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Metals & Mining

27 November 2018

Yellow Cake plc

BUY

A resuscitated spot market

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THE TEAM



Michael Stoner joined the Berenberg Metals & Mining team in October 2017. He has more than seven years of mining experience in equity research. Michael previously worked at Peel Hunt, where he established a new mining team, with his coverage focused on the gold, gemstones, uranium, coal and royalty subsectors. Before that, Michael worked in the mining teams at Evolution Securities and Edison Investment Research. He holds a Geology MSc from the Royal School of Mines (Imperial College).



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Richard Hatch joined Berenberg's Metals & Mining team in May 2018. Richard has more than seven years' experience in equity research, and joined Berenberg from RBC Capital Markets, where he covered the global diversified, PGM, diamond, gold/silver and mineral sands sectors. Prior to this, Richard qualified as a chartered accountant with PKF (UK) LLP (now BDO), where he worked in both audit and advisory and management consultancy services. He holds a BSc in Accounting with Law from the University of East Anglia.



Sanam Nourbakhsh joined the Berenberg specialist sales desk in October 2018 covering the Metals & Mining sector. Prior to this she worked at BMO Capital Markets where she was a sector analyst. Earlier in her career she held various roles at both bulge-bracket and niche advisory firms across Europe and the Middle East. Sanam holds a BSc in Economics from the University of Bath, and an MSc in Metals and Energy Finance from the Royal School of Mines at Imperial College London.

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Please note that the use of this research report is subject to the conditions and restrictions set forth in the disclosures and the disclaimer at the end of this document.

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A resuscitated spot market

- The uranium spot price is showing real momentum and rising quicker than we expected. To some extent our forecasts were set at a level we thought realistic rather than being a stretch target. It is positive to see greater momentum in the uranium price, debunking the view that this may be a false dawn for the spot price. With our 2018 year-end commodity price forecast now lagging the spot price, we update our uranium price deck, which in turn increases our short-term price target for Yellow Cake to 273p. Our long-term target of 362p by FY 2022 remains unchanged.
- Uranium:** The resuscitation of the spot market is clear to see, yet pricing remains far from a sustainable level. The long-term contract market is yet to recover – into which the bulk of mine production is sold – and the spot price, despite a 23% run up this year, has potential to rise by at least another 71% to hit a long-term incentive pricing level of \$50/lb. At current levels, roughly two-thirds of the world's mines are uneconomic. Over the next two to three years as the mines come to the end of their long-term fixed price contracts (set at elevated historical price points), they will start to receive spot pricing that at the current levels will result in mine closure and a tightening of supply. The tighter supply will result in an increase in the spot price, and one would expect a rational market to show rising pricing ahead of potential mine closures to ensure sustained supply.
- Current/spot NAV:** The “live” spot NAV differs from the short- and long-term valuation scenarios we outline below, as it gives the best reflection of where we calculate the stock is currently trading. Uranium was at \$29.3/lb yesterday, which delivers a NAV of \$253m or 256p per share. Given yesterday's intraday price of 243p, Yellow Cake is therefore trading at a 5% discount to the spot NAV.
- Valuation and recommendation:** Given that the spot uranium price has already risen past our year-end forecast, we now upgrade our assumptions and increase our March 2019 (FY 2019 period end) forecast to \$31.25/lb (up 9% from \$28.75/lb). This results in an increase in our short-term valuation (FY 2019) and price target, which rises to 273p from 254p. The full potential of the business is best reflected by our long-term valuation scenario, which is based on the FY 2022 NAV at a \$50/lb uranium price (unchanged). This scenario generates a 422p valuation, which is discounted back to a present value of 362p. Yellow Cake's shares continue to trade at a discount to the NAV and we therefore think the current share price offers a compelling entry point into the rising uranium price.

27 November 2018

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Current price **Price target**
GBp243 **GBp273**

27/11/2018 London (Intraday – 12:00)

Market cap (GBPm) 185
Reuters YCA.L
Bloomberg YCA LN

Changes made in this note

Rating: Buy (no change)
Price target: GBp273 (254)

Estimates changes

| | 2019E | | 2020E | | 2021E | |
|--------|-------|-------|-------|-------|-------|------|
| | old | Δ % | old | Δ % | old | Δ % |
| Sales | 0 | - | 0 | - | 0 | - |
| EBITDA | 58 | 30.2 | 82 | -28.2 | 82 | -5.1 |
| EPS | -1.82 | -49.8 | -2.50 | -2.0 | -2.84 | -0.5 |

Source: Berenberg estimates

Share data

Shares outstanding (m) 76
Enterprise value (GBPm) 179
Daily trading volume 340,000



Source: Thomson Reuters Datastream

| Y/E 31/03, USDm | 2018 | 2019E | 2020E | 2021E | 2022E |
|---------------------------------|------|--------------|--------------|--------------|--------------|
| Revenue | - | 0 | 0 | 0 | 0 |
| EBITDA | - | 76 | 59 | 78 | 14 |
| EBITDA (adjusted) | - | -1 | -2 | -2 | -2 |
| EPS (adjusted) - c/share | - | -2.72 | -2.55 | -2.85 | -2.91 |
| DPS - c/share | - | 0.00 | 0.00 | 0.00 | 0.00 |
| Uranium purchases | - | -178 | 0 | 0 | -89 |
| Uranium sales | - | 0 | 0 | 0 | 94 |
| Uranium holding (lbs m) | - | 8.44 | 8.44 | 8.44 | 8.21 |
| Net debt | - | -9 | -7 | -5 | -7 |
| Uranium holding value | - | 264 | 325 | 405 | 411 |
| Cash and equivalents | - | 9 | 7 | 5 | 7 |
| NAV | - | 272 | 332 | 410 | 417 |
| NAV/share (GBp) | - | 276 | 336 | 415 | 422 |
| Premium/(discount) to NAV (%) | - | -12% | -28% | -41% | -42% |

Source: Company data, Berenberg

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BUY

27 November 2018

Current price **Price target**

GBp243 **GBp273**

27/11/2018 London (Intraday – 12:00)

Reuters YCA.L
Bloomberg YCA LN

Market cap (GBPm) 185
EV (GBPm) 179
Trading volume 340,000
Free float 90.0%

Non-institutional shareholders

Uranium Royalty Corp: 9.98%

Share performance

High 52 weeks GBp257
Low 52 weeks GBp198

Business description

Yellow Cake is a London-listed company, headquartered in Jersey. It offers pure exposure to the uranium spot price. This is achieved through its strategy to buy and hold physical uranium in storage in North America. It may also seek to add value through the acquisition of uranium royalties and streams.

Performance relative to

| | SXXP | MSCI Metals & Mining |
|-------|------|----------------------|
| 1mth | 3.2% | 6.5% |
| 3mth | 0.4% | 1.7% |
| 12mth | - | - |

Investment thesis

- Overview:** Yellow Cake is the only London-listed company that offers pure exposure to the uranium spot price. This is achieved through its strategy to buy and hold physical uranium in storage in North America. A return will be realised through the appreciation of the value of its holding in a rising uranium price environment. The business is differentiated from its peer through a materially lower cost base and an agreement to access supply from the world's biggest uranium producer, Kazatomprom.
- Valuation:** We value the business at 1x NAV (the forward value of the uranium holdings and cash position). Our 273p short-term (FY 2019) price target is based on an 8.44Mlbs uranium holding, \$9m of cash and a spot price of \$31.25/lb. This delivers a \$269m NAV, up by 35% on the IPO raise of \$201m. By the end of FY 2022, when the commodity re-rates to our long-term forecast of \$50/lb, we calculate the present value of the NAV as \$358m or 362p per share (a 79% return on the IPO raise).
- Recommendation:** We reiterate our Buy rating, noting the momentum in the uranium price and the strong returns available on a short-term basis (FY 2019) and in the mid-term (FY 2022).

Profit and loss summary

| USDm | 2017 | 2018 | 2019E | 2020E | 2021E |
|-------------------------|------|------|--------|-------|--------|
| Revenues | - | - | 0 | 0 | 0 |
| EBITDA | - | - | 76 | 59 | 78 |
| EBITA | - | - | 76 | 59 | 78 |
| EBIT | - | - | 76 | 59 | 78 |
| Associates contribution | - | - | - | - | - |
| Net interest | - | - | 0 | 0 | 0 |
| Tax | - | - | 0 | 0 | 0 |
| Minorities | - | - | - | - | - |
| Net income adj. | - | - | -1 | -2 | -2 |
| EPS reported | - | - | 148.93 | 77.78 | 102.42 |
| EPS adjusted | - | - | -2.72 | -2.55 | -2.85 |
| Year end shares | - | - | 76 | 76 | 76 |
| Average shares | - | - | 51 | 76 | 76 |
| DPS | - | - | 0.00 | 0.00 | 0.00 |

Cash flow summary

| USDm | 2017 | 2018 | 2019E | 2020E | 2021E |
|--------------------------|------|------|-------|-------|-------|
| Net income | - | - | 76 | 59 | 78 |
| Depreciation | - | - | 0 | 0 | 0 |
| Working capital changes | - | - | 0 | 0 | 0 |
| Other non-cash items | - | - | -82 | -61 | -80 |
| Operating cash flow | - | - | -6 | -2 | -2 |
| Capex | - | - | 0 | 0 | 0 |
| FCFE | - | - | -6 | -2 | -2 |
| Acquisitions, disposals | - | - | 0 | 0 | 0 |
| Other investment CF | - | - | -172 | 2 | 2 |
| Dividends paid | - | - | - | - | - |
| Buybacks, issuance | - | - | 201 | 0 | 0 |
| Change in net debt | - | - | -9 | 2 | 2 |
| Net debt (cash negative) | - | - | -9 | -7 | -5 |
| FCF per share | - | - | -0.08 | -0.03 | -0.03 |

Growth and margins

| | 2017 | 2018 | 2019E | 2020E | 2021E |
|-------------------|------|------|-------|--------|-------|
| Revenue growth | - | - | - | - | - |
| EBITDA growth | - | - | - | -22.3% | 31.8% |
| EBIT growth | - | - | - | -6.1% | 11.5% |
| EPS adj growth | - | - | - | - | - |
| FCF growth | - | - | - | -67.1% | 9.8% |
| EBITDA margin | - | - | - | - | - |
| EBIT margin | - | - | - | - | - |
| Net income margin | - | - | - | - | - |
| FCF margin | - | - | - | - | - |

Key ratios

| | 2017 | 2018 | 2019E | 2020E | 2021E |
|----------------------|------|------|---------|--------|---------|
| Net debt / equity | - | - | 0.0% | 0.0% | 0.0% |
| Net debt / EBITDA | - | - | -0.1 | -0.1 | -0.1 |
| Avg cost of debt | - | - | - | - | - |
| Tax rate | - | - | 0.0% | 0.0% | 0.0% |
| Interest cover | - | - | -1323.7 | -791.6 | -1446.3 |
| Payout ratio | - | - | - | - | - |
| ROCE | - | - | - | - | - |
| Capex / sales | - | - | - | - | - |
| Capex / depreciation | - | - | - | - | - |

Valuation metrics

| | 2017 | 2018 | 2019E | 2020E | 2021E |
|--------------------|------|------|-------|--------|--------|
| P / adjusted EPS | - | - | - | - | - |
| P / book value | - | - | 0.6 | 0.7 | 0.6 |
| FCF yield | - | - | -2.5% | -0.8% | -0.9% |
| Dividend yield | - | - | - | - | - |
| EV / sales | - | - | - | - | - |
| EV / EBITDA | - | - | - | - | - |
| EV / EBIT | - | - | - | - | - |
| EV / FCF | - | - | -38.9 | -118.9 | -109.7 |
| EV / cap. employed | - | - | 0.9 | 0.7 | 0.6 |

Key risks to our investment thesis

- Uranium price:** Lower pricing would result in a reduction in the NAV. That said, the pricing risk appears to be skewed very significantly to the upside. Crucially, this vehicle can survive low uranium pricing – largely due to its lack of operating leverage, a low cost base and the fact that there is no debt in the structure.
- Timing risk:** If the price rise were to take longer than expected to materialise, then one would have to consider funding risk (how long the structure can survive without issuing equity). Given the opacity of significant segments of the industry, particularly relating to inventory levels, there is a risk that the price recovery is delayed.

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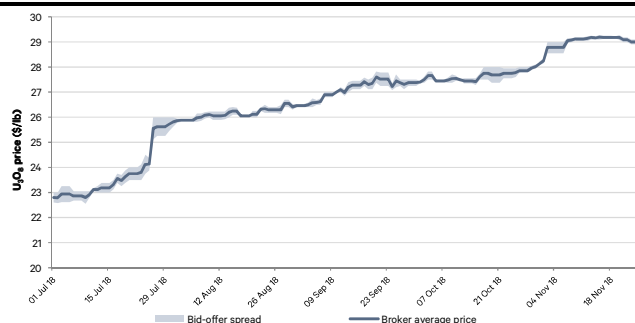
Yellow Cake plc – investment thesis in pictures

Chart 1: Uranium spot price (forecasts in light orange)



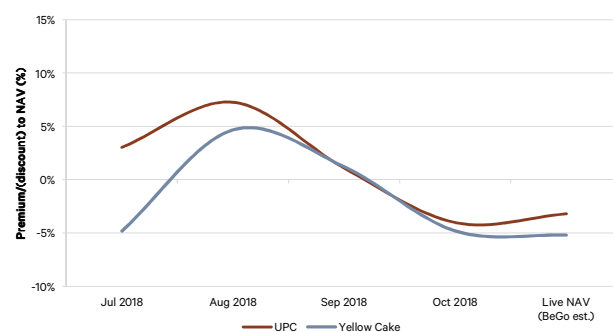
Source: Berenberg estimates

Chart 2: Recent spot price moves



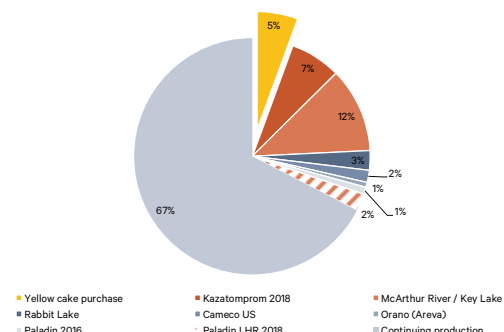
Source: Berenberg estimates

Chart 3: UPC & Yellow Cake – premium/discount to NAV



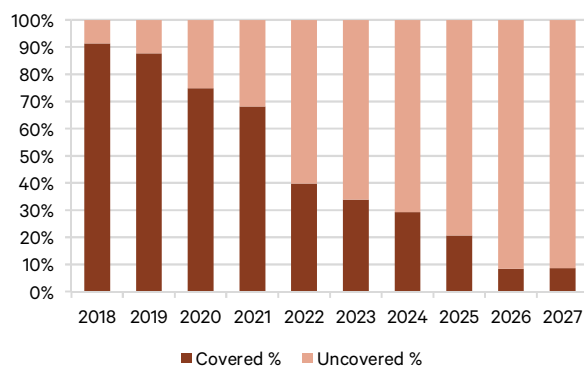
Source: Berenberg estimates

Chart 4: Production cuts as a percentage of 2017 production



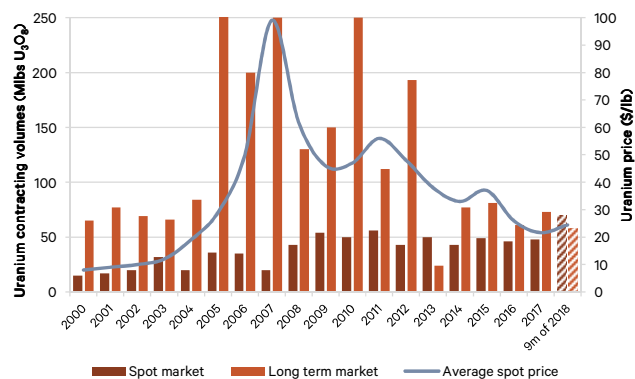
Source: Berenberg estimates

Chart 5: US utility demand coverage by contracts



Source: Berenberg estimates

Chart 6: Contracting volumes



Source: Berenberg estimates

Yellow Cake plc – investment thesis

What's new: The business remains unchanged – it remains the cleanest vehicle with which to gain exposure to the rising uranium price. Since Yellow Cake's IPO in July, the spot uranium price has risen 28% to \$29.3/lb. This is 39% above the blended purchase price of \$21.10/lb for Yellow Cake's uranium holding. More recently the uranium spot market has appeared to tighten and the price has gained momentum, rising 4% so far in November. We believe that this is due to the rising activity in the spot market with Cameco, traders and utilities looking to secure volumes. With Cameco, North America's largest uranium company, needing to acquire 10-15Mlbs in the spot market to deliver into its offtake contracts by the end of 2019, we believe that the spot market purchase support will remain ongoing for some time.

Two-minute summary: Yellow Cake remains unique in the London market as it is the only London-listed company that offers pure exposure to the uranium spot price. This is achieved through a buy and hold strategy, which sees it store physical uranium in North America. A return is being realised through the appreciation of the value of the holding, given the rising uranium price. The business remains differentiated from its peers through a materially lower cost base and a binding supply agreement with Kazatomprom, the world's biggest producer.

Recent news: interim results

On Monday, the group reported its first financial results for the period from IPO to the end of September. It has been a successful first five months of trading for the business, with the uranium price rising strongly since the IPO. The results were broadly in line with our expectations. Costs were as expected, but it is worth noting that they were elevated by IPO costs and the commission payable to 308 Services for the initial uranium purchase. Going forwards the cash burn is expected to be materially lower with the recurring costs in the period totalling only \$0.5m.

Financial performance: The group reported net profit after tax of \$44.2m, versus our \$47.9m forecast. The profit was generated by the non-cash gain on the value of the uranium holding of \$52.7m (we forecast \$53m), less costs and the \$3m derivative financial liability that has been introduced at this first set of results (related to the Kazatomprom repurchase option). Our net profit figure is broadly in line with today's reporting, once we back out the impact of the newly introduced derivative liability. Yellow Cake ended September with \$9.8m of cash, as announced in October.

Costs: In this first interim period for the group it incurred \$2.6m of costs relating to the IPO, and \$1.8m in purchase commission payable to 308 Services, the external adviser, for the uranium purchases after the IPO. The recurring costs totalled \$0.5m (\$0.3m of administration costs and \$0.2m of service fees payable to 308 Services).

September NAV: In this announcement the company repeats the NAV at the end of Q3, only this time adds the balance sheet value of the Kazatomprom purchase option as a derivative financial liability. This reduces the stated NAV by 3p to 239p (from the 242p that was announced 3 October).

October NAV: Since the end of September the uranium price has continued to rise, lifting the company's reported NAV to 249p at 31 October. We feel that our own live NAV is a better reflection of the company's spot valuation as the uranium price has continued to rise since the end of October.

Valuation

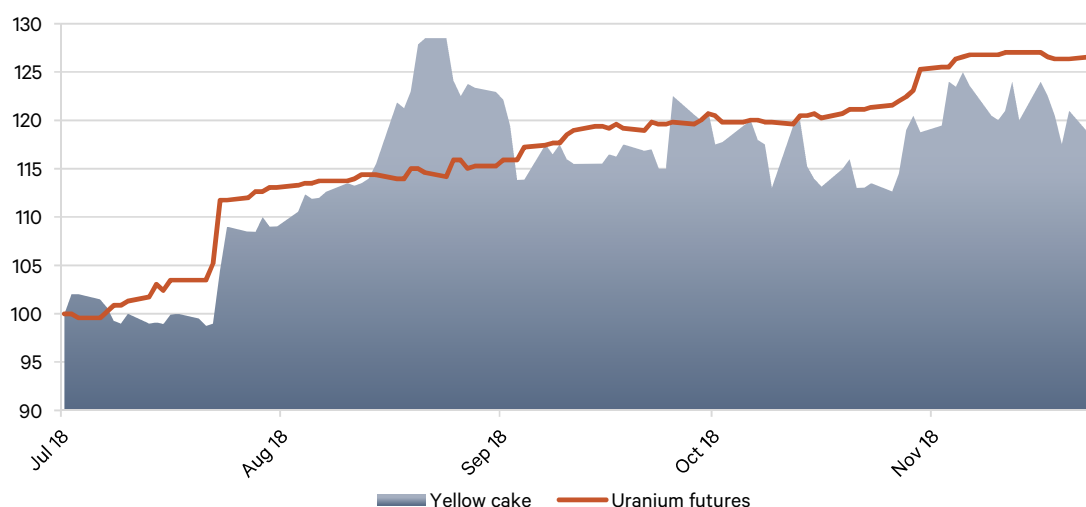
Having updated our short-term uranium price forecasts we increase our price target, which is based on the FY 2019 NAV, to coincide with the end of the company's first financial year. With our uranium price forecast at the end of March rising to \$31.25/lb from \$28.75/lb, our price target rises to 273p from 254p. Our longer-term valuation scenario remains unchanged at 422p, based on a \$50/lb uranium price. When this is discounted back to a present value it equates to a 362p valuation.

Key investment point one: Uranium rising ahead of expectations

- The uranium price has risen more quickly than we forecast at the time of the Yellow Cake IPO. Our short-term forecasts, from the time of the IPO, certainly appear conservative in the context of the 28% increase in the uranium price since then. The year-end uranium price shows potential to push through the \$30/lb hurdle, against our previous calendar-year-end forecast of \$26.25/lb.
- Relative to the price at which Yellow Cake purchased its uranium holding (\$21.10/lb), it has now risen 38%.
- Since the start of 2018 the uranium price has, on average, risen \$0.02 each day, with this trend accelerating in the past month with the spot price rising \$0.05 per day. There have been very few steps in the price, with the rises materialising as small, consistent daily increases. We believe that this demonstrates ongoing daily calls on the spot market, potentially indicative of Cameco being active in the market and making purchases to deliver into its offtake contracts.

Yellow Cake versus uranium

Figure 1: Yellow Cake share price versus uranium (normalised to 100)



Source: Bloomberg

Yellow Cake has slightly underperformed uranium since its IPO, with the shares rising 21.5% versus ~28% for the uranium price. We suspect that this is triggered by a small amount of selling pressure with some of the IPO participants taking profit while the uranium price rises. In the past few weeks, the share price has turned down a little, while the uranium price has stepped up significantly. This has opened most of the gap to the uranium price performance.

The spot price momentum kicks on

Since the start of July, the uranium price has risen almost every day, with no major down-days, as seen earlier in the year. The spot price in the past month has risen by \$0.05 each day, on average. This represents an acceleration of the price improvement, with the price previously averaging a \$0.02 daily increase. This acceleration of the spot price represents an increase in the spot market activity, with Cameco's purchases being made alongside an increasingly active end-user and trader group that is also looking to secure volumes in the spot market.

Figure 2: Uranium price rises through \$29.00/lb



Source: Berenberg estimates, UxC

We believe that the main drivers for the increase in the spot price are: 1) the tightening of the market resulting from the recent production cuts; 2) a reduction in producer inventory, which has lowered the utility companies' confidence in being able to source material in the spot market; and 3) an increase in demand in the spot market from financial players, including Yellow Cake.

Long-term contract market

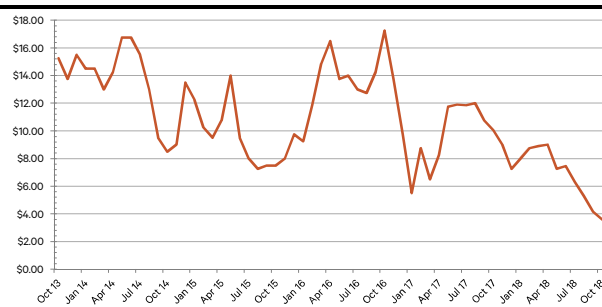
The long-term contract market appears relatively unresponsive to the recent increases in the spot price, pointing to relative inactivity in the contract market. We have noticed the price spread between the spot price and contract market being strongly eroded since the summer. The industry rule of thumb is that the contract price trends between a \$10-15/lb premium to the spot price. As the spot price has risen, this premium has been eroded to just \$3.60/lb, the lowest price spread seen in the past five years (see Figure 4).

Figure 3: Spot price and long-term contract price



Source: Berenberg estimates, UxC

Figure 4: Long-term contract – spot spread (past five years)



Source: Berenberg estimates, UxC

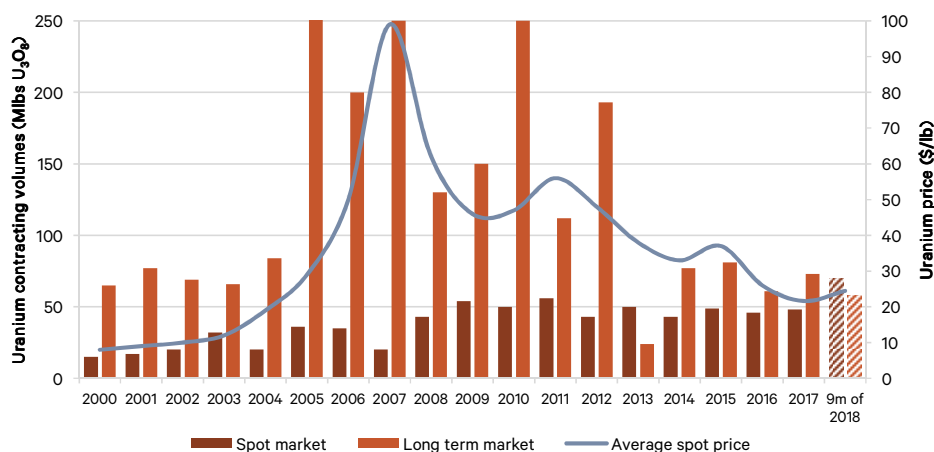
We believe the erosion of the price spread between the contract and spot market results from inactivity in the contract market, which can be explained by the following factors.

- Inactivity of US utilities as a result of their uncertainty about the outcome of the Section 232 petition, which may result in the US government imposing import tariffs or quotas in the future. This would obviously affect the geographical mix of supply to US utilities, leading them to hold off from fixing new contracts at this point. US utilities are a major player in the long-term contract market and since the announcement of Section 232 earlier this year are believed to be waiting on the sidelines for a resolution of the petition, before entering the market in size.

- Utilities are also currently well supplied, given healthy coverage of their demand coming from volumes being supplied under existing offtake contracts and reasonably full strategic inventories.
- Given that uranium only makes up 5-6% of the input costs for nuclear power generation, we believe that the utilities are not at all price sensitive and therefore are willing to wait until the expiry of their offtake contracts compels them to fix new contracts, rather than try to lock in lower pricing today.
- Miners are not willing to tie future production into deals based on the current long-term contract price, given that this would render roughly half of the world's mine supply uneconomic with the miners believing that the uranium price will continue to rise from here.

Ytd there has only been 58Mlbs (one-third reactor consumption) committed to long-term offtake contracts, which is materially lower than the 130-250Mlbs committed to contracts each year from 2005-10, as demonstrated in the chart below. While spot market volumes have picked up meaningfully since 2017 (to a record level), the long-term market volumes are unchanged. This is clearly demonstrated in the chart below.

Figure 5: Long-term contract and spot market volumes

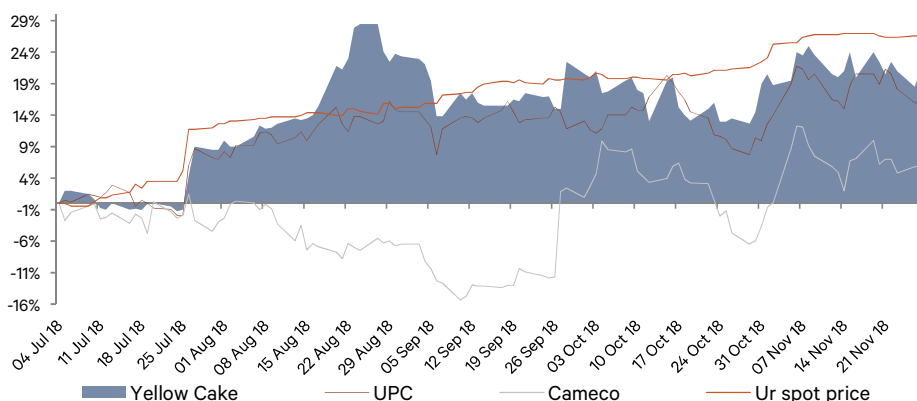


Source: Company reports

Physical holdings continue to outperform

Since Yellow Cake's IPO, our thesis that the physical holding structures will outperform the uranium miners appears to have played out. Uranium Participation Corp (UPC) and Yellow Cake's performances have been very similar, with both far stronger than the performance of Cameco. We note that Yellow Cake's performance generally slightly lags the uranium price, with its share price catching up with any spot price increase over the following days.

Figure 6: Uranium spot price versus Yellow Cake, UPC and Cameco since Yellow Cake's IPO



Source: Bloomberg

Key investment point two: Cheap access

- Yellow Cake is now trading at a 5% discount to NAV, given the greater momentum in the uranium spot price than we have seen in the company's share price in recent weeks.
- It therefore offers cheap access to uranium exposure, ahead of a strong short- and long-term outlook for the commodity price. One can therefore buy uranium exposure at a discount to its current value and also benefit from the rising pricing environment.

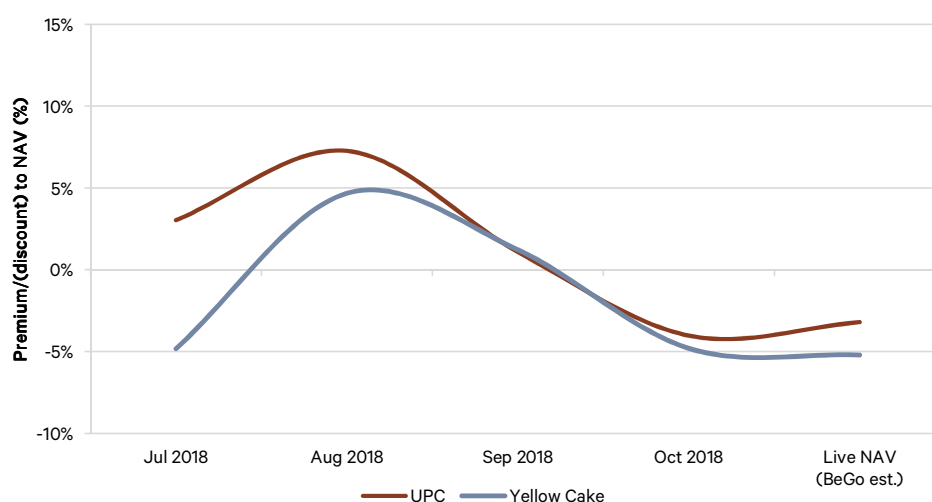
Live NAV at spot

As outlined in more detail in the valuation discussion on page 15, we calculate a live NAV of 256p per share. With the share price currently trading at 243p, Yellow Cake is trading at a 5% discount to the live NAV. This is despite a 21.5% increase in the shares since IPO as a result of the increase in the uranium price.

How Yellow Cake trades relative to UPC

In recent months the UPC premium to NAV has started to be eroded, with UPC and Yellow Cake at the most recent month end (October 2018) trading broadly in line with each other. It feels obvious that the addition of Yellow Cake to the market would erode some of the UPC premium. Since the start of the year UPC has consistently traded at premium to NAV. We believe that this is due to the scarcity factor of it previously being the only physical uranium holding strategy on public markets, at a time when the uranium price was rising. The uranium price continues to rise, but the number of vehicles for investment into uranium has increased, making it unlikely that UPC can continue to hold a 5-10% premium to NAV. We also believe that the acceleration of the increase in the uranium price in recent weeks has to some extent left both UPC and Yellow Cake behind, driving both stocks to a discount to NAV. Over time we would expect this gap to close.

Figure 7: Yellow Cake versus UPC – premium/(discount) to NAV since the Yellow Cake IPO



Source: Company reports, Berenberg estimates, Bloomberg

Key investment point three: Growth of the uranium holding

- **Right to buy:** Yellow Cake has the right to buy \$100m of uranium each calendar year from Kazatomprom, the world's biggest uranium miner.
- **Timing of a purchase:** Given the structure of the supply agreement with Kazatomprom being based on calendar years, Yellow Cake will be able to make its next purchase from 1 January 2019. Aside from the terms of the contract, the other factors that are most likely to influence the timing of a purchase decision are as follows.
 - **Uranium price:** The outlook for the uranium price is key to the decision to execute the follow-on purchases. Given the relatively early stage in the uranium price recovery, we would expect further purchases to remain attractive/accretive for the coming years. Nearer the back end of the nine-year supply agreement the purchases may become harder to justify.
 - **NAV:** Purchases must be accretive, which is easiest to achieve when the company is trading at a premium to NAV, even in a static pricing environment. In a rising price environment (as we currently forecast) it becomes easier to justify a purchase when the company trades at or above NAV. However, in a rapidly rising price environment it can still be accretive, on a one-year view, to issue equity to buy uranium when shares are trading at a small discount to NAV.
 - **Financial backing:** The company's \$9m cash position is held to cover the overheads until the end of 2024/or allow the company to carry out small share buy-backs when the shares trade at a material discount to NAV. The company does not carry a cash holding that would allow it to make material uranium purchases. It will therefore have to issue equity in order to make a spot market purchase, or to exercise its option to acquire \$100m under the Kazatomprom supply agreement. Investors can therefore take comfort that the company will only be able to finance a purchase when the market views it as an opportune time.
- **Berenberg view:** We believe that the company should look to make its next purchase earlier, rather than later, in 2019. This is due to our expectation that as the uranium price is set to rise through 2019, it would be advantageous to access volumes at the lowest entry point in the year, which we expect to be during the first quarter.

Timing the next purchase

Given that Yellow Cake can make the next purchase from 1 January 2019, we are nearing the potential window. As described above, the company has the right to buy \$100m of uranium at the prevailing spot price from 1 January 2019.

Single purchase or sum-of-the-parts

We have been asked by investors about the ability to break up the purchases through the year or even upsize the purchase. That it not to say that Yellow Cake cannot buy more or less than that amount, simply that Kazatomprom has the obligation to deliver a total of \$100m of uranium over the year

Terms of the Kazatomprom supply agreement

Supply agreement

Yellow Cake has a direct supply agreement in place with Kazatomprom, which gave it the right to buy \$170m of uranium (yellowcake – U_3O_8) at the time of the IPO, along with the right to purchase an additional \$100m of uranium each year for the following nine calendar years. The first follow-on purchase can be made in 2019. It is our understanding that if the \$100m purchase option is not exercised, it will lapse and cannot be rolled into the following year. However, the subsequent annual options to acquire \$100m each year will remain unaffected.

Pricing mechanism

The price at which Yellow Cake will purchase the uranium is structured to ensure that the price is not disturbed by market knowledge of the upcoming purchase, to avoid Yellow Cake bidding the price up on itself as is the case with UPC's purchases. Yellow Cake will notify Kazatomprom of its intention to make a purchase, and at that point the purchase price will be fixed and the company will have two weeks to raise the funds and close the purchase at the agreed price. The price will be set at the average of the spot price, for a seven-day period, from the two primary data sources, TradeTech and UxC.

The transaction – how it actually works

When the company has decided that it would like to make a purchase it informs Kazatomprom and the two companies lock in a purchase price based on the average of the spot price from the two uranium industry consultants, UxC and TradeTech. With this fixed price agreed, Yellow Cake then goes to its shareholders and the wider market with its plan to raise money to purchase uranium. Once the raise is completed the company then makes the purchase. If the raise is unsuccessful, the two-week timeframe to make the purchase expires and the company's purchase option remains unused and therefore open for further attempts later in the year. The \$100m can be split into a series of purchases through the year, or can be a single transaction. There is also nothing to stop Yellow Cake from requesting a purchase larger than the \$100m outlined in the supply agreement, but it would require approval from Kazatomprom, which is not obliged to deliver any more than \$100m of material.

Berenberg uranium price deck

In 2018, the uranium price has moved firmly off its lowest point in approximately 12 years, with the consistent pricing uplift in H2 2018 making us confident that this recovery is not a false dawn, as seen in previous years. That said, there remains some way for pricing to recover before it reaches sustainable levels. Yellow Cake can continue to make purchases, confident that it can deliver a long-term return on the additional volumes. Our forecasts continue to point to a rising pricing environment. It is worth noting that we forecast on an incentive pricing basis, rather than a peak pricing basis, which gives a long-term pricing expectation of \$50/lb for a market that has historically seen pricing spike as high as \$70/lb in 2011 and a \$130/lb record in 2007.

Figure 8: U₃O₈ price and Berenberg quarterly average forecasts (forecasts in light orange)



Source: Berenberg estimates, Datastream

Pricing has moved more strongly in 2018 than we had previously expected, which gives us heightened confidence in the short- to mid-term pricing outlook as the industry continues to benefit from ongoing production cuts, while nearing a time when the long-term contracting cycle is likely to come into play in late 2019 through 2021.

With the current spot price now higher than our 2018 year-end price forecast, we have updated our short-term assumptions, increasing the speed of the ramp-up of the uranium price towards our \$50/lb long-term forecast, which remains unchanged. Our updated price forecasts can be found below.

Figure 9: Berenberg quarterly average uranium forecasts

| (USD/lb) | Q4 18 | Q1 19 | Q2 19 | Q3 19 | Q4 19 |
|-------------------|----------|----------|----------|----------|----------|
| Previous forecast | USD25.00 | USD27.50 | USD30.00 | USD30.00 | USD32.50 |
| Updated forecasts | USD28.25 | USD30.25 | USD32.25 | USD34.00 | USD35.50 |

Source: Berenberg estimates

Figure 10: Berenberg quarterly period-end uranium forecasts

| (USD/lb) | Q4 18 | Q1 19 | Q2 19 | Q3 19 | Q4 19 |
|-------------------|----------|----------|----------|----------|----------|
| Previous forecast | USD26.25 | USD28.75 | USD30.00 | USD31.25 | USD35.00 |
| Updated forecasts | USD29.25 | USD31.25 | USD33.13 | USD34.75 | USD36.50 |

Source: Berenberg estimates

Figure 11: Berenberg annual average uranium forecasts – calendar year

| (USD/lb) | 2018 | 2019 | 2020 | Long run |
|-------------------|----------|----------|----------|----------|
| Previous forecast | USD23.61 | USD30.00 | USD40.00 | USD50.00 |
| Updated forecasts | USD24.60 | USD33.00 | USD40.60 | USD50.00 |

Source: Berenberg estimates

Valuation and sensitivity analysis

- **Upgrading valuation scenarios:** With the uranium price rising quicker than we previously forecast, we have increased our short-term uranium price expectations, lifting our headline valuation scenario and price target. Our longer-term pricing assumptions remain unchanged at \$50/lb, leaving our long-term valuation unchanged.
- **Live NAV:** The company's uranium holding (by volume) is unchanged since the last update at 8.44Mlbs. At the current spot price of \$29.3/lb this is worth \$247m. When added to our estimate for the current cash position (\$9.4m) and the working capital position (-\$0.2m at 30 September), we calculate a live/spot NAV of \$256m, or 259p per share. Then factoring in the newly introduced derivative financial liability of \$3m, as reported in the recent interim results, we reduce our NAV by 3p per share to 256p. Yellow Cake shares therefore trade at a 5% discount to NAV, offering cheap access to the rising uranium price.
- **Headline valuation scenario:** Our price target is based on our short-term valuation scenario, based on forecasts at the end of FY 2019 (March 2019). Having increased our short-term uranium forecasts we now base this scenario on a uranium price of \$31.25/lb, up from \$28.75/lb previously. This delivers a NAV of \$273m or 276p per share, up from 254p. This equates to a price target of 273p per share once we factor in the \$3m derivative financial liability.
- **Our long-term valuation scenario** is based on the present value of the NAV at the end of FY 2022, when we expect the spot price to have risen to \$50/lb. At that time, we forecast a NAV of \$417m, or 422p per share. When this is discounted back to the present value (5% discount rate), we calculate a \$357m NAV, or 362p per share. This scenario assumes that Kazatomprom exercises its uranium repurchase option, so we therefore exclude the derivative liability that we expect to have fallen away by this point.

NAV scenarios

Below, we detail three valuation scenarios that demonstrate the current, short- and long-term valuations and the potential for NAV uplift, as outlined above. The value creation is driven by a rising uranium price forecast, which significantly outweighs the leakage of cash to the corporate overheads and advisory fees over time.

Figure 12: Yellow Cake valuation scenarios

| Yellow Cake NAV | | | |
|---|------------------------|-----------------------|--------------------|
| | Current NAV at spot | Short-term target | Long-term scenario |
| (US\$'000) | Spot price (\$29.3/lb) | FY19 NAV (\$31.25/lb) | FY22 NAV (\$50/lb) |
| Uranium holdings | | | |
| U ₃ O ₈ volumes in storage (Mlbs) | 8.44 | 8.44 | 8.21 |
| U ₃ O ₈ value in storage (US\$'000) | 247,164 | 263,793 | 410,723 |
| Adjustments: | | | |
| Net cash/(debt) (US\$'000) | 9,368 | 8,908 | 6,636 |
| Working capital (US\$'000) | (216) | (208) | (256) |
| NAV | 256,315 | 272,493 | 417,103 |
| NAV/share (GBP) | 2.59 | 2.76 | 4.22 |
| Derivative financial liability (US\$'000) | (3,016) | (3,016) | 0.00 |
| NAV/share post Deriv. Liability (GBP) | 2.56 | 2.73 | 4.22 |
| Present value of NAV (5% discount rate) | | | 357,614 |
| Present value NAV/share (GBP) | | | 3.62 |
| Implied premium/(discount) | -5% | -11% | -33% |
| Uplift on IPO raise (\$201m) | 27% | 35% | 79% |
| Forex assumption (USD/GBP) | 1.30 | | |

Source: Berenberg estimates

For all of our valuation scenarios, we calculate the NAV as the sum of the value of the uranium holding, plus the cash position, which is then adjusted for the nominal working capital position. We now also include the derivative financial liability of \$3m that was reported in the interims as the value of the Kazatomprom repurchase option. For scenarios dated beyond the end of this current financial year (FY 2019), we then discount the NAV back to a present value using a 5% discount rate. At any point in time, the uranium holding value is calculated using the uranium price that we expect to be prevailing at that time.

Changes since publishing our initiation (August 2018)

- **Production cuts update:** No new news and conviction in mine closures sustaining through 2019 remains.
- **Cost-curve creep:** Cost inflation is lifting the hurdle for sustainable pricing, with higher costs realised in 2018 than in 2017.
- **Competing power technologies:** The sustainability of hydro-power has perhaps been overestimated.
- **China update:** The roll out of the new reactor fleet is starting to accelerate after a slow 2016-17. Seven new reactors became operable since Yellow Cake's IPO in July.

Production cuts update

In our Yellow Cake [initiation](#) from August 2018, we noted that miners have cut approximately 23% of production capacity in 2018 in order to rebalance the market. Since then, there have no further production cutbacks announced. Below we summarise the projects placed on care and maintenance since 2011.

Figure 14: Mines placed on care and maintenance since 2011

| Mine | Operator | Country | Date | Max. annual production (Mlbs U3O8) | % of 2017 production |
|----------------------|----------------|--------------|------|------------------------------------|----------------------|
| Alta Mesa | Energy Fuels | US | 2013 | 1.1 | 0.7% |
| Honeymoon | Boss | Australia | 2013 | 0.3 | 0.2% |
| Willow Creek | Uranium One | US | 2013 | 0.9 | 0.6% |
| Kayelekera | Paladin Energy | Malawi | 2014 | 2.9 | 1.9% |
| Azelik | CNNC | Niger | 2015 | 0.5 | 0.3% |
| Palangana | UEC | US | 2015 | 0.3 | 0.2% |
| Cooke | Sibanye Gold | South Africa | 2016 | 0.2 | 0.1% |
| Rabbit Lake | Cameco | Canada | 2016 | 4.2 | 2.7% |
| Crow Butte | Cameco | US | 2017 | 0.8 | 0.5% |
| Smith Ranch-Highland | Cameco | US | 2017 | 2.1 | 1.4% |
| McArthur River | Cameco | Canada | 2018 | 20.1 | 13.0% |
| Nichols Ranch | Energy Fuels | US | 2018 | 0.3 | 0.2% |
| Somair | Orano | Nigeria | 2018 | 1.1 | 0.7% |
| Langer Heinrich | Paladin Energy | Namibia | 2018 | 3.4 | 3.0% |
| | | | | 38.2 | 25.5% |

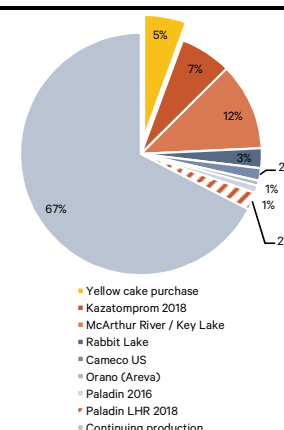
Source: Company reports, Berenberg estimates

Since 2011, 14 mines have been placed on care and maintenance (C&M), accounting for cumulative annual production of 38Mlbs. The latest production cuts and project deferrals are projected to reduce global uranium supply to 136Mlbs in 2018 (versus forecast demand of 173Mlbs), altogether rebalancing supply and demand. When you also consider the Yellow Cake purchase, the smaller purchases from UPC and Kazatomprom's 20% production cut, one can see quite how the spot market has tightened so significantly in 2018. Despite the run up in the spot price, we believe that these cuts are likely to sustain and there is potential for further cuts as many of the world's mines are still out of the money at the current spot price, and only sustain production because they are continuing to benefit from higher prices in long-term offtake contracts. These are set to roll-off over the next three years, putting further pressure on mine supply.

Cost-curve economics

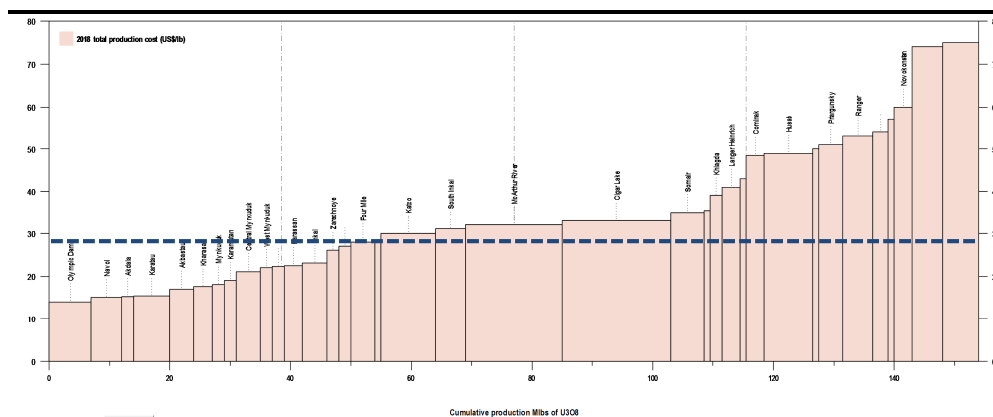
The production cuts do not come as a surprise as the majority of producing mines were loss-making at the start of the year (~75%). As the spot price has risen 23% this year, the margin pressure on the miners has been slightly relieved, but meaningful portions of the cost curve remain cash negative. Below we outline cost curves for the top uranium producers and the projects.

Figure 13: Production cuts



Source: Company report, Berenberg estimates

Figure 15: Production cost curve for 2018E (total production costs)



Source: Company reports, L2 capital partners, Berenberg estimates

Based on our analysis above, it is evident that almost two-thirds of the global cost curve in 2018 is still loss-making at current spot prices of \$29.3/lb. We believe that the roll-off of long-term contracts will force a number of mining companies to reassess the economic viability of their mines. This may result in a number of mine closures over the coming years if those mines transition out of the contracts and into the spot market, where the current price would render almost two-thirds of mine supply uneconomic, as demonstrated above. The supply deficit that we expect to emerge over the next few years could be accelerated quicker if further mines close at the end of the higher-priced long-term contracts. In our view, this is a key feature for a material increase in the uranium price through 2020-24, as utility companies rush to maintain security of supply on the back of continued mine closures.

US investigation into imports – Section 232 update

There has been no decision as of yet from the US Department of Commerce (DoC) on its investigation into the effects of uranium imports on US national security. The investigation was launched in July 2018 after uranium mining companies Energy Fuels and Ur-Energy filed a petition under Section 232 requesting the DoC look into uranium imports. Instead, there have been several opposing comments from industry leaders, most notably the following.

- **Cameco (September 2018):** Management stated that it was unsupportive of the petition, highlighting it was “unrealistic” in its estimate of feasible US uranium production and it would be difficult to implement. However, if implemented, Cameco insisted that the quota on uranium imports should be applied solely to imports from state-owned enterprises from the countries named in the petition. The US is Cameco’s biggest customer, by country, with about 30% of its total 2017 sales volume going to US utilities.
- **Ad Hoc Utilities Group (September 2018):** This organisation, which represents US nuclear power generators, also urged the DoC to avoid placing tariffs or quotas on uranium imports, with the group highlighting that implementing the quota will put 100,000 domestic jobs at risk

In our view, the economics of protecting the small domestic uranium mining industry through this tariff is illogical as it is detrimental to the US utilities. We think there is little risk of this having a negative impact on the spot price given the lack of scale in the US uranium mining industry. Going forward, the DoC has up to 270 days from the July launch date to conduct its investigation; news of its decision should therefore emerge from April 2019.

China update

Much of the growth case for uranium demand is predicated on the roll-out of nuclear power capacity in China. We outline below the progress made in the reactor fleet roll-out since the IPO of Yellow Cake in July 2018. It is clear that the nuclear power reactor fleet in China is now starting to expand after several construction and commissioning delays were experienced in 2017. Since the summer, seven reactors have become operable, of which two have connected to the grid and five have commenced commercial operation (Sanmen 1 & 2, Haiyang 1 & 2 and Yangjiang 5).

Figure 16: Chinese reactor fleet grows 18% since the Yellow cake IPO

| | Reactors operable | | Under construction | | Planned | | Proposed | |
|------------------|-------------------|--------|--------------------|--------|---------|--------|----------|---------|
| | No. | MW | No. | MW | No. | MW | No. | MW |
| China (Jul 2018) | 38 | 34,647 | 20 | 21,546 | 39 | 46,100 | 143 | 164,000 |
| China (Nov 18) | 45 | 42,976 | 13 | 12,841 | 43 | 50,900 | 136 | 154,000 |
| Diff. | 18% | 24% | (35%) | (40%) | 10% | 10% | (5%) | (6%) |

Source: WNA

Looking beyond 2018, China has planned to connect another five reactors to the grid in 2019, with five more in 2020. With the roll-out of the Chinese nuclear reactor fleet looking like it is firmly back on track, we believe the investment case for uranium demand growth is compelling.

It is also interesting to note that China is looking to better integrate itself into the global uranium industry through partnerships with the leading global players, rather than continuing to operate as an autonomous player. As an example of this, in October 2018, a senior executive from China National Nuclear Corp (CNNC) announced the company is looking to invest in overseas uranium mines to secure supply for an expected ramp-up in the country's power generation. This, combined with Ni Tao, the deputy manager of China National Uranium Co Ltd, indicating that China's "vision is to be the world's leading uranium company", confirms that the country is serious about its commitment to the nuclear fleet roll-out.

Alternative technologies

Recent MIT study points to the importance of nuclear power

According to a MIT study from September 2018, achieving a low-carbon emission future at a reasonable cost and minimal social impact requires a mix of power sources, with nuclear power set to be a major component. The study, titled *The Future of Nuclear Energy in a Carbon-Constrained World*, suggests that trying to produce a low-carbon economy without nuclear reactors would cost 2-4x as much as one with nuclear. The primary obstacle to a large-scale reactor build programme is cost. To overcome this, the study suggests the nuclear industry moves towards standardised designs and components. Furthermore, governments should provide financial incentives similar to those given to wind and solar. It continues to outline that the key disadvantages of wind and solar power are lack of reliability, large geographical footprint, negative environmental impacts and a reliance on fossil fuel plants to maintain reliable electrical power services.

Hydropower less sustainable than first thought

A team of geographers, social scientists, hydrologists and engineers from Michigan State University have published a paper examining the benefits of hydropower, which they report to be overestimated, as well as the underestimated costs associated with new hydropower installations. While the authors acknowledge that hydropower can make a substantial contribution to sustainable energy, the true social, environmental and cultural costs, as well as the eventual cost of removing the dam, must be considered at the outset. The authors further highlight the importance of incorporating climate change considerations into decisions on whether or not to build a dam. It concludes that the hydropower industry needs to not only focus on energy production, but also on the negative social and environmental impacts caused by dams, with current practices being viewed as unsustainable by the group. We believe this places further importance on the use of nuclear power in the energy mix when considering long-term sustainability.

Cameco: spot market purchases

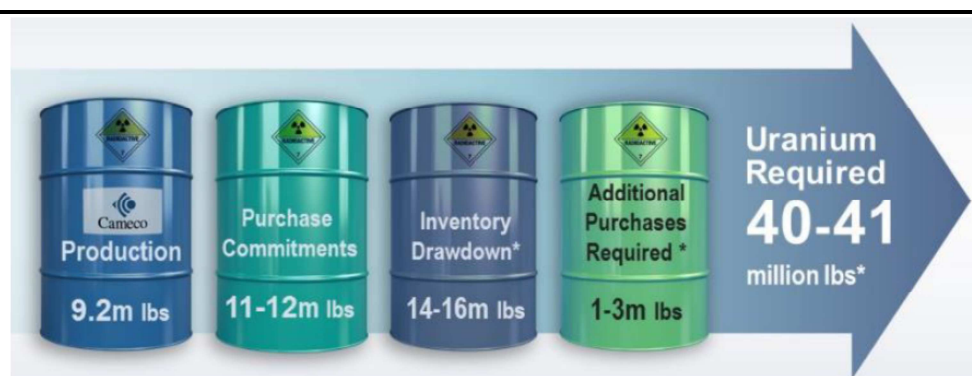
In the past 12 months, Cameco has delivered the biggest catalysts for the uranium price.

- In Q4 2017, it announced the temporary closure of the McArthur River mine, which is the world's biggest uranium mine.
- In Q1/2 2018, the closure was made indefinite, with the 10-month temporary closure shifting to a price-sensitive decision extended closure, which resulted in additional staff being laid off.
- In addition to the production cuts above, the group has also been active in the spot market, purchasing volumes to deliver into its long-term offtake contracts.
- It is these spot market purchases that we believe are currently driving the continued momentum in the uranium price. It is a bold statement for a company to close the largest mine in the world in preference for purchasing production from other companies to deliver into its offtake contracts.

Spot purchases: important dynamic for ongoing pricing pressure

It appears that in Q3 2018, Cameco made 2.9Mlbs of spot market purchases for physical delivery in Q4. Since the Q3 period end, we suspect that the ongoing purchases total another few hundred thousand pounds. As demonstrated in the figure below, this leaves 1-3Mlbs of spot market purchases to still be made in Q4 2018.

Figure 17: 2018 production and delivery commitments



Source: Company reports

Note: *Based on 2018 delivery commitments of 35-36Mlbs; 2019 delivery commitments of 27-29Mlbs; takes into account 2.9Mlbs secured for delivery in Q4; includes Orano loan of up to 5.4Mlbs; assumes 4.5 months forward sales in inventory; does not include intersegment committed purchases of 3-4Mlbs.

The purchasing impact in 2018 is not as significant as will be seen in 2019. This is largely as a result of the company drawing down its inventory to meet its 2018 delivery commitments. This also has the effect of normalising the company's inventory to the targeted level in a single year. In total, 14-16Mlbs of inventory will be sold in 2018, leaving the company with little excess inventory that can be drawn in 2019.

Figure 18: 2019 production and delivery commitments



Source: Company reports

Note: * Based on 2019 delivery commitments 27-29Mlbs; takes into account spot purchases secured for delivery in 2019; dependent on 2020 delivery commitments; assumes 4.5 months of forward sales in inventory

As shown in Figure 18 above, with no additional inventory draw-down capacity in 2019, the company will be forced to enter into the spot market to make additional purchases. Cameco's current guidance suggests that 10-12Mlbs of uranium will need to be purchased to fill the gap between its annual production guidance of 9Mlbs, 5-6Mlbs of existing purchase commitments and 27-29Mlbs of delivery commitments. Interestingly, the delivery commitment has grown by 2Mlbs in the last quarter, showing that the company is still actively pursuing new supply agreements where the pricing terms are attractive.

2019 will show a very different dynamic to 2018, with all of its commitments needing to be filled by production and purchases. It is therefore already entering into spot market transactions for deliveries dated in 2019. The management team commented on the Q3 results call that it is locking in carry trades (given the low interest rates) which will see material delivered in the 2025-2028 period. Given that this doesn't lock up cash and de-risks the ability to fill some of Cameco's very long dated delivery commitments we view this as a prudent approach.

Cameco purchase requirements continue

At the time of our [initiation](#) note in August, we were expecting Cameco to step into the market to purchase approximately 5-7Mlbs in 2018 and 9-11Mlbs of uranium in the spot market in 2019. The updated guidance shows 4-6Mlbs of purchases in 2018 and 10-12Mlbs in 2019. With the total quantum broadly unchanged, we view it as a positive that the spot price has reacted so strongly, while some of the purchase volumes we were anticipating being made in 2018 have been deferred into 2019.

Inventory now normalised

At the start of the year Cameco held 27Mlbs of inventory, which is a hugely elevated position of approximately eight months of committed sales (against a target of 4.5 months). This has now been normalised, with only 9.5Mlbs inventory being held at the end of Q3, down 9.8Mlbs in the quarter. Going forward the company targets an inventory position the equivalent of 4.5 months of committed sales. Through 2019 one would therefore expect the company to target 10.5Mlbs of inventory, given the 27-29Mlbs of delivery commitments. As the delivery book grows one would expect the inventory target to also increase.

Drawing information out of RFPs

Cameco is using three mechanisms to secure physical volumes: it is buying on market (spot), off market and through RFPs (request for proposals). The RFP process is particularly powerful as it delivers the group a lot of intelligence on the market, and by going out to all market participants – including miners, traders, utilities and other supply-chain participants – Cameco can learn the following:

- how much material is available for sale;
- at what price there are willing sellers; and
- who holds the loose material.

Through the RFP process earlier in the year, Cameco has been able to uncover some desperate sellers that were willing to move material at a discount. This opportunity has now completely dried up, in line with the tighter spot market. In the most recent RFP for 500,000lbs, the company was generally offered material at a premium.

It is also interesting to note who has not been actively offering material into this RFP process. On the Q3 results call, the management team commented that it is not seeing material become available from the utilities. Indicating that the utilities view inventories as strategic and are therefore unwilling to release inventory to the market as some uranium bears imply.

Highlights from the Q3 reporting

Cameco CEO Tim Gitzel made an interesting comment as part of the group's Q3 reporting: "We are effectively navigating current market developments and are making the decisions necessary to keep the company strong and viable for the long term." It was very clear on the Q3 results call that the company is committed to a sustained uplift in the uranium price. With its actions therefore likely to persist beyond the recent uplift in the uranium price.

The company is of the view that the spot market appears to have been resuscitated, but there is at best only a tentative recovery in the long-term contract market. This is visible in the 20%-plus improvement in the spot price in 2018, while the long-term contract price is only up 6%.

McArthur River closure update

The decision to place the McArthur River mine on C&M appears unwavering. The company has stated that it will only restart when it can achieve sensible long-term contract pricing to ensure sustainable cash margins from the mine. Given that we have not yet seen a long-term contract price recovery, and the volumes in the term market remain thin, there appears to be some way to go before we can expect the company to discuss a restart of the mine. The management team stated in no uncertain terms that it would not produce from the tier one assets if it means driving the market to a state of oversupply, nor is the company willing to build inventory.

Competitive landscape

Through 2018 there has been a flurry of new players entering the uranium space, including Yellow Cake, which was established in the London IPO in the summer. Most of these new players are in the form of equities funds, however there are some new physical holdings, too. Below we detail the new landscape for financial players in the uranium space.

Physical holding structures

We are most supportive of the physical holding strategy in these earlier stages of the recovery in the uranium pricing cycle. This is largely because these businesses are beneficiaries of the difficult and expensive decisions being made by the miners to scale back or close operations. The other thing to note is that these businesses are not suffering a pricing headwind as higher priced fixed contracts roll-off over the coming years, as will be experienced by many of the miners.

Uranium Participation Corp

UPC remains the most established player in the physical holding peer group. For now, it has the largest uranium holding, however this scale advantage will be eroded with Yellow Cake able to access \$100m of uranium each year under the Kazatomprom supply agreement. The group's ability to continue to grow the uranium holding is certainly not as strong as shown by Yellow Cake, as demonstrated by the company purchasing \$15m of uranium this summer, while Yellow Cake was raising \$200m for the IPO and initial purchase. We believe that the scale up of the Yellow Cake holding will widen the cost advantage/gap between the two businesses and should see Yellow Cake trade on stronger NAV multiples, given a lower effective cost of carry.

Uranium Trading Corp

UTC announced in October that it had commenced a \$50m-57m IPO. The company was founded in June 2018 and is looking to create value through trading uranium and investment in a physical holding in order to capture the same capital appreciation opportunity that is targeted by UPC and Yellow Cake. The US SEC registration document states that a minimum of 85% of the net proceeds from the raise will be used to establish the physical holding and trading programme. The group has therefore entered into an agreement to purchase 2Mlbs of uranium at a 1.5% discount to the prevailing spot price.

We have not seen news on the successful completion of the IPO and therefore suspect the deal has been delayed. Assuming the IPO does continue to advance, we note that the business model is materially different from that of Yellow Cake and UPC in that UTC is looking to actively trade uranium in order to generate revenue. Yellow Cake and UPC could both take on a similar approach, however we feel that this introduces additional risk, such as counterparty risk and a risk of uranium having to be sold to cover trading losses. We therefore prefer the more vanilla approach of Yellow Cake. There is also a meaningful scale gap between the two businesses. With an intention to purchase only 2Mlbs, the holding will be less than a quarter of the size of Yellow Cake's

The emergence of new physical holding structures is a positive for the Yellow Cake investment case. The proposed scale of UTC is not big enough to cannibalise the investor demand for Yellow Cake, so it therefore should not be a drag for Yellow Cake's rating relative to NAV (premium/discount). Simply having more uranium tied up in long-term buy-and-hold strategies is a positive for Yellow Cake as it works to tighten the market further.

New uranium funds

Sachem Cove Partners

We believe the Sachem Cove Special Opportunities Fund has raised ~\$30m to invest in listed equities of uranium miners and nuclear power fuel cycle companies on the US, Canadian and Australian exchanges. The fund also invests in some private businesses in the sector. We caught up with the team at Sachem and it focuses mostly on the junior space (NexGen, Denison and Fission as examples). Its thesis is that many of these businesses

have been abandoned by investors through the decline in the uranium price and therefore offer some of the highest gearing to the rising price.

Segra Capital

Segra is a Dallas-based hedge fund focused on thematic investments and has supposedly made a series of investments on the uranium industry since 2017. It is a current shareholder of NexGen Energy and is a firm believer that the majority of uranium development projects require a uranium incentive price of \$70/lb. Adam Rodman, the CIO, believes uranium is trading significantly below its marginal global extraction cost, and certainly below its marginal incentive cost. He thinks we are in an environment where we are at the bottom of the contracting cycle for utilities, which have zero incentives to buy, regardless of the underlying price of uranium.

L2 Capital Partners

It has been reported that the Brazilian-based hedge fund, which has been a uranium bull since 2017, is raising \$30m of new money and drawing \$70m from its main fund to invest in uranium. We believe L2 Capital will use the \$100m proceeds to invest in uranium through mining stocks. The fund is firmly under the impression that the most profitable way to get exposure to the uranium cycle is investing in a few selected mining company stocks. L2 forecasts 2018 production to be c150Mlbs and supply of 175Mlbs, with the difference made up by secondary supplies. It forecasts a \$40/lb price in the next six to 18 months.

Ocean Nuclear

The Chinese financial services provider for the nuclear energy industry has recently teamed with the *Financial Times* to promote the nuclear and uranium market to investors by hosting a conference in June 2018. It is currently in the process of raising \$5bn to fund infrastructure projects in nuclear energy. It conducted the first of its European meetings with investors in London on 7 June 2018 as part of a global roadshow programme of 144 meetings. Current investment partners include the Silk Road Energy Fund, which aims to raise \$80m and is supported by the Belt and Road infrastructure development initiative, and Sunac China Infrastructure Fund, which aims to raise \$2bn.

Tribeca Investment Partners

The Australian fund manager has bet on a sector recovery over the next two to four years with the launch of its Nuclear Energy Opportunities Fund. The fund invests in the equity and debt of companies involved in the nuclear energy sector with a key focus on uranium. Its target number of holdings is 15-20 positions. Tribeca sees prices at least doubling from \$20 a tonne over the next few years.

Paradice Investment Management

While not a new fund, Paradice has recently been active in investing in the uranium space. It is a private Australian investment fund with AUD15bn AUM and a focus on small and mid-cap equities. It recently acquired a 9.8% stake in the uranium development company Vimy Resources, which is listed on the ASX, for about AUD2.1m in November 2018. Prior to this, it also acquired a 10% stake in the junior uranium explorer Boss Resources, also listed on the ASX, in August 2018.

Timeless Uranium Fund

Timeless was established in 2015 as a fund with a mandate that allows it to invest up to 10% in stocks, warrants and convertible bonds issued by listed companies that directly invest, deal or hold physical uranium, 60% in uranium producing and new generation producing companies, which have a target production up of to four years from now, and 30% in listed junior uranium exploration companies. As of 31 December 2017 its top holdings are: Appia Energy, Deep Yellow, Energy Fuels, Peninsula Energy, Fission Uranium, Laramide Resources, GoviEx, ALX Uranium and physical U₃O₈.

Yellow Cake plc

Metals & Mining – Uranium



Figure 19: Financial forecast summary

| Year end 31 March | 2019E | 2020E | 2021E | 2022E | | 2019E | 2020E | 2021E | 2022E |
|--|----------------|--------------|--------------|--------------|---|-------------|-------------|-------------|------------|
| Profit & loss summary (US\$ m) | | | | | Key assumptions | | | | |
| Group revenue | - | - | - | - | Uranium (\$/lb) - Period average | 26.54 | 34.81 | 43.00 | 49.75 |
| Operating costs | - | - | - | - | Uranium (\$/lb) - Period end | 31.25 | 38.50 | 48.00 | 50.00 |
| Depreciation & amortisation | - | - | - | - | \$/£ | 1.32 | 1.33 | 1.35 | 1.35 |
| Gross profit | - | - | - | - | NAV over time | | | | |
| Corporate overheads | (0.7) | (0.9) | (0.9) | (0.9) | Cash | 9 | 7 | 5 | 7 |
| Fees to management co. | (2.5) | (1.1) | (1.3) | (2.1) | Debt | 0 | 0 | 0 | 0 |
| Unrealised gain/(loss) on investments in uranium | 82.6 | 61.2 | 80.2 | 16.8 | Uranium value | 264 | 325 | 405 | 411 |
| Other income | (3.2) | - | - | - | NAV (\$m) | 273 | 332 | 410 | 417 |
| EBITDA | 76.2 | 59.2 | 78.0 | 13.8 | | | | | |
| Adj. EBITDA | (1.5) | (2.0) | (2.2) | (2.3) | | | | | |
| Finance income | 0.1 | 0.1 | 0.1 | 0.1 | | | | | |
| EBIT (operating profit) | 76.2 | 59.2 | 78.0 | 13.8 | | | | | |
| Income tax | - | - | - | - | | | | | |
| Other comprehensive income | - | - | - | - | | | | | |
| Income from continuing operations | 76.2 | 59.3 | 78.0 | 13.9 | | | | | |
| Non-controlling interests | - | - | - | - | | | | | |
| Net income | 76.2 | 59.3 | 78.0 | 13.9 | | | | | |
| EPS (basic) (USDC) | 148.9 | 77.8 | 102.4 | 18.2 | | | | | |
| Non-recurring items post tax | - | - | - | - | NAV | | | | |
| Net income (adjusted) | (1.4) | (1.9) | (2.2) | (2.2) | US\$(000) | | | | |
| EPS (adjusted) (USDC) | (2.7) | (2.6) | (2.8) | (2.9) | NAV at \$25.7/lb (spot) | | | | |
| DPS (\$) | - | - | - | - | FY19 NAV (\$28.75/lb) | | | | |
| Weighted avg shares outstanding (m) | 51.2 | 76.2 | 76.2 | 76.2 | FY22 NAV (\$50/lb) | | | | |
| Tax rate (%) | - | - | - | - | U308 volumes in storage (Mlbs) | 8.4 | 8.4 | 8.2 | |
| Dividend payout ratio (%) | - | - | - | - | U308 value in storage (US\$m) | 247 | 264 | 411 | |
| Balance sheet (US\$ m) | | | | | Adjustments: | | | | |
| Cash & equivalents | 8.9 | 7.0 | 4.8 | 6.6 | Net cash/(debt) (US\$m) | 9.4 | 8.9 | 6.6 | |
| Accounts receivable | 0.0 | 0.0 | 0.0 | 0.0 | Working capital | (0.2) | (0.2) | (0.3) | |
| Inventory | - | - | - | - | NAV (US\$m) | 256 | 272 | 417 | |
| Other current assets | - | - | - | - | Present value of NAV (5% discount rate) | 0 | 0 | 358 | |
| Total current assets | 8.9 | 7.0 | 4.9 | 6.7 | Valuation/share (GBP) | 2.59 | 2.76 | 3.62 | |
| Investments in uranium | 264 | 325 | 405 | 411 | Implied premium/(discount) | -5% | -11% | -33% | |
| Exploration and evaluation asset | - | - | - | - | Uplift on IPO raise (\$200m) | 27% | 35% | 79% | |
| Total investments | 264 | 325 | 405 | 411 | | | | | |
| Other long-term assets | - | - | - | - | | | | | |
| Total non-current assets | 264 | 325 | 405 | 411 | | | | | |
| Total assets | 273 | 332 | 410 | 417 | | | | | |
| Accounts payable | 0.2 | 0.3 | 0.3 | 0.3 | | | | | |
| Short-term debt | - | - | - | - | | | | | |
| Other current liabilities | - | - | - | - | | | | | |
| Total current liabilities | 0.2 | 0.3 | 0.3 | 0.3 | | | | | |
| Long-term debt | - | - | - | - | | | | | |
| Derivative financial liability | 3.0 | 3.0 | 3.0 | 3.0 | | | | | |
| Total long-term liabilities | 3.0 | 3.0 | 3.0 | 3.0 | | | | | |
| Total liabilities | 3.2 | 3.3 | 3.3 | 3.3 | | | | | |
| Total common equity | 193 | 193 | 193 | 193 | | | | | |
| Minority interest | - | - | - | - | | | | | |
| Total liabilities & equity | 273 | 332 | 410 | 417 | | | | | |
| Working capital | (0.2) | (0.2) | (0.3) | (0.3) | | | | | |
| Net debt / (cash) | (8.9) | (7.0) | (4.8) | (6.6) | | | | | |
| Capital employed | 272 | 332 | 410 | 417 | | | | | |
| Cash flow summary (US\$ m) | | | | | | | | | |
| Profit before tax | 76.2 | 59.3 | 78.0 | 13.9 | | | | | |
| Forex rate (gain)/loss, net | 0.4 | - | - | - | | | | | |
| Purchase commission | - | - | - | - | | | | | |
| IPO costs | - | - | - | - | | | | | |
| Working capital flows | (0.0) | 0.0 | 0.0 | 0.0 | | | | | |
| Finance income | (0.1) | (0.1) | (0.1) | (0.1) | | | | | |
| Unrealised gain/loss in uranium investment | (85.6) | (61.2) | (80.2) | (16.8) | | | | | |
| Cash flow from operations | (6.1) | (2.0) | (2.2) | (3.0) | | | | | |
| Purchase of uranium | (178.2) | - | - | (88.9) | | | | | |
| Purchasing commission | - | - | - | - | | | | | |
| Sale of uranium | - | - | - | 93.6 | | | | | |
| Cash flow from investing | (178.2) | - | - | 4.7 | | | | | |
| Share issuance | 201.5 | - | - | - | | | | | |
| Share issue costs/IPO cost | (8.4) | - | - | - | | | | | |
| Share buyback | - | - | - | - | | | | | |
| Cash flow from financing | 193.1 | - | - | - | | | | | |
| Total cash flow | 8.9 | (2.0) | (2.2) | 1.7 | | | | | |
| Free cash flow | (184.2) | (2.0) | (2.2) | 1.7 | | | | | |

Source: Company reports, Berenberg estimates

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Production of the recommendation completed: 27.11.2018, 13:48 GMT

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| Date | Price target - GBp | Rating | First dissemination GMT | Initiation of coverage |
|----------------|--------------------|--------|-------------------------|------------------------|
| 06 August 18 | 249 | Buy | 2018-08-06 06:59 | 06 August 18 |
| 10 August 18 | 254 | Buy | 2018-08-10 08:53 | |
| 27 November 18 | 273 | Buy | = | |

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|------|---------|---------|
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