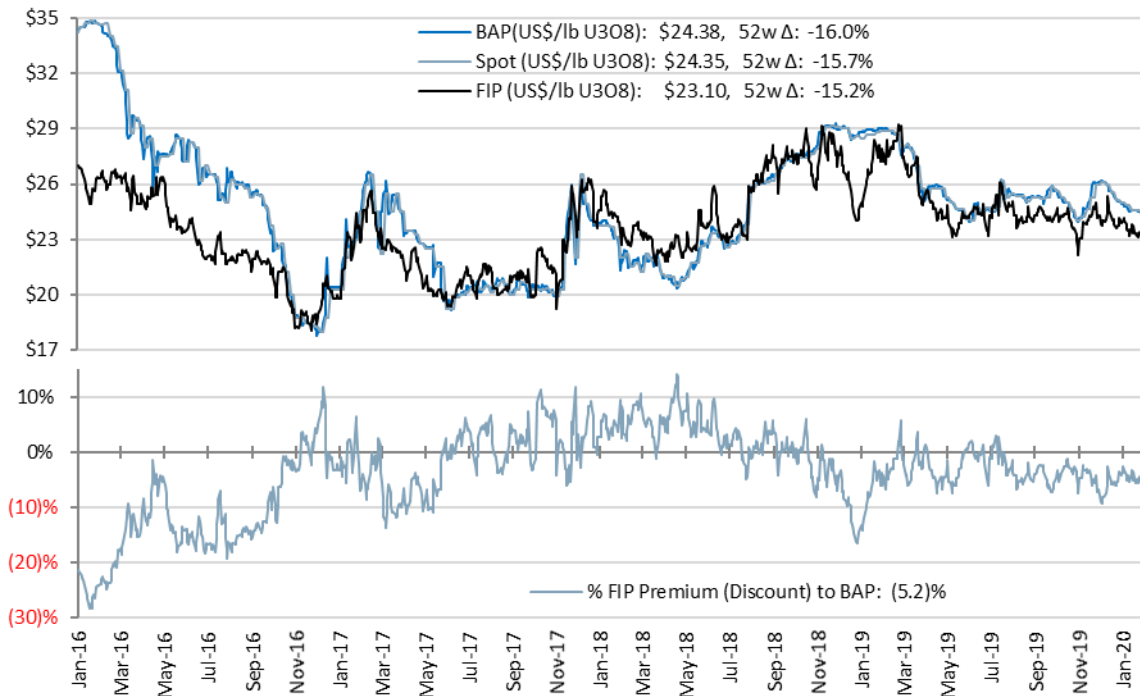
Exhibit 13: Uranium Price Action in the Context of the Global Reactor Fleet



Source: Haywood Securities Inc., WNA, CapitalIQ, UxC

Uranium Sentiment Indicator Back in Neutral Territory: As shown below, Uranium Participation Corp, (U-TSX, Rating: Buy, Target; \$5.90) traded at a discount to its physical inventory Net Asset Value (NAV) through most of 2019. The discount was in line with historic averages, nothing like the >25% discount seen in 2016 where sentiment was severely negative, suggesting the market maintains a neutral short-term outlook on the commodity at the moment. The Fund-Implied Price (FIP) of uranium is currently sitting at \$23.10, a 5.4% discount to the UxC daily Broker Average Price, or BAP. As an unmanaged physical inventory fund, UPC provides great insight into market sentiment on uranium and we believe trading action suggests higher prices, in-line with our thesis.

Exhibit 14: Uranium Prices & FIP



Source: Haywood Securities Inc., CapitalIQ, UxC



Exhibit 15: Uranium Comparables

Company (Ticker)	Share Price	Consensus Targets		Shares Outst. (millions)	Market Capitalization (millions)	In-Situ Comps - EV/IB U3O8			NAV Comps		Cash Flow Comps					
		IBES Consensus Target	Implied Return			Enterprise Value (USD) (millions)	Total Reserves & Resources (M lb)	USD EV/IB Resource	IBES Consensus NAV	Price / Nav	CFPS (LoC)			P/CFPS		
											2018	2019	2020	2018	2019	2020
PRODUCERS																
Haywood Covered Names bold																
Cameco Corporation (CCO-T)	\$10.97	\$15.18	38%	396	\$4,342	\$3,405	1,051	\$3.24	\$13.78	0.80x	\$1.19	\$0.87	\$0.60	9.2x	12.6x	18.3x
Uranium Energy (UEC-US)	\$0.78	\$2.70	245%	184	\$143.8	\$151.4	111.5	\$1.36	\$2.73	0.29x	(\$0.10)	(\$0.06)	(\$0.43)			
Energy Fuels (UUUU-US)	\$1.52	\$3.64	139%	100	\$152.2	\$149.4	131.3	\$1.14	\$3.34	0.46x	(\$0.16)	(\$0.03)	\$0.10			15.2x
Ur-Energy Inc. (URE-T)	\$0.67	\$1.01	51%	160	\$107.5	\$90.5	41.6	\$2.17	\$1.19	0.56x	(\$0.01)	\$0.04	\$0.01		16.8x	50.3x
Peninsula Energy (PEN-AU)	\$0.15	\$0.90	500%	301	\$45.2	\$39.6	53.6	\$0.74	\$0.90	0.17x	(\$0.01)	(\$0.03)				
Energy Resources (ERA-AU)	\$0.16			518	\$80.2	(\$181.4)	431.1		\$0.21	0.74x	\$0.07	\$0.17	(\$0.03)	2.2x	0.9x	
Group Average - Producers								\$1.73		0.50x				5.7x	10.1x	27.9x
DEVELOPERS																
NexGen Energy (NXE-T)	\$1.43	\$4.76	233%	360	\$515.2	\$440.3	348.8	\$1.26	\$5.28	0.27x	(\$0.02)	(\$0.03)	(\$0.04)			
Denison Mines (DML-T)	\$0.49	\$1.03	113%	597	\$289.6	\$212.6	179.6	\$1.18	\$1.42	0.34x	(\$0.03)	(\$0.02)	(\$0.01)			
Fission Uranium (FCU-T)	\$0.26	\$1.60	515%	486	\$126.4	\$91.0	135.2	\$0.67	\$1.54	0.17x	(\$0.01)	(\$0.01)	(\$0.01)			
GovEx Uranium (GXU-V)	\$0.13			423	\$55.0	\$53.3	215.6	\$0.25								
Global Atomic (GLO-T)	\$0.49			145	\$71.3	\$50.1	292.5	\$0.17								
Boss Resources (BOE-AU)	\$0.05			1,587	\$76.2	\$47.0	71.4	\$0.66				(\$0.00)				
Deep Yellow (DYL-AU)	\$0.26	\$0.40	54%	247	\$64.1	\$33.2	155.6	\$0.21								
Laramide Resources (LAM-T)	\$0.19			165	\$31.4	\$31.0	122.7	\$0.25								
UEX Corporation (UEX-T)	\$0.11	\$0.45	309%	394	\$43.4	\$30.0	98.6	\$0.30			(\$0.02)					
Azarga Uranium (AZZ-T)	\$0.20	\$0.36	80%	186	\$37.1	\$27.5	43.6	\$0.63	\$0.50	0.40x		(\$0.03)	(\$0.02)			
Toro Energy (TOE-AU)	\$0.01			2,490	\$19.9	\$20.7	75.7	\$0.27								
Bannerman Resources (BMN-AU)	\$0.03			1,059	\$34.9	\$19.1	257.2	\$0.07								
Plateau Energy (PLU-V)	\$0.27			86	\$22.7	\$16.3	123.4	\$0.13			(\$0.06)					
Vmyr Resources (VMY-AU)	\$0.04	\$0.34	750%	614	\$24.5	\$15.9	117.0	\$0.14	\$0.32	0.13x	(\$0.02)	(\$0.01)	(\$0.01)			
Western Uranium (WUC-L)	\$0.80			30	\$24.1	\$15.9										
Forsys Metals (FSY-T)	\$0.12			157	\$18.0	\$13.0	127.0	\$0.10								
A-Cap Energy (ACB-AU)	\$0.01			872	\$8.7	\$9.8	190.6	\$0.05								
Energy Metals (EME-AU)	\$0.13			210	\$26.2	\$6.0	61.1	\$0.10								
U3O8 Corp. (UWE-T)	\$0.10			23	\$2.3	\$2.2	47.7	\$0.05								
Berkeley Energia (BKY-AU)	\$0.20	\$1.09	461%	259	\$50.4	(\$6.9)	89.4				(\$0.09)	(\$0.05)	(\$0.05)			
Group Average - Developers								\$0.36		0.26x						
EXPLORERS																
Aurania Resources (ARU-V)	\$3.48	\$4.50	29%	38	\$133.5	\$102.4										
Azimut Exploration (AZM-V)	\$1.45			59	\$85.1	\$63.7										
IsoEnergy Ltd. (ISO-V)	\$0.41			91	\$36.8	\$27.4	8.2	\$3.34								
ValOre Metals (VO-V)	\$0.34			85	\$28.9	\$20.0	43.5	\$0.46								
Mega Uranium (MGA-T)	\$0.09			326	\$27.7	\$16.9	17.0	\$0.99								
Globex Mining (GMX-T)	\$0.36			54	\$19.6	\$12.6										
enCore Energy (EUC-V)	\$0.13			145	\$18.8	\$12.1	56.4	\$0.21								
Blue Sky (BSK-V)	\$0.13			120	\$15.0	\$11.5	22.7	\$0.51								
Skyharbour Resources (SYH-V)	\$0.16	\$1.01	531%	75	\$12.1	\$8.8	7.0	\$1.27								
Forum Energy (FMC-V)	\$0.10			109	\$10.9	\$8.2	0.6	\$13.01								
Purepoint Uranium (PTU-V)	\$0.05			223	\$11.2	\$8.1										
CanAlaska Uranium (CWV-V)	\$0.21			58	\$11.8	\$7.6										
Marenica Energy (MEY-AU)	\$0.07			117	\$8.2	\$5.2	113.6	\$0.05								
Fission 3.0 (FUU-V)	\$0.06			142	\$7.8	\$4.4										
Anfield Energy (AEC-V)	\$0.08	\$0.30	275%	75	\$6.0	\$4.3	37.1	\$0.12	\$0.40	0.20x						
X-Terra Resources (XTT-V)	\$0.10			59	\$5.9	\$3.8										
Cauldron Energy (CXU-AU)	\$0.02			343	\$6.9	\$3.4	30.9	\$0.11								
Eros Resources (ERC-V)	\$0.10			48	\$4.6	\$3.2										
Avrupa Minerals (AVU-V)	\$0.04			114	\$4.0	\$3.0										
Zadar Ventures (ZAD-V)	\$0.15			20	\$3.0	\$2.1										
Uravan Minerals (UVN-V)	\$0.04			42	\$1.5	\$1.1										
Vanadian Energy (VEC-V)	\$0.03			42	\$1.3	\$1.0	43.2	\$0.02								
Tarku Resources (TKU-V)	\$0.01			76	\$0.8	\$0.8										
Roughrider Exploration (REL-V)	\$0.06			14	\$0.8	\$0.5										
Group Average - Explorers								\$1.83								
INVENTORY FUNDS																
Uranium Participation (U-T)	\$3.97	\$5.49	38%	138	\$548.1	\$412.5	17.8	\$23.15	\$5.17	0.77x						
Yellow Cake (YCA-LN)	£1.88	£2.70	44%	88	£165.5	\$206.1	9.6	\$21.44								

All data sourced from S&P Capital IQ, SNL Financial, Bloomberg, Haywood Securities, Company Reports

Source: Haywood Securities Inc., CapitalIQ, UxC



How to Play the Sector – Haywood Uranium Playbook

Below we provide technical charts, a model portfolio, and quant rankings for the sector.

Technical Analysis

It's quiet... too quiet. Volatility compression in Uranium equities suggests potential for outsized move. In the below chart of the Global X Uranium ETF (URA), we show the 14-week Average True Range (ATR) and the Bollinger Band Width in the top panels. Both are measures of realized (or historical) volatility and have been compressing over the past few years. This volatility compression is evident in the descending triangle formation on the weekly chart where each rally has been met with distribution at lower highs, indicating that bears have been driving price direction into a tight range. The ETF has long-term support in the ~\$10 range. We are looking for a mean-reversion move in volatility to break URA through the \$11.50 level and a subsequent move above the \$13 zone to confirm a trend change to the upside.

Global X Uranium ETF (URA; Weekly)



Source: Stockcharts.com



Uranium Participation is also demonstrating volatility compression as bearish pressure starts to weaken. The stock saw heavy distribution in early 2019 before forming a head & shoulders bottom formation on a weekly chart. A break above the neckline \$4.50 would confirm the bottoming pattern. Longer-term resistance is at the \$5.00 and \$5.50 zones. On-balance volume (bottom panel) is starting to show early signs of accumulation.

Uranium Participation (U-T; Weekly)



Source: Stockcharts.com



Cameco in bearish momentum regime and relative downtrend vs. sector. While the stock continues to see heavy distribution, look for support to come into play around the last minor low at \$10.63 and in the \$9.70-\$10.38 range after.

Cameco (CCO-T; Weekly)



Source: Stockcharts.com



Denison is testing long-term support in the \$0.50 zone. This is an area where we would expect buyers to step in and start accumulating. A break below here would indicate a significant lack of interest from buyers.

Denison (DML-T; Weekly)



Source: Stockcharts.com

Energy Fuels was hit hard after the Section 232 investigation failed to meet investor expectations in the summer of 2019. The stock



found support at \$2.00 and looks set to retest that level.

Energy Fuels (EFR-T; Weekly)



NexGen is approaching a long-term support level going back to the 2016 lows in the \$1.42-\$1.45 area. Two encouraging signs are 1) the



weekly RSI never touched oversold territory throughout the downtrend, a sign of underlying strength, and 2) after seeing heavy distribution in early 2019 (which did not have a significant price impact), volume patterns are starting to show early signs of accumulation.

NexGen (NXE-T; Weekly)



Source: Stockcharts.com

UEC continues to experience distribution as it breaks down through the \$0.80 support zone. The oversold RSI reading registered during the summer sell-off is a sign of underlying weakness. Look for next support around \$0.70.



Uranium Energy Corp. (UEC; Weekly)



Source: Stockcharts.com

Azarga is forming a short-term base as on-balance volume shows signs of accumulation. Look for short-term resistance around the \$0.23 level and longer-term resistance in the \$0.30-34 zone.



Azarga Uranium (AZZ-T; Weekly)



Model Portfolio

Portfolio construction methodology: The securities selected for inclusion in the portfolio were determined primarily by our fundamental view of each Company (asset base, geographic exposure, capital structure, valuation, management team, upcoming catalysts etc.). Security



weightings were determined using a risk-parity approach that incorporates each stock's realized volatility measured by 90-day average true range (ATR). This results in an equal-risk distribution as opposed to an equal-dollar distribution so higher volatility names are underweighted and lower volatility names are overweight.

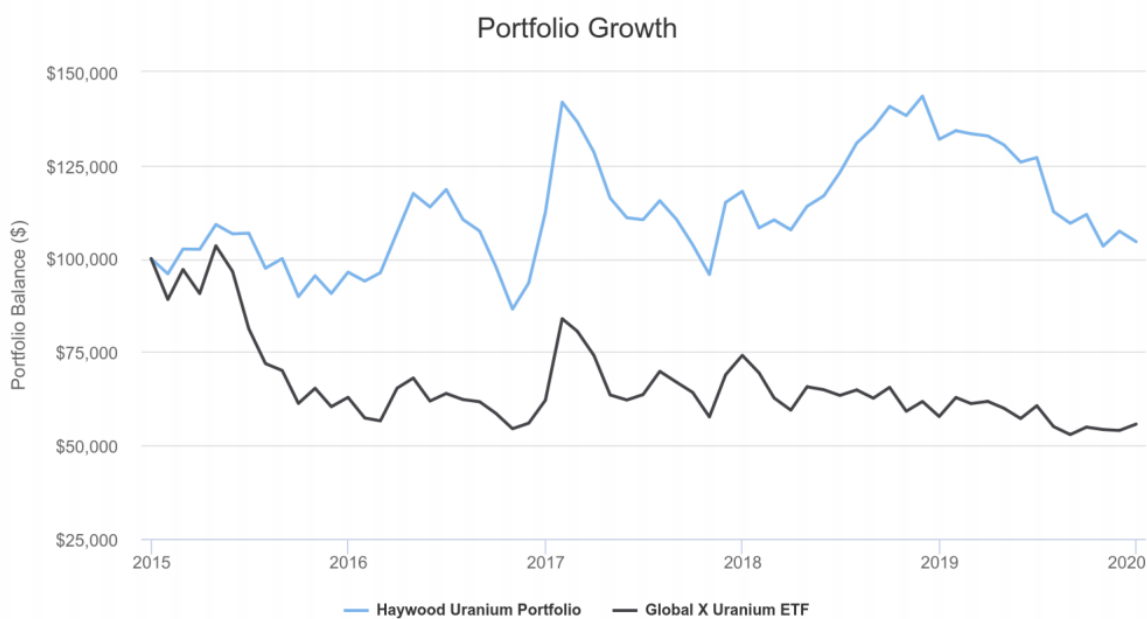
Portfolio Construction

	Issuer	Risk Parity Weighting	Shares Owned	Capital Invested
TSX:CCO	Cameco Corporation	19%	1720	\$18,765
TSX:DML	Denison Mines Corp.	14%	26911	\$13,725
TSX:EFR	Energy Fuels Inc.	10%	4670	\$10,041
TSX:NXE	NexGen Energy Ltd.	13%	8541	\$13,068
UEC	Uranium Energy Corp.	6%	6836	\$5,645
TSX:U	Uranium Participation Corporation	30%	7335	\$29,560
TSX:AZZ	Azarga Uranium Corp.	9%	47089	\$9,182
		100%		\$99,986

Source: Haywood Securities Inc.

Our model assumptions include initial capital of \$100,000 and annual rebalancing. We present the trailing performance in the chart below over a backtest period of five years relative to the Global X Uranium ETF (URA).

Trailing Portfolio Performance



Source: Portfolio Visualizer, Haywood Securities Inc.



Quant Rankings

We built a model to create quantitative rankings of uranium equities based on the following fundamental and technical factors: momentum, trend, liquidity, insider support, institutional support, sentiment, valuation, volatility, capital structure, performance and relative strength. Please see the appendix for details on specific model inputs and weightings. These rankings can be used by clients to find short to intermediate term trading ideas (3-6 months), while our model portfolio serves as our preferred names to hold for the long-term (1-3+ years). Momentum, trend, and relative strength are the most significant drivers of this model's results, which are ideal factors for this timeframe.

Quant Rankings

Issuer	Ticker	Rank
Azimut Exploration Inc.	TSXV:AZM	1
Globex Mining Enterprises Inc.	TSX:GMX	2
Aurania Resources Ltd.	TSXV:ARU	3
enCore Energy Corp.	TSXV:EU	4
Energy Metals Limited	ASX:EME	5
Melkior Resources Inc.	TSXV:MKR	6
CanAlaska Uranium Ltd.	TSXV:CVV	7
Azarga Uranium Corp.	TSX:AZZ	8
Uranium Participation Corporation	TSX:U	9
Plateau Energy Metals Inc.	TSXV:PLU	10
Western Uranium & Vanadium Corp.	CNSX:WUC	11
Blue Sky Uranium Corp.	TSXV:BSK	12
GoviEx Uranium Inc.	TSXV:GXU	13
Denison Mines Corp.	TSX:DML	14
Aben Resources Ltd.	TSXV:ABN	15
Purepoint Uranium Group Inc.	TSXV:PTU	16
Deep Yellow Limited	ASX:DYL	17
Bannerman Resources Limited	ASX:BMN	18
Fission 3.0 Corp.	TSXV:FUU	19
Ur-Energy Inc.	TSX:URE	20
IsoEnergy Ltd.	TSXV:ISO	21
Energy Fuels Inc.	US:UUUU	22
Fission Uranium Corp.	TSX:FCU	23
Forsys Metals Corp.	TSX:FSY	24
Energy Resources of Australia Ltd	ASX:ERA	25
Mega Uranium Ltd.	TSX:MGA	26
Toro Energy Limited	ASX:TOE	27
Cameco Corporation	TSX:CCO	28
Skyharbour Resources Ltd.	TSXV:SYH	29
Laramide Resources Ltd.	TSX:LAM	30
NexGen Energy Ltd.	TSX:NXE	31
Peninsula Energy Limited	ASX:PEN	32
Uranium Energy Corp.	US:UEC	33
UEX Corporation	TSX:UEX	34
Vimy Resources Limited	ASX:VMY	35
Berkeley Energia Limited	ASX:BKY	36
A-Cap Energy Limited	ASX:ACB	37

Source: Haywood Securities Inc.



Appendix – Quant Model

Model Inputs

Haywood Quant Ranking Model			
Momentum		Individual Weights	Overall System Weighting
<u>Variables</u>			
Percent above/below 50-day SMA	20.0%	5.00%	
Percent above/below 200-day SMA	20.0%	5.00%	
Spread between 50d SMA and 200d SMA	15.0%	3.75%	
14-day RSI	15.0%	3.75%	
RoC/Pure Momentum (90-day)	15.0%	3.75%	
Force Index (90-day)	15.0%	3.75%	
	100.0%	25.00%	
Trend		Individual Weights	Overall System Weighting
<u>Variables</u>			
ADX level	50.0%	5.0%	
Price above 50d SMA	15.0%	1.5%	
Price above 200d SMA	15.0%	1.5%	
50d SMA > 200d SMA	20.0%	2.0%	
	100.0%	10.0%	
Liquidity		Individual Weights	Overall System Weighting
<u>Variables</u>			
1-week	30.0%	1.5%	
3-month	25.0%	1.3%	
6-month	25.0%	1.3%	
1-year	20.0%	1.0%	
	100.0%	5.0%	
Insider Support		Individual Weights	Overall System Weighting
<u>Variables</u>			
Percent owned by insiders	50.0%	2.5%	
Net buying (3-month)	30.0%	1.5%	
Net buying (6-month)	20.0%	1.0%	
	100.0%	5.0%	
Institutional Support		Individual Weights	Overall System Weighting
<u>Variables</u>			
Percent owned by institutions	60.0%	3.00%	
Net buying	40.0%	2.00%	
	100.0%	5.00%	
Sentiment		Individual Weights	Overall System Weighting
<u>Variables</u>			
Number of buy ratings	45.0%	2.25%	
Implied upside from consensus	45.0%	2.25%	
% from 52-week low	10.0%	0.50%	
	100.0%	5.0%	
Valuation		Individual Weights	Overall System Weighting
<u>Variables</u>			
EV/Attributable Reserves & Resources	50.0%	2.5%	
Forward P/NAV	45.0%	2.3%	
Trailing P/B	5.0%	0.3%	
	100.0%	5.0%	
Volatility		Individual Weights	Overall System Weighting
<u>Variables</u>			
3-month std. dev.	20.0%	1.0%	
6-month std. dev.	15.0%	0.8%	
1-year std. dev.	15.0%	0.8%	
3-month relative volatility vs. base index	20.0%	1.0%	
6-month relative volatility vs. base index	20.0%	1.0%	
52-week range	10.0%	0.5%	
	100.0%	5.0%	
Performance		Individual Weights	Overall System Weighting
<u>Variables</u>			
YTD Price Performance	50.0%	2.50%	
TTM Price Performance	50.0%	2.50%	
	100.0%	5.00%	
Relative Strength		Individual Weights	Overall System Weighting
<u>Variables</u>			
Base Index Components			
US Equities	0%		
Canadian Equities	0%		
URA	100%		
	100%		
3-Month Relative Strength	30%	5%	
6-Month Relative Strength	25%	4%	
YTD Relative Strength	25%	4%	
TTM Relative Strength	20%	3%	
	100%	15%	
Capital Structure		Individual Weights	Overall System Weighting
<u>Variables</u>			
Number of basic shares outstanding	33%	4.95%	
Spread between basic and diluted shares	33%	4.95%	
Leverage	34%	5.10%	
	100%	15.00%	

Source: Haywood Securities Inc.



Guide to the Uranium Sector 2020

Azarga Uranium Corp. January 28, 2020	TSX:AZZ Price: \$0.20	Shares O/S (M) 183.7	MCAP (C\$ M) \$37	Rating: Buy Target (C\$): \$0.50	Return: 150%
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Investment Highlights

Azarga is a junior uranium development company with a U.S.-based suite of assets.

The flagship project is the Dewey Burdock ISR project in South Dakota. Dewey Burdock has an NRC License which recently had its final contestation dismissed by the Atomic Safety & Licensing Board and has final draft EPA permits accepted. In late 2019, AZZ published an updated PEA on Dewey Burdock highlighting a low-cost, low-capex ISR uranium project that would make an excellent tuck-in acquisition for other regional uranium players.

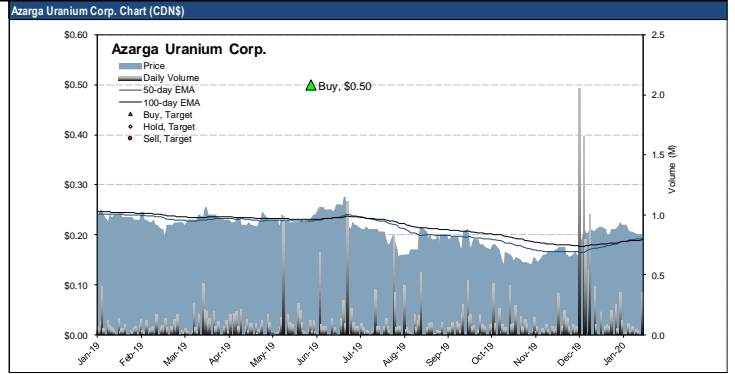
Dewey Burdock 2019 PEA Highlights (vs 2015):

- Mine-life:** 16 years, including ramp-up (+45%)
- Production:** 1 Mlbpa U₃O₈ (unchanged); **Life-of-mine Production:** 14.3 Mlb U₃O₈ (+47%)
- Cash OPEX:** US\$10.46/lb U₃O₈ (-16.5%); **Total pre-tax OPEX:** US\$28.88/lb U₃O₈ (-12%)
- CAPEX:** US\$31.7M (+17% from US\$27M)
- Pre-Tax NPV/IRR @ US\$55/lb:** US\$171M / 55% (vs prior at US\$65/lb of US\$149M / 67%) After-Tax
- NPV/IRR @ US\$55/lb:** US\$147.5M / 50% (vs prior at US\$65/lb of US\$114M / 57%)

Catalysts:

2020 Permitting advancement – Environmental Protection Agency (“EPA”) final Class III and Class V underground injection control permits. Revised draft permits issued in August 2019. The comment period for the revised draft EPA permits is now closed. Three State permits submitted to the South Dakota Department of Environment and Natural Resources [Groundwater Disposal Plan, Water Rights and Large-Scale Mine Plan permits], all deemed complete and recommended for approval.

2020 – Growing U.S. political support for Nuclear and potential for a positive outcome or conclusion from the Trump-appointed U.S. Nuclear Fuel Working Group study of domestic uranium / nuclear fuel supply chain.

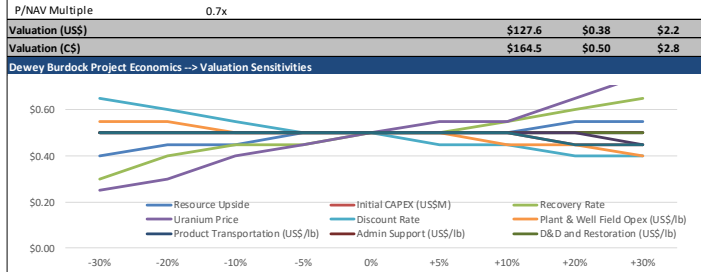


Financials & Model Assumptions	2019	2020	2021	2022	2023	2024
Spot Uranium Price (US\$/lb U3O8)	\$39	\$47	\$55	\$64	\$65	\$65
LT Uranium Price (US\$/lb U3O8)	\$46	\$55	\$63	\$70	\$65	\$65
USD/CAD	1.29	1.29	1.29	1.29	1.29	1.29
Revenue (US\$)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$10.3
Total Project Costs (US\$)	\$0.0	\$0.0	\$0.0	\$0.0	\$2.3	\$20.0
Corporate G&A (US\$)	\$3.2	\$3.4	\$3.5	\$3.5	\$3.6	\$3.7
EBITDA (US\$)	(\$3.2)	(\$3.4)	(\$3.5)	(\$3.5)	(\$5.9)	(\$13.3)
Weighted Avg. S/O (Basic)	227	227	227	227	240	276
Weighted Avg. S/O (Diluted)	240	240	240	240	254	289
Earnings (US\$M)	(\$3.8)	(\$5.8)	(\$3.5)	(\$3.5)	(\$6.0)	(\$21.4)
EPS (US\$)	(\$0.02)	(\$0.03)	(\$0.02)	(\$0.02)	(\$0.03)	(\$0.08)
Free Cash Flow (US\$M)	(\$3.84)	(\$2.41)	(\$17.59)	(\$9.32)	(\$11.60)	(\$25.65)

Trading Statistics (C\$): Capital Structure		Ownership (M)		Shares O/S (M) - Basic/Diluted		Working Capital		Options		Warrants		Total Cash & ITM	
52 Week High/Low	\$0.28 / \$0.11	Insider	Institutional	184	197	Av Strike (C\$)	Units (M)	ITM Units (M)	Proceeds (C\$)				
Average Daily Volume	78,225	15,317,491	11,176,308			\$0.43	5.68	0.00	\$0	\$0.35	7.52	0.00	\$0
		8.3%	6.0%			\$0.38	13.21	0.00	\$0				

Sum-of-Parts Valuation						
Project	Location	M&I Resource (lbs)	Forecast Resource	Valuation	Per Share	EV/lb
Dewey Burdock	S. Dakota, USA	8.58	24.22	\$150.6	\$0.45	\$6.2
Gas Hills	Wyoming, USA	4.73	7.26	\$14.2	\$0.04	\$2.0
Aladdin	Wyoming, USA	1.04	1.14	\$1.0	\$0.00	\$0.9
Juniper Ridge	Wyoming, USA	6.01	6.19	\$6.0	\$0.02	\$1.0
Shirley Basin	Wyoming, USA	0.00	0.00	\$0.0	\$0.00	NM
Dewey Terrace	Wyoming, USA	0.00	0.00	\$0.0	\$0.00	NM
Savageton	Wyoming, USA	0.00	0.00	\$0.0	\$0.00	NM
Centennial	Colorado, USA	10.37	12.70	\$10.4	\$0.03	\$0.8
Kyzyl Ompul (70%)	Kazakhstan	0.00	7.51	\$0.0	\$0.00	\$0.0
Total		30.7	59.0	\$182.2	\$0.54	\$3.1
Corp. Adjustments				(\$0.02)	\$0.00	
P/NAV Multiple	0.7x					
Valuation (US\$)				\$127.6	\$0.38	\$2.2
Valuation (C\$)				\$164.5	\$0.50	\$2.8

Target Price Sensitivities		Valuation/Shr							
Model Input	Base	-30%	-20%	-10%	-5%	+5%	+10%	+20%	
Resource Upside	\$0.50	\$0.40	\$0.45	\$0.45	\$0.50	\$0.50	\$0.50	\$0.55	
Initial CAPEX (US\$M)	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50	
Recovery Rate	\$0.50	\$0.30	\$0.40	\$0.45	\$0.45	\$0.50	\$0.55	\$0.60	
Uranium Price	\$0.50	\$0.25	\$0.30	\$0.40	\$0.45	\$0.55	\$0.55	\$0.65	
Discount Rate	\$0.50	\$0.65	\$0.60	\$0.55	\$0.50	\$0.45	\$0.45	\$0.40	
P/NAV Multiple	\$0.40	\$0.30	\$0.35	\$0.40	\$0.40	\$0.45	\$0.45	\$0.50	
Leverage	\$0.50	\$0.45	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50	
Interest Rate	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50	
Equity Issue Price	\$0.50	\$0.40	\$0.45	\$0.45	\$0.50	\$0.50	\$0.50	\$0.50	
USD/CAD	\$0.50	\$0.35	\$0.40	\$0.45	\$0.45	\$0.50	\$0.55	\$0.60	
Surface Royalties	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50	\$0.50	
Average	\$0.48	Min	\$0.25	Max	\$0.65	Std. Dev	7.2%		



Dewey Burdock Resource & Haywood Mining Concept						
Current Resource (M&I)	Current Resource (Total)	Forecast Resource	Grade	Recovery	Dilution	Process Yield
8,582,000	12,110,000	24,220,000	0.2%	80%	2%	100%
CAPEX/OPEX			Other Model Assumptions			
Initial CAPEX (US\$M)	\$30	Steady State Annual Production (M lbs)				1.76
LoM Sustaining CAPEX (US\$M)	\$146	LoM Production (M lbs)				19.02
LoM Cash Operating Cost (US\$/lb)	\$17	Mine Life (Y)				11.00
LoM Total Cash Opex & Capex (US\$/lb)	\$27	LoM Gross Revenue (US\$M)				\$1,237
		LoM Operating CF (US\$M)				\$779

Dewey Burdock Production Profile						
	2023	2024	2025	2026	2027	2028
Total Uranium Production (lbs)	176,145	1,233,018	1,761,455	1,761,455	1,761,455	1,761,455
Reserve Profile (lbs)	19,203,308	17,994,467	16,267,551	14,540,635	12,813,718	11,086,802

Website:	www.azargauranium.com	Tel:	604-536-2711
Key Executive:	Steele, Blake CEO & Director		
Colin Healey, MBA - Research Analyst chealey@haywood.com 604-697-6089		Aazan Habib, CFA, CMT - Market Analyst ahabib@haywood.com 604-697-6030	

Source: Haywood Securities Inc., Bloomberg, CapitalIQ, UxC, Company Reports



Denison Mines Corp.	TSX:DML Price: CDN \$0.49	Shares O/S (M)	622.2	Rating: Buy
	AMEX:DNN Price: US \$0.38	MCap (CDN\$ M)	\$301.8	Target (CDN \$): \$1.60
				Return: 230%

Alpha: Denison Mines is focused on becoming the preeminent exploration company in the Athabasca Basin. Following the sale of its U.S. assets, the Company has continued to expand its portfolio of strategic assets organically, and through strategic acquisition and investment in mainly in the eastern Athabasca Basin, Saskatchewan. Denison has a 22.5% interest in the McClean Lake mill.

Investment Highlights

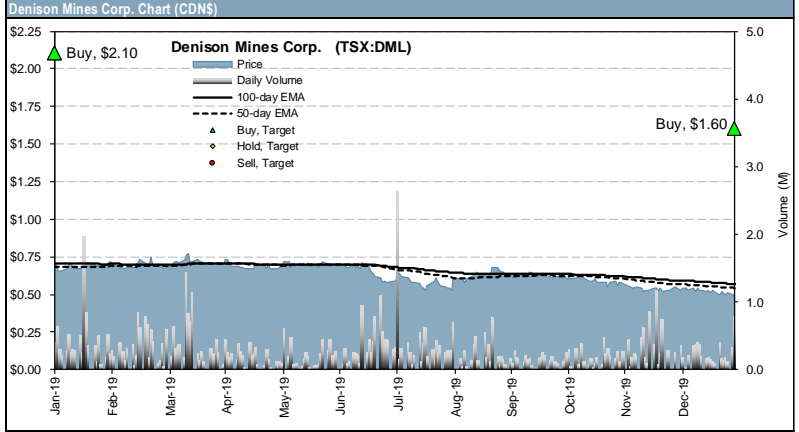
- Denison is focused on building on its diverse strategic asset base making up its portfolio of uranium development assets in Canada.
- Denison's 2019 exploration programs will focus extensively on the Phoenix Deposit ISR wellfield test work. The Company has announced exploration budgets on a 100%-basis for the 90%-owned Wheeler River project of: 2018 - C\$6.0M.
- Denison increased its interest in the flagship Wheeler River Project from 63.3% to 90% through a transaction with Cameco in late 2018. DML was able to add interest in the project at a fraction of the value implied by the Sept. 2018 Pre-Feasibility Study which we believe to be accretive to the Company.

Catalysts:

Q1/2020 - Completion of the hydrogeological model of the Phoenix deposit facilitating detailed planning for additional ISR field tests and provide data for a future FS.

2020 - Further metallurgical study of the ISR mining approach at Phoenix including ongoing core leach and column leach testing, bench-scale testing of components of the flow-sheet.

2020 - Results of eastern Athabasca Basin exploration programs

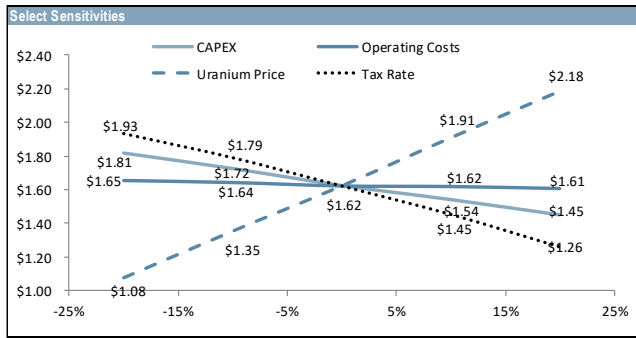


Financials					
(Year End 12/31)	2016	2017	2018	2019e	2020e
Forecast U308 Spot Price, US\$/lb	\$26	\$22	\$25	\$26	\$39
Forecast U308 LT Contract Price, US\$/lb	\$40	\$31	\$31	\$32	\$46
C\$/US\$ FX Rate	1.33	1.35	1.33	1.33	1.29
A\$/US\$ FX Rate	1.34	1.38	1.38	1.45	1.41
Shares O/S, millions	540.7	559.2	589.2	590.2	590.2
Revenue, C\$M	\$18.6	\$16.1	\$15.6	\$13.0	\$10.5
Mine Site Expense	\$12.4	\$14.3	\$13.8	\$15.9	\$8.6
Corporate G&A	\$7.3	\$7.5	\$8.6	\$8.0	\$8.0
EBITDA	(\$12.6)	(\$12.7)	(\$15.8)	(\$22.3)	(\$6.1)
EV / EBITDA	-	-	-	-	-
DD&A	\$5.4	\$9.1	\$8.6	\$0.0	\$0.0
Earnings	(\$23.2)	(\$19.6)	(\$30.1)	(\$22.1)	(\$6.0)
Adjusted EPS, US\$	(\$0.04)	(\$0.04)	(\$0.05)	(\$0.04)	(\$0.01)
Current Price / EPS	-	-	-	-	-
Target Price / EPS	-	-	-	-	-
Cash Flow Before W/C Changes	(\$13.3)	\$18.3	(\$21.3)	(\$33.5)	(\$17.3)
CFPS, C\$	(\$0.02)	\$0.03	(\$0.04)	(\$0.06)	(\$0.03)
Current Price / CFPS	-	11.9x	-	-	-
Target Price / CFPS	-	39.2x	-	-	-
Operating Cash Flow, US\$M	(\$11)	\$17	(\$21)	(\$33)	(\$17)
Financing Cash Flow, US\$M	\$12	\$19	\$5	\$15	\$18
Investing Cash Flow, US\$M	\$8	(\$48)	\$36	\$0	\$0
Change in Cash, US\$M	\$9	(\$12)	\$20	(\$18)	\$1
Working Capital	\$13	\$35	\$19	\$9	\$10
Current Ratio	2.4x	3.2x	2.5x	1.7x	1.8x
LT Debt, US\$M	\$0	\$0	\$0	\$0	\$0
Debt as % of Capitalization	0.0%	0.0%	0.0%	0.0%	0.0%

Trading Statistics (CDN\$); Capital Structure				
52 Week High/Low	\$0.78 / \$0.50	Average Daily Volume (90 day)	266,071	
Ownership	Management / Institutional	Major Shareholders		
Shares (million)	3.20	118.24	Beutel Goodman & Company Ltd. 4.0%	
% O/S	0.5%	19.8%	Mirae Asset Global Investments Co., Ltd 2.5%	
Last Financing	23-Nov-18 C\$5.0 M - bought deal PP - 4.95M flow-through shares at \$1.01			
Shares O/S - Basic, F.D.	622.2	638.7		
(C\$M)	Av Strike (C\$)	Units (M)	ITM Units (M)	Proceeds (C\$)
Working Capital				\$39
Options	\$0.81	16.52	7.52	\$5
Convertible Bonds				
Total NWC & ITM		16.52	7.52	\$44
Market Cap (C\$)	\$290			

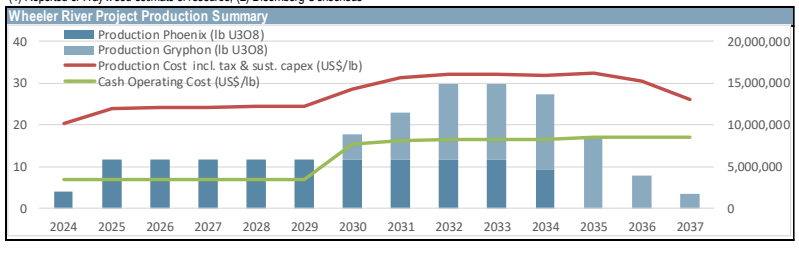
NAV Summary, Target Generation and Sensitivity						
	Base	-20%	-10%	+10%	+20%	
Average Realized U308 (US\$/lb)	\$65	\$52	\$59	\$72	\$78	
McClean Lake/Midwest DCF (C\$M)	@(10.0%)	\$21.9				
Wheeler River DCF (C\$M)	@(10.0%)	\$845.6				
NPV of Corporate CF	@(10.0%)	-\$56.4				
Total Project NAV - Net of Corporate CFs		\$811.1				
McClean Lake Mill 22.5% Value (C\$M)		\$150.0				
Canada - Waterbury, others (C\$M)		\$53.5				
Equity interest in Goviex (C\$M)		\$8.5				
Corporate NAV Subtotal (CDN\$)	\$1,023.0	\$674.5	\$851.4	\$1,205.4	\$1,381.7	
Working Capital (est. year end 2019)	\$9.0	\$9.0	\$9.0	\$9.0	\$9.0	
Dilutive Capital	\$4.8	\$4.8	\$4.8	\$4.8	\$4.8	
Corporate NAV (CDN\$)	\$1,036.8	\$688.3	\$865.2	\$1,219.2	\$1,395.5	
Corporate NAVPS	1.62	1.11	1.39	1.96	2.24	
Current P/NAV	0.3x	0.4x	0.3x	0.2x	0.2x	
Target P/NAV	1.0x	1.0x	1.0x	1.0x	1.0x	
Target (CDN\$)	\$1.60	\$1.10	\$1.40	\$2.00	\$2.20	

Bloomberg Consensus Data (excluding Haywood estimates)		
	2019	2020
OCFPS	(\$0.04)	(\$0.02)
EPS	(\$0.04)	(\$0.03)



Peer Group Comparables					
	Symbol	Price (C\$)	M.CAP C\$	EV US\$	EV / lb Res ₍₁₎
Denison Mines Corp.	TSX:DML	\$0.49	\$302	\$230.2	\$1.28
Nex Gen Energy Ltd.	TSX:NXE	\$1.43	\$515	\$494.8	\$1.42
Fission Uranium Corp.	TSX:FCU	\$0.26	\$126	\$99.1	\$0.73
UEX Corporation	TSX:UEX	\$0.11	\$43	\$31.8	\$0.32
Average					\$0.94

(1) Reported or Haywood estimate of resource, (2) Bloomberg Consensus



Sales & Production Profile					
	2024	2025	2026	2027	2028
Production Attrib. Wheeler River U ₃ O ₈ (Mlb)	2.0	5.9	5.9	5.9	5.9
Sales Attrib. Wheeler River U ₃ O ₈ (Mlb)	2.0	5.9	5.9	5.9	5.9
U ₃ O ₈ Realized Price, US\$/lb	\$65	\$65	\$65	\$65	\$65
U ₃ O ₈ Cash Cost, US\$/lb	\$7.0	\$7.0	\$7.0	\$7.0	\$7.0
U ₃ O ₈ Product. Cost after tax & sust. capex, bff interest, US\$/lb	\$20.3	\$23.8	\$24.2	\$24.3	\$24.4

Corporate Contact	
Website:	www.denisonmines.com
Tel:	416-979-1991
CEO:	Coles, David
Colin Healey, MBA - Research Analyst	Aazan Habib, CFA - Market Analyst
chealey@haywood.com 604-697-6089	ahabib@haywood.com 604-697-6030

Source: Haywood Securities Inc., Bloomberg, CapitalIQ, UxC, Company Reports



Energy Fuels Inc. NYSE.MKT:UUUU Price: \$1.52 Shares O/S (M) 100.1 Rating: Buy
 January 28, 2020 TSX:EFR Price: C\$1.98 MCap (C\$ M) \$152.2 Target (US\$): \$3.50 Return: 130%

Alpha: Energy Fuels has evolved into the United States' second largest uranium producer with the acquisition of a previous operator's U.S. assets which include the White Mesa Mill in Utah and three proximal operating mines. With the further acquisition of a U.S. based ISR miner, EFR solidifies its position as a diversified, vertically integrated explorer-developer-producer of uranium-vanadium in the USA.

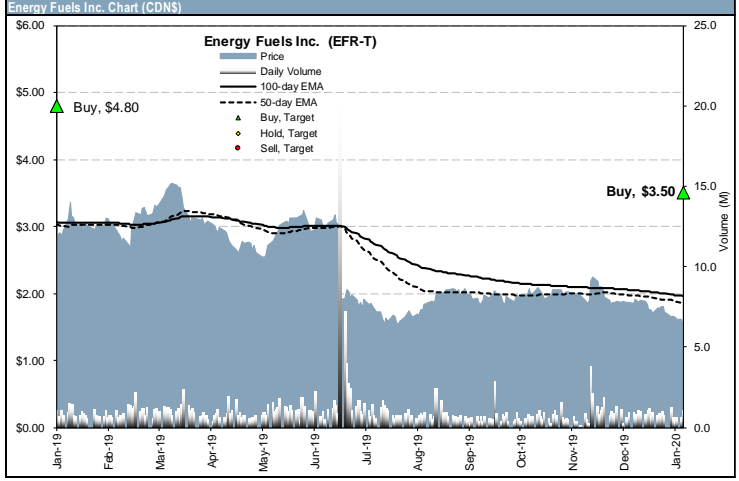
Investment Highlights

- Energy Fuels inherited 3 operating mines with its acquisition of a previous operator's US assets in 2012 in Pandora, Beaver and Daneros, and a fully staffed and operational conventional uranium / vanadium mill in White Mesa. The White Mesa mill can process up to 2,000 tons per day of ore, in excess of our peak modelled scenario leaving room for additional feed potentially from any of EFR's proximal assets, or for additional toll-milling arrangements.
- EFR controls a portfolio of historically producing uranium-vanadium mines and properties in Colorado, Arizona, Utah, Wyoming, and Texas with collective NI 43-101 resources of ~155 Mlb U3O8.
- In Q2/2016 Energy Fuels acquired Mesteña Uranium, which owned the Alta Mesa ISR uranium project in South Texas. Mesteña Uranium's Alta Mesa project is fully licensed and permitted for production of up to 1.5 Mlb U₃O₈ per year, and produced ~4.6 Mlb of uranium concentrate (U₃O₈) from 2005 to 2013, including 2 years where it produced 1.0 Mlb per year, before being placed on care and maintenance in late 2013 due to depressed uranium prices.
- In Q2/2015 Energy Fuels acquired Uranerz Energy, an emerging U.S.-based ISR uranium producer with primary producing assets in Wyoming, including the 2.0 Mlb/year (licensed) Nichols Ranch processing facility. We expect Nichols Ranch will contribute ~335klb U3O8 to 2016 production for EFR, at an average realized price in the \$35/lb range.

Catalysts

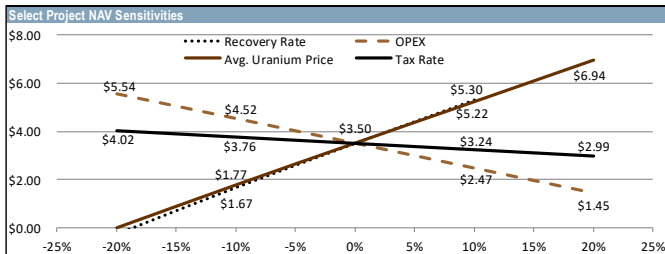
2020: Growing U.S. political support for nuclear and potential for a positive outcome or conclusion from the Trump-appointed U.S. Nuclear Fuel Working Group study of domestic uranium supply chain.

2020: Uranium price improvement leading to production ramp up and mine re-start decisions.

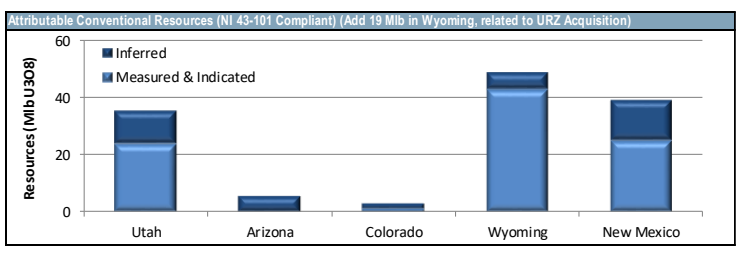
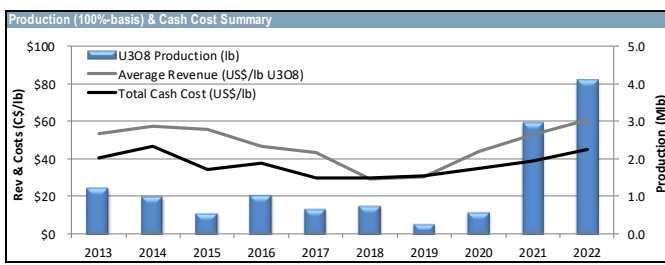


Financials & Assumptions	F'14A	F'15A	F'16A	F'17A	F'18A	F'19E	F'20E
(Year-End Dec-31)	31-Dec-14	31-Dec-15	31-Dec-16	31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20
Spot Uranium (US\$ / lb)	\$33	\$37	\$26	\$22	\$25	\$26	\$39
Long-term Uranium (US\$ / lb)	\$47	\$47	\$40	\$31	\$31	\$32	\$46
C\$/US\$ FX Rate	1.10	1.28	1.33	1.35	1.33	1.33	1.29
AS/US\$ FX Rate	1.10	1.33	1.34	1.38	1.38	1.45	1.41
Revenue (US\$M)	\$46.3	\$61.4	\$54.6	\$31.0	\$31.7	\$8.6	\$27.8
Cost of Goods Sold (US\$M)	\$29.9	\$37.6	\$40.8	\$22.7	\$19.3	\$8.9	\$19.6
Corporate G&A & Other (US\$M)	\$11.6	\$12.6	\$15.9	\$15.2	\$14.3	\$18.0	\$18.2
EBITDA (US\$M)	\$6.0	\$2.2	(\$32.6)	(\$18.0)	(\$15.7)	(\$18.1)	(\$9.2)
EV / EBITDA	19.1x	52.0x	-	-	-	-	-
DD&A (US\$M) & Write downs	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	\$0.8
Earnings (US\$M)	(\$86.6)	(\$82.2)	(\$39.4)	(\$27.8)	(\$25.2)	(\$18.1)	(\$13.6)
Adjusted EPS (US\$)	(\$4.41)	(\$2.46)	(\$0.70)	(\$0.39)	(\$0.30)	(\$0.18)	(\$0.14)
Current Price / EPS	-	-	-	-	-	-	-
Target Price / EPS	-	-	-	-	-	-	-
Cash Flow Before W/C Changes (US\$M)	(\$77.5)	(\$57.4)	(\$26.1)	(\$12.9)	(\$7.4)	(\$17.8)	(\$12.8)
Shares O/S, millions	19.7	45.3	51.9	72.0	91.4	99.8	99.8
CFPS, US\$	(\$0.39)	(\$0.05)	(\$0.23)	(\$0.14)	(\$0.09)	(\$0.20)	(\$0.22)
Current Price / CFPS	-	-	-	-	-	-	-
Target Price / CFPS	-	-	-	-	-	-	-
Operating Cash Flow (US\$M)	(\$7.7)	(\$2.1)	(\$12.0)	(\$10.3)	(\$7.8)	(\$20.3)	(\$22.0)
Financing Cash Flow (US\$M)	\$0.5	\$1.4	\$22.2	\$10.4	\$21.6	\$32.5	\$53.7
Investing Cash Flow (US\$M)	\$11.1	\$3.4	\$3.9	\$0.0	(\$20.2)	(\$10.4)	(\$60.9)
Change in Cash (US\$M)	\$3.8	\$2.6	\$14.1	\$0.6	(\$6.4)	\$1.7	(\$29.3)
Working Capital (US\$M)	\$37.8	\$35.1	\$24.0	\$33.3	\$52.0	\$35.5	\$16.5

Trading Statistics (C\$): Capital Structure			
52 Week High/Low	\$7.73 / \$1.50	Average Daily Volume (90 day)	858,725
Ownership (M)	Management / Institutional	Major Shareholders	
Shares	2,472,768	25,311,410	BlackRock, Inc. 4.6%
% O/S	2.5%	25.3%	Old West Investment Management LLC 3.4%
Last Financing			
Sep-16	\$13.1M bought deal, 7.25M units priced at \$1.80 - 1 unit includes 1 share and 1/2 warrant - 5y - x-price \$2.45		
Mar-16	\$12.1M bought deal, 5.03M units priced at \$2.40 - 1 unit includes 1 share and 1/2 warrant - 3y - x-price \$3.20		
Shares O/S (million) - Basic / FD	100,112,252	114,196,059	
(C\$M)	Av Strike (C\$)	Units (M)	ITM Units (M) Proceeds (C\$)
Working Capital		1.08	1.08 \$14.7
Options	\$0.00	6.68	0.00 \$0.0
Warrants	\$2.73	7.77	1.08 \$15
Total Cash & ITM	\$2.35	7.77	



NAV Summary & Target Generation	Base	-20%	-10%	+10%	+20%
Average Realized Uranium Price (US\$/lb)	\$63	\$51	\$57	\$59	\$76
US\$ millions					
US Conventional Mining Ops DCF (@10.0%)	\$357				
US ISR Mining Ops DCF (@10.0%)	\$179				
NPV of Corporate CF (@10.0%)	-\$207				
Total NAV (US\$M)	\$329	\$9.0	\$193.8	\$552.6	\$731.2
Other Project Credits (US\$M)	\$10.0	\$10.0	\$10.0	\$10.0	\$10.0
Corporate NAV (unadjusted) (US\$M)	\$339.0	\$19.0	\$203.8	\$562.6	\$741.2
Working Capital (est. Dec 2020)	\$35.5	\$35.5	\$35.5	\$35.5	\$35.5
Dilutive Capital	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Total Corporate NAV (US\$M)	\$374.5	\$54.5	\$239.3	\$598.1	\$776.7
Corporate NAVPS	\$3.50	-\$0.01	\$1.77	\$5.22	\$6.94
Current P/NAV	0.4x	-174.5x	0.9x	0.3x	0.2x
Target Price / NAV	1.0x	1.0x	1.0x	1.0x	1.0x
Target (US\$)	\$3.50	#NUM!	\$1.80	\$5.20	\$6.90



Production Profile (attributable)	31-Dec-14	31-Dec-15	31-Dec-16	31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20
Total U3O8 Production (Mlb)	0.8	0.2	0.7	0.4	0.5	0.3	0.3
Uranium - Realized Price, US\$/lb	\$57	\$56	\$51	\$37	\$29	\$30	\$44
Cash Oper. Cost, US\$/lb sold (net of V ₂ O ₅ credits)	\$41	\$21	\$34	\$22	\$29	\$31	\$28
Total Cash Cost, US\$/lb sold (net of V ₂ O ₅ credits)	\$46	\$33	\$40	\$27	\$30	\$31	\$34
Total Prod. Cost, US\$/lb sold (net of V ₂ O ₅ credits)	\$48	\$34	\$41	\$27	\$32	\$32	\$36

Peer Group Comparables (Haywood Securities estimates & Bloomberg Consensus Data)							
Company Name	Price (LoC)	MCAP C\$M	EV C\$M	2018 CFPS*	P/CFPS*	Cons. Target*	Implied Return
Cameco Corporation (CCO-T)	\$10.97	\$4,342	\$4,487	\$1.42	7.7x	\$15.09	38%
Uranium Energy (UEC-AMEX)	\$0.78	\$189	\$200	(\$0.03)		\$3.05	290%
Energy Fuels (UUUU-US)	\$1.52	\$198	\$197	(\$0.13)		\$4.19	176%
U+Energy Inc. (URE-T)	\$0.67	\$107	\$119	\$0.01	67.0x	\$1.75	162%
Peninsula Energy (PEN-AU)	\$0.16	\$42	\$54	(\$0.02)		\$0.55	255%
Laramide Resources (LAM-T)	\$0.19	\$31	\$41			\$0.60	216%
Azarga Uranium (AZZ-T)	\$0.20	\$37	\$36	(\$0.02)		\$0.40	100%
Western Uranium (WUC-CNSX)	\$0.80	\$24	\$21				
* Bloomberg Consensus Data				Average:	37.4x		176%

Corporate Contact

Website: www.energyfuels.com Tel: 303-974-2140
 Key Executive: Chalmers, Mark President, CEO & Director
 Colin Healey, MBA - Research Analyst
 chealey@haywood.com 604-697-6089
 Aazan Habib, CFA - Market Analyst
 ahabib@haywood.com 604-697-6030

Source: Haywood Securities Inc., Bloomberg, CapitalIQ, UxC, Company Reports



NexGen Energy Ltd.
January 28, 2020

TSX:NXE Price: \$1.43

Shares O/S (M) 360.3
MCap (C\$ M) \$515

Rating: Buy
Target (C\$): \$6.00 Return: 320%

Alpha: NexGen Energy is the premier pre-resource uranium exploration play globally, with an expansive, highly prospective land package on the southwestern perimeter of a prolific uranium district. The Athabasca Basin (Sask.) is an excellent operating jurisdiction, and home to multiple world class, ultra high-grade uranium deposits, and has an extensive history of successful uranium mine permitting and production.

Investment Highlights

- **NexGen - the Premier Global Pure Uranium Exploration Play:** With regional concentration becoming a reality, we expect NexGen will land peerless in the Athabasca Basin and globally, as it has just delivered a world class high-grade uranium resource exceeding 300 Mlb U3O8, setting up well for expansion, where the Arrow deposit remains open in most directions with growth potential both within the Arrow Zone, and from elsewhere within NexGen's expansive western Athabasca assets.
- **Making the Grade:** Drilling to-date at Arrow zone has enjoyed a >90% hit rate for uranium mineralization, but perhaps more importantly, has intersected some of the most strongly mineralized (by Grade x Thickness, GT) intervals ever reported globally: **Hole AR-15-44b delivered a total composite GT of 853.55 metres, with highlight intervals of 20 metres grading 20.68% U3O8, within 56.5 metres grading 11.55% U3O8.** NexGen has put up the type of headlinesmashing grades we have come to expect from the Athabasca Basin. In February 2016, NexGen upped the stakes at Arrow when it pierced the A3 shear zone, which is evolving to be substantially larger than the A2 shear, albeit at lower apparent grade. Both have returned enviable high-grade intercepts over significant widths.
- **Expansive Land Package with Exploration Upside:** When looking for needles in a haystack, it helps to be the dominant owner of the haystack: NexGen's Rook 1 claims represent the largest aggregate land position of any claimholder in the southwestern region of the Athabasca Basin.

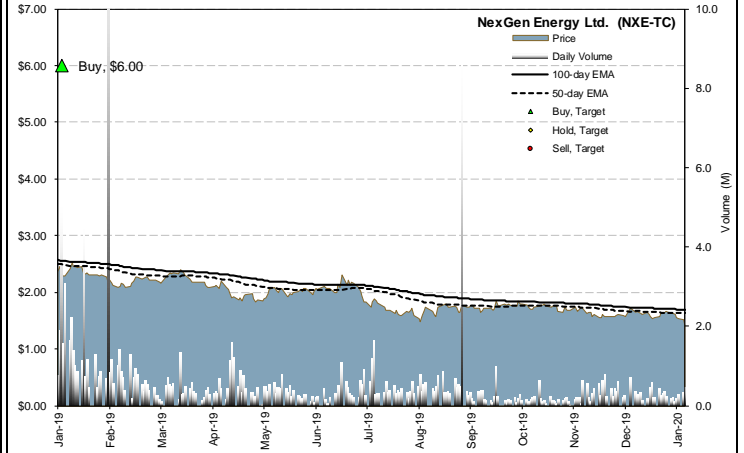
Catalysts

H1 2020: Feasibility Study results

Q3 2020: Environmental Assessment of Arrow

2020: NexGen Remains financed to a construction decision at Arrow. The Feasibility study is >70% complete and 2020 technical work will include detailed engineering and permitting advancement.

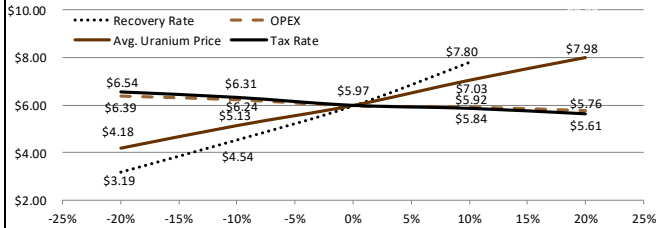
NexGen Energy Ltd. Chart (CDNS)



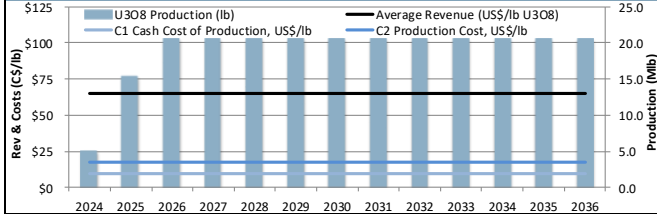
Financials & Assumptions	F'14A	F'15A	F'16A	F'17A	F'18A	F'19E	F'20E
(Year-End Dec-31)	31-Dec-14	31-Dec-15	31-Dec-16	31-Dec-17	31-Dec-18	31-Dec-19	31-Dec-20
Spot Uranium (US\$/lb)	\$33	\$37	\$26	\$22	\$25	\$26	\$39
Long-term Uranium (US\$/lb)	\$47	\$47	\$40	\$31	\$31	\$32	\$46
C\$/US\$ FX Rate	1.10	1.24	1.24	1.26	1.21	1.32	1.21

Revenue (C\$M)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Cost of Goods Sold (C\$M)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Corporate G&A (C\$M)	\$3.4	\$4.9	\$13.8	\$17.0	\$29.6	\$26.6	\$26.7
EBITDA (C\$M)	(\$3.4)	(\$4.9)	(\$14.0)	(\$17.2)	(\$29.9)	(\$26.6)	(\$26.7)
EV / EBITDA							
DD&A (C\$M) & Write downs	\$0.1	\$0.3	\$0.7	\$0.9	\$2.1	\$1.9	\$1.9
Earnings (C\$M)	(\$8.4)	(\$4.6)	(\$16.9)	(\$56.0)	\$2.8	(\$38.0)	(\$37.7)
Adjusted EPS (C\$)	(\$0.06)	(\$0.02)	(\$0.06)	(\$0.17)	\$0.01	(\$0.10)	(\$0.09)
Current Price / EPS	-	-	-	-	179.5x	-	-
Target Price / EPS	-	-	-	-	753.2x	-	-
Cash Flow Before W/C Changes (C\$M)	(\$1.9)	(\$3.3)	(\$10.4)	(\$13.8)	(\$10.1)	(\$19.5)	(\$19.2)
Shares O/S, millions	196.9	287.2	307.6	328.1	349.9	381.6	410.5
CFPS, C\$	(\$0.01)	(\$0.01)	(\$0.03)	(\$0.03)	(\$0.03)	(\$0.05)	(\$0.05)
Current Price / CFPS	-	-	-	-	-	-	-
Target Price / CFPS	-	-	-	-	-	-	-
Operating Cash Flow (C\$M)	(\$2.0)	(\$2.7)	(\$8.0)	(\$11.1)	(\$10.3)	(\$19.5)	(\$19.2)
Financing Cash Flow (C\$M)	\$21.2	\$45.6	\$95.1	\$135.1	\$2.9	\$59.4	\$110.6
Investing Cash Flow (C\$M)	(\$12.9)	(\$22.4)	(\$91.3)	\$9.6	(\$45.8)	(\$54.6)	(\$54.6)
Change in Cash (C\$M)	\$6.3	\$20.5	(\$3.2)	\$133.9	(\$48.4)	(\$14.6)	\$36.8
Working Capital (C\$M)	\$12.4	\$33.8	\$77.0	\$162.6	\$144.7	\$130.1	\$166.8

Select Project NAV Sensitivities



Production (100%-basis) & Cash Cost Summary



Production Profile (attributable)	31-Dec-23	31-Dec-24	31-Dec-25	31-Dec-26	31-Dec-27	31-Dec-28	31-Dec-29
Total U3O8 Production (Mlb)	-	5.1	15.4	20.5	20.5	20.5	20.5
Uranium - Realized Price, US\$/lb	-	\$65	\$65	\$65	\$65	\$65	\$65
C1 Cash Cost of Production, US\$/lb	-	\$10	\$10	\$10	\$10	\$10	\$10
C2 Production Cost, US\$/lb	-	\$18	\$18	\$18	\$18	\$18	\$18
Production Cost, US\$/lb (incl. royalties, interest)	-	\$54	\$37	\$34	\$33	\$32	\$31
All-in After Tax Prod. Cost, US\$/lb	-	\$57	\$44	\$42	\$41	\$41	\$40

Trading Statistics (C\$): Capital Structure			
\$2 Week High/Low	\$2.59 / \$1.46	Average Daily Volume (90 day)	284,662
Ownership (M)	Management/ Institutional	Major Shareholders	
Shares	3,936,250	112,088,575	Li Ka Shing (Overseas) Foundation, Endowmer 3.8%
% O/S	1.1%	31.1%	Russell Investment Management, LLC 3.0%
Last Financing			
Dec-15	\$21M bought deal, 32.8M common shares priced at \$0.64		
May-15	\$23.7M bought deal, 47.48M common shares priced at \$0.50		
Shares O/S (million) - Basic / FD	360,250,571	/	408,262,905
(C\$M)	Av Strike (C\$)	Units (M)	ITM Units (M) Proceeds (C\$)
Working Capital			\$72.1
Options	\$0.50	22.22	22.22 \$11.0
Warrants		0.00	0.00 \$0
Total Cash & ITM	\$0.50	22.22	22.22 \$83

NAV Summary, Target Generation and Sensitivity					
	Base	-20%	-10%	+10%	-20%
Average Realized Uranium Price (US\$/lb)	\$65	\$52	\$59	\$72	\$78
C\$ millions					
Rook 1 (Arrow) Mine DCF	(@9.0%)	\$2,623			
NPV of Corporate CF	(@9.0%)	-\$248			
Total NAV (C\$M)	\$2,375	\$1,787.8	\$2,190.3	\$2,997.6	\$3,401.8
Other Project Credits (C\$M)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Corporate NAV (unadjusted) (C\$M)	\$2,374.8	\$1,787.8	\$2,190.3	\$2,997.6	\$3,401.8
Working Capital (est. Dec 2020)	\$166.8	\$166.8	\$166.8	\$166.8	\$166.8
Dilutive Capital	\$11.0	\$11.0	\$11.0	\$11.0	\$11.0
Total Corporate NAV (C\$M)	\$2,552.6	\$1,965.6	\$2,368.1	\$3,175.4	\$3,579.7
Corporate NAVPS	\$5.97	\$4.18	\$5.13	\$7.03	\$7.98
Current P/NAV	0.2x	0.3x	0.3x	0.2x	0.2x
Target Price / NAV	1.0x	1.0x	1.0x	1.0x	1.0x
Target (C\$)	\$6.00	\$4.20	\$5.10	\$7.00	\$8.00

Rook 1 - Arrow Zone - Conceptual Resource & Mining Concept - Underlying Mining Inventory Assumption

Haywood Est. Mining Inventory	k Tonnes	Grade (% U3O8)	In situ U3O8 (M)lb
	2,280	5.21%	261.8

Rook 1 - Arrow Zone - Conceptual Resource & Mining Concept - Underlying Cost Assumptions

CAPEX	US\$ M	OPEX	US\$/t
Total Pre-Production CAPEX	1091.5		
Sustaining Capital, Closure & Reclamation	258.3		
LoM Total CAPEX	1349.8	OPEX per t RoM ore: (incl. surface G&A)	955.5

Peer Group Comparables (Haywood Securities estimates & Bloomberg Consensus Data)

Company Name	Price (LoC)	MCAP C\$M	EV C\$M	2018 CFPS*	P/CFPS*	Cons. Target*	Implied Return
NexGen Energy (NXE-T)	\$1.43	\$515	\$580	(\$0.05)		\$5.43	280%
Denison Mines (DML-T)	\$0.49	\$290	\$280	(\$0.04)		\$1.26	159%
Fission Uranium (FCU-T)	\$0.26	\$126	\$120	(\$0.01)		\$2.02	676%
UEX Corporation (UEX-T)	\$0.11	\$43	\$40			\$0.50	355%

*** Bloomberg Consensus Data**

Average:	N/A					367%
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Corporate Contact

Website: www.nexgenenergy.ca Tel: 604-428-4112
Key Executive: Curver, Leigh Founder, President, CEO & Director
Colin Healey, MBA - Research Analyst chealey@haywood.com 604-697-6089
Aazan Habib, CFA - Market Analyst ahabib@haywood.com 604-697-6030

* Production Cost and All-in Production Cost are calculated based on a selling price of US\$70/lb U3O8, and fall proportionately with reduction in uranium price assumption, as they include revenue and profit sensitive costs (e.g., taxes, royalties).

Source: Haywood Securities Inc., Bloomberg, CapitalIQ, UxC, Company Reports



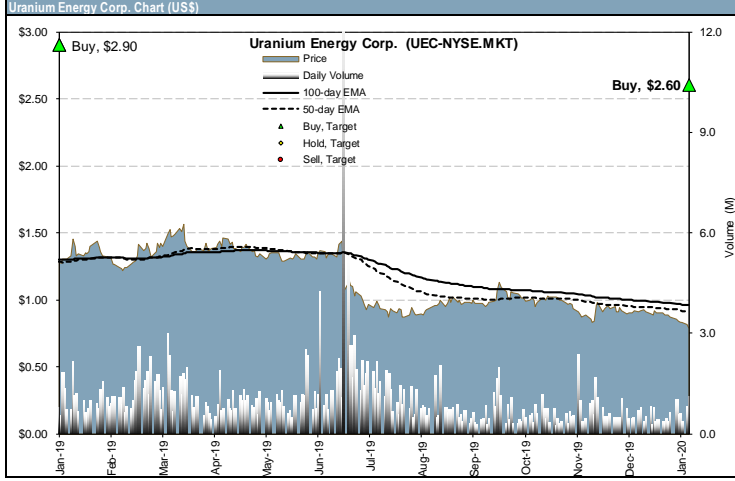
Uranium Energy Corp. NYSE:MKT:UEC Price: \$0.78 Shares O/S (M) 183.7 Rating: Buy
 January 28, 2020 MCap (US\$ M) \$144 Target (US\$): \$2.60 Return: 232%

Alpha: Uranium Energy Corp (AMEX: UEC) is a uranium producer from the Hobson ISR Plant in South Texas, USA. Palangana production is expected to be augmented by output from the Burke Hollow and Goliad projects forecast for production commencement in CY2021, but with all permitting in place, a surge in uranium price could accelerate this timeline.

Investment Highlights

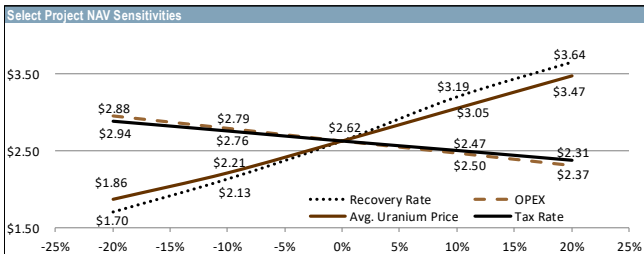
- Uranium producer via ISR mining with a strategic collection of uranium resources throughout United States (e.g., Hobson Uranium ISR Plant, Palangana satellite ISR facility)
- Specialized technical team that has permitted and constructed Uranium ISR facilities
- Goliad property: NI 43-101 indicated resource of 5.48 million pounds at 0.05 % U₃O₈ and inferred resource of 1.50 million pounds at 0.05 % U₃O₈.
- Nichols property: NI 43-101 inferred resource of 1.31 million pounds at 0.07 % U₃O₈.
- La Palangana property: NI 43-101 M&I resources of 1.05 million pounds at 0.134 % U₃O₈
- Seager-Salvo property: NI 43-101 inferred resources of 2.84 million pounds at 0.08 % U₃O₈
- Burke Hollow property: NI 43-101 inferred resources of 7.09 million pounds at 0.047 % U₃O₈
- Hobson ISR Uranium plant, South Texas (~3.0 Mlb U₃O₈ Yr⁻¹ capacity)
- Potential to expand uranium resource base around known resources in Texas

Catalysts:
H1/2020: Permitting and field advancement at Burke Hollow - TCEQ issuance of final Radioactive Materials License
2020: Potential for bullish outcome of U.S. Nuclear Fuel Working Group

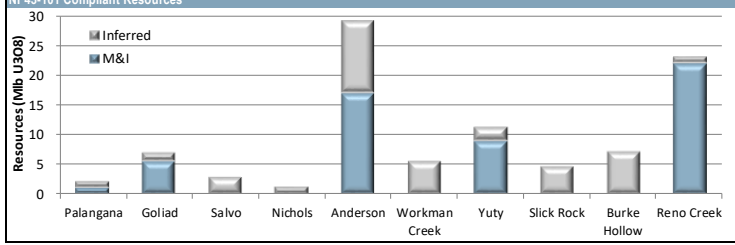
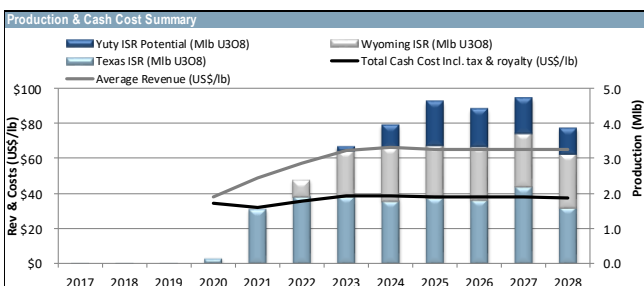


Financials & Assumptions	F'15A	F'16A	F'17A	F'18A	F'19E	F'20E	F'21E
(Year-End Jul-31)	31-Jul-15	31-Jul-16	31-Jul-17	31-Jul-18	31-Jul-19	31-Jul-20	31-Jul-21
Spot Uranium (US\$ / lb)	\$39	\$31	\$24	\$24	\$25	\$34	\$43
Long-term Uranium (US\$ / lb)	\$47	\$43	\$35	\$31	\$31	\$40	\$51
C\$/US\$ FX Rate	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
A\$/US\$ FX Rate	\$1.23	\$1.34	\$1.36	\$1.38	\$1.42	\$1.43	\$1.38
Revenue (US\$M)	\$3.1	\$0.0	\$0.0	\$0.0	\$0.0	\$5.7	\$75.8
Cost of Goods Sold (US\$M)	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$3.4	\$36.7
Corporate G&A (incl. stock based comp) (US\$M)	\$13.2	\$9.3	\$10.2	\$10.9	\$8.5	\$6.7	\$8.8
EBITDA (US\$M)	(\$17.8)	(\$13.4)	(\$14.4)	(\$15.5)	(\$12.8)	(\$6.3)	\$29.0
EV / EBITDA							3.5x
DD&A (US\$M)	\$3.2	\$2.1	\$1.7	\$1.5	\$0.0	\$0.3	\$1.6
Earnings (US\$M)	(\$23.4)	(\$17.3)	(\$18.0)	(\$17.8)	(\$14.6)	(\$8.1)	\$13.6
Adjusted EPS (US\$)	(\$0.25)	(\$0.16)	(\$0.14)	(\$0.11)	(\$0.08)	(\$0.04)	\$0.06
Current Price / EPS							9.8x
Target Price / EPS							32.7x
Cash Flow Before WC Changes (US\$M)	(\$20.8)	(\$16.4)	(\$17.2)	(\$17.5)	(\$14.6)	(\$7.8)	\$15.2
Shares O/S, millions	98	116	139	160	175	191	226
CFPS, US\$	(\$0.13)	(\$0.12)	(\$0.08)	(\$0.08)	(\$0.09)	(\$0.04)	\$0.07
Current Price / CFPS							8.9x
Target Price / CFPS							29.6x
Operating Cash Flow (US\$M)	(\$12.3)	(\$13.1)	(\$10.4)	(\$12.5)	(\$15.2)	(\$8.1)	\$15.1
Financing Cash Flow (US\$M)	\$9.7	\$10.2	\$26.9	\$0.6	\$23.0	\$25.5	\$98.8
Investing Cash Flow (US\$M)	\$3.9	(\$0.1)	(\$11.0)	\$6.3	\$7.3	(\$0.0)	(\$80.0)
Change in Cash (US\$M)	\$1.3	(\$2.9)	\$5.4	(\$5.6)	\$15.1	\$17.4	\$33.9
Working Capital (US\$M)	\$6.2	\$6.2	\$21.1	(\$4.0)	\$14.9	\$32.3	\$66.2

Trading Statistics (C\$): Capital Structure		52 Week High/Low		Average Daily Volume (90 day)	
Ownership (M)		Management / Institutional		Major Shareholders	
Shares	4,112,625	60,895,356	BlackRock, Inc.		6.6%
% O/S	2.2%	33.2%	Pacific Road Capital Management Pty Limited		4.8%
Last Financing					
4-Oct-18		\$20 million - Equity financing (12.6 million units at \$1.60, incl 1 share + 1/2 warrant at x-price of \$2.05 for 2.5y)			
20-Jan-17		\$26 million - Equity financing (17.3 million units at \$1.50, incl 1 share + 1/2 warrant at x-price of \$2 for 3y)			
Shares O/S (million) - Basic / FD	183,673,815	/	218,304,100		
(CSM)		Av Strike (C\$)		Units (M)	
Working Capital		\$1.41		14.74	
Options		\$1.94		19.44	
Warrants		\$1.71		34.18	
Total Cash & ITM		\$1.71		34.18	
ITM Units (M)		0.00		0.00	
Proceeds (C\$)		\$13.1		\$0.0	
		\$0.0		\$0.0	
		\$1.94		0.00	
		\$1.71		0.00	
		\$1.71		34.18	
		\$1.71		34.18	



NAV Summary, Target Generation and Sensitivity	Base	-20%	-10%	+10%	+20%
Average Realized Uranium Price (US\$/lb)	\$62	\$49	\$55	\$68	\$74
Paraguay - Yuty NAV10% (US\$M)	@(10.0%)	\$61.5			
Wyoming - Reno Creek (US\$M)	@(8.0%)	\$265.4			
Goliad-Hobson DCF (US\$M)	@(8.0%)	\$235.9			
NPV of Corporate CF	@(8.0%)	-\$77.5			
Total NAV (US\$M)	\$485.3	\$433.0	\$511.7	\$703.5	\$799.5
Other Texas Assets (US\$M)	\$30.0	\$30.0	\$30.0	\$30.0	\$30.0
Ex-Texas (US\$M)	\$60.0	\$60.0	\$60.0	\$60.0	\$60.0
Corporate NAV (unadjusted) (US\$M)	\$575.3	\$523.0	\$601.7	\$793.5	\$889.5
Working Capital (est July 2020)	\$32.3	\$34.3	\$34.3	\$34.3	\$34.7
Dilutive Capital	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Total Corporate NAV (US\$M)	\$607.6	\$557.3	\$636.0	\$827.8	\$924.2
Corporate NAVPS	\$2.62	\$1.86	\$2.21	\$3.05	\$3.47
Current P/NAV	0.3x	0.5x	0.5x	0.3x	0.3x
Target P/NAV	1.0x	1.0x	1.0x	1.0x	1.0x
Target (US\$)	\$2.60	\$1.90	\$2.20	\$3.00	\$3.90



Production Profile	31-Jul-17	31-Jul-18	31-Jul-19	31-Jul-20	31-Jul-21	31-Jul-22	31-Jul-23
Total U3O8 Production (Mlb)	0.0	0.0	0.0	0.2	1.6	2.4	3.2
Uranium - Realized Price, US\$/lb	\$32	\$29	\$30	\$38	\$49	\$56	\$63
Cash Operating Cost, US\$/lb sold	\$18	\$18	\$18	\$18	\$18	\$18	\$19
Total Cash Cost (incl. tax & royalty), US\$/lb sold	\$32	\$29	\$30	\$34	\$32	\$34	\$37

Peer Group Comparables (Haywood Securities estimates & Bloomberg Consensus Data)							
Company Name	Price (LoC)	MCAP CSM	EV CSM	2018 CFPS*	P/CFPS*	Cons. Target*	Implied Return
Uranium Energy (UEC-AMEX)	\$0.78	\$189	\$200	(\$0.07)		\$3.05	290%
Energy Fuels (EFR-T)	\$1.98	\$198	\$197	(\$0.04)		\$5.50	178%
Ur-Energy Inc. (URE-T)	\$0.67	\$108	\$119	\$0.05	12.6x	\$1.75	162%
Peninsula Energy (PEN-AU)	\$0.16	\$42	\$54	-		\$0.55	255%
Alliance Resources (AGS-AU)	\$0.11	\$15	\$12				
Westwater Resources, (URRE-US)	\$0.00	\$8	\$8				
Bloomberg Consensus Data					Average:	12.6x	221%

Corporate Contact
 Website: www.uraniumenergy.com Tel: 361-888-8235
 Key Executive: Amir Adnani, President, CEO, Principal Executive Officer & Director
 Colin Healey, MBA - Research Analyst Aazan Habib, CFA, CMT - Market Analyst
 chealey@haywood.com 604-697-6089 ahabib@haywood.com 604-697-6030

Source: Haywood Securities Inc., Bloomberg, CapitalIQ, UxC, Company Reports



Uranium Participation Corporation

January 28, 2020 TSX:U Price: CDN \$3.97

Comment: Uranium Participation Corp (TSX:U) is a uranium inventory fund holding physical natural uranium (e.g., U₃O₈ and uranium hexafluoride) with the objective of increasing the value of its uranium holdings, and offers investors indirect exposure to unhedged uranium commodity.

Shares O/S (M) 138.1 **Rating:** Buy

Mcap (C\$ M) \$548.1 **Target:** \$5.90 **Return:** +49%

Investment Highlights

- Uranium Participation offers a two-fold opportunity for return:

- 1) Current market valuation implies US\$23.10 per pound U₃O₈
- 2) Our spot uranium price forecast is US\$39 per pound U₃O₈ by the end of 2020 and \$47 by the end of 2021, offering great upside based on the present spot price of \$24.35/lb

Our uranium spot forecast reflects our belief in strong long-term fundamentals in the uranium sector, with increasing global demand spurred on by developing countries (e.g., China, Russia, India) expanding nuclear power generation capacity, and finite secondary sources gradually diminishing. In addition, several production delays and successively reduced production guidance from several uranium producers and near-term producers further stimulates support for the uranium commodity market price.

Furthermore, plans for 'proposed' reactors in the globally will continue through the protracted licensing process, with the eventual commissioning of new reactors, further stimulating future demand.

Catalysts:

- Uranium spot price movement: our 2020 U₃O₈ exit spot price is US\$39.00/lb, a 61% increase over current.
- Currency exchange variations between Canadian and United States dollars.
- HF₆ conversion rate changes (e.g., U₃O₈ to UF₆) due to bottle necks.
- Major production delays, disruptions or shuttering, and/or the re-emergence of financial players in uranium commodity trading.

Uranium Participation Corporation Chart

Current Market Value of Equity vs Net Asset Value per share

Trading Statistics (C\$): Capital Structure

52 Week High / Low	\$5.14 / \$3.78	Average Daily Vol ('000)	278.982
TSX:U			

Ownership (M)	Management	Institutional	Major Shareholders
Shares	0.09	63.00	Kopernik Global Investors, LLC
% O/S	0.1%	45.6%	Wellington Management Group LLP

Last Financings			
31-May-18	\$23.0 million	Bought Deal	5.6 M common shares @ \$4.10
4-Oct-17	\$40.6 million	Bought Deal	11.6 M common shares @ \$3.50
Shares O/S - Basic, F.D.			138.1 / 138.1

(C\$) (M)	Av Strike	Basic	ITM	Proceeds
Cash & Equiv.				\$4.7
Options		0.00	0.00	\$0.0
Warrants		0.00	0.00	\$0.0
Total Cash & ITM		0.00	0.00	\$4.7

Peer Group Companies	Price (\$)	52-week Ret	Price v Spot	Returns v Spot	
TSX:U	Uranium Participation Corp	\$3.97	-16.2%	90.4%	75.0%
TSX:CCO	Cameco Corporation	\$10.98	-31.3%	68.9%	22.0%
TSX:DML	Denison Mines Corp.	\$0.49	-29.7%	62.2%	40.0%
AMEX:UEC	Uranium Energy Corp.	\$0.77	-39.6%	-7.5%	27.4%
ASX:PDN	Paladin Energy Limited	\$0.08	-53.3%	59.3%	-1.1%
TSX:EFR	Energy Fuels Inc.	\$2.00	-46.7%	78.8%	32.5%
TSX:NXE	NexGen Energy Ltd.	\$1.44	-39.2%	-20.4%	52.1%

Uranium Production vs Demand

Summary, Target Generation and Sensitivity

Uranium Spot Price	Base	-20%	-10%	+10%	+20%
\$US lb U ₃ O ₈	\$35.0	\$28	\$32	\$39	\$42
NAV (C\$ M)	\$812	\$657	\$734	\$890	\$967
NAV per share	\$5.88	\$4.76	\$5.32	\$6.44	\$7.01
P / NAV	1.0 x	1.0 x	1.0 x	1.0 x	1.0 x
NAVPS Target	\$5.90	\$4.80	\$5.30	\$6.40	\$7.00

CAD:USD FX Rate	Base	-20%	-10%	+10%	+20%
C\$	\$1.33	\$1.06	\$1.19	\$1.46	\$1.59
NAV (C\$ M)	\$812	\$650	\$731	\$893	\$974
NAV per share	\$5.88	\$4.70	\$5.29	\$6.47	\$7.06
P / NAV	1.0 x	1.0 x	1.0 x	1.0 x	1.0 x
NAVPS Target	\$5.90	\$4.70	\$5.30	\$6.50	\$7.10

Historical and Forecast Uranium Prices

Corporate Contact

President: David Cates	
Telephone: 416-979-1991	
Website: www.uraniumparticipation.com	
Colin Healey, MBA - Research Analyst	Aazan Habib - Market Analyst
chealey@haywood.com 604-697-6089	ahabib@haywood.com 604-697-6030

Source: Haywood Securities Inc., Bloomberg, CapitalIQ, UxC, Company Reports

Colin Healey, MBA 604-697-6089, chealey@haywood.com
 Aazan Habib, CFA, CMT 604-697-6030, ahabib@haywood.com

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I, Colin Healey, hereby certify that the views expressed in this report (which includes the rating assigned to the issuer's shares as well as the analytical substance and tone of the report) accurately reflect my/our personal views about the subject securities and the issuer. No part of my/our compensation was, is, or will be directly or indirectly related to the specific recommendations.

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Of the companies included in the report the following Important Disclosures apply:

	Ticker	Company	1	2	3	4	5	6	7	8
	TSX:AZZ	Azarga Uranium Corp		X	X					
	TSX:DML	Denison Mines Corp.			X	X				
	AMEX:UUUU	Energy Fuels Inc.			X					
	TSX:NXE	NexGen Energy Ltd.			X					
	TSXV:PLU	Plateau Energy Metals Inc.		X	X		X	X		
	AMEX:UEC	Uranium Energy Corp.			X					
	TSX:U	Uranium Participation Corporation								
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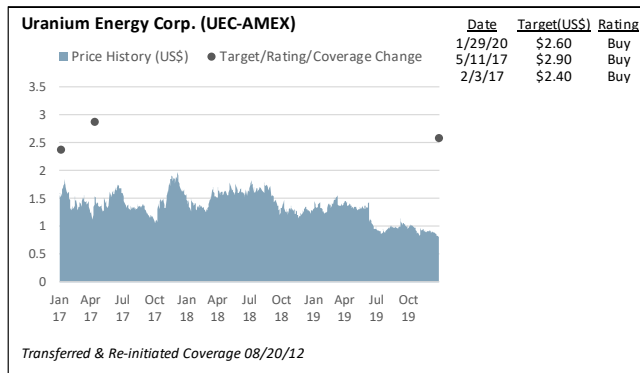
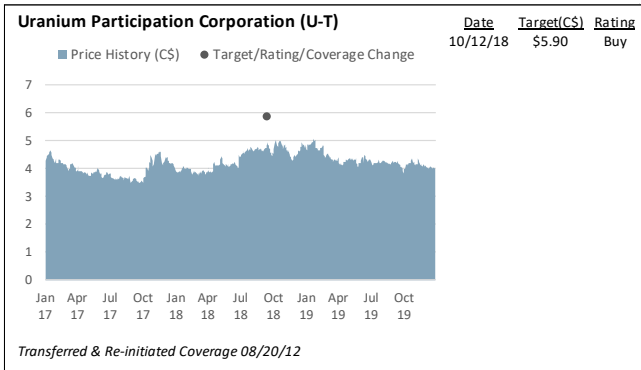
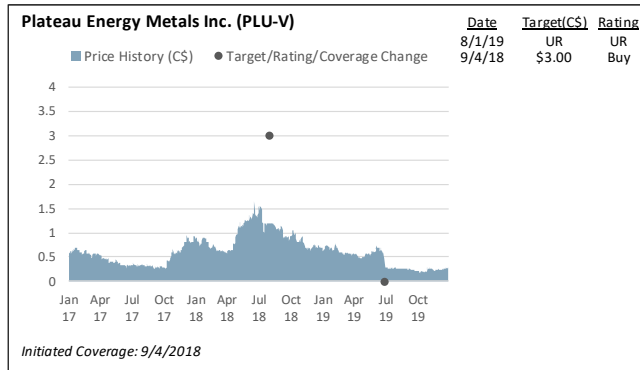
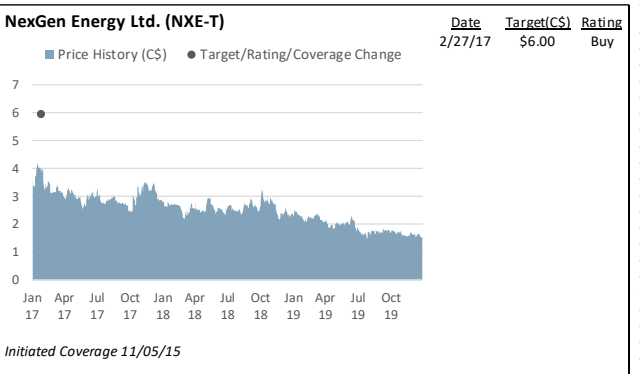
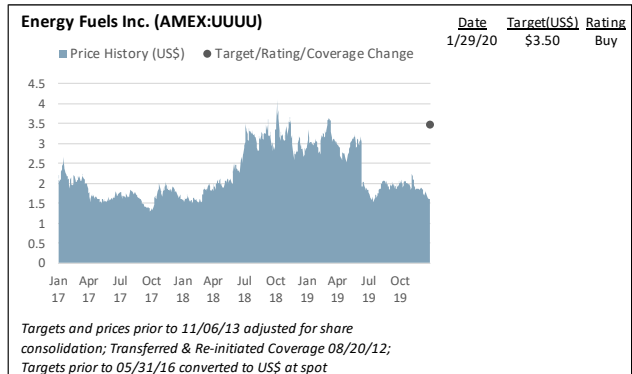
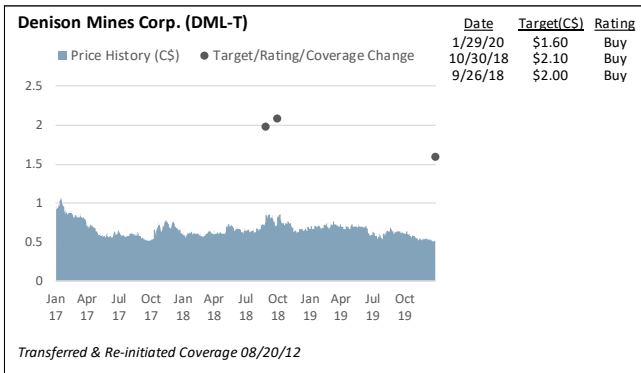
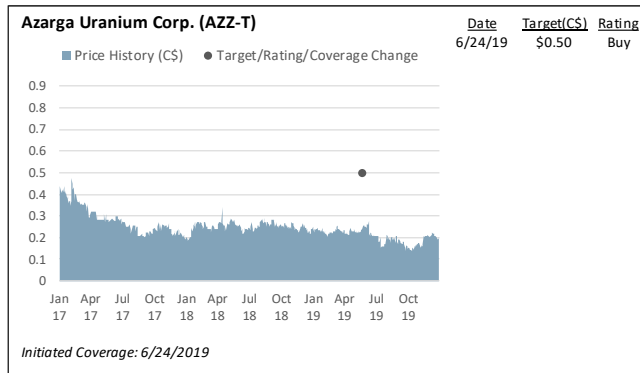
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Distribution of Ratings (as of January 29, 2020)

	%	#	IB Clients (TTM)
Buy	76.2%	80	96.7%
Hold	13.3%	14	0.0%
Sell	1.0%	1	0.0%
Tender	1.9%	2	0.0%
UR (Buy)	1.0%	1	0.0%
UR (Hold)	0.0%	0	0.0%
UR (Sell)	0.0%	0	0.0%
Dropped (TTM)	6.7%	7	3.3%



Price Chart, Rating and Target Price History (as of January 29, 2020)



B: Buy; H: Hold; S: Sell; T: Tender; UR: Under Review
 Source: Capital IQ and Haywood Securities

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