rmwise research

20 June 2008

ASX Code: FIS
Valuation: $0.60
Speculative Buy

Fission Energy Limited

Acquires Major Cobalt-Nickel Play

Capital Structure (Pro Forma)	
Sector	Materials
Share Price	$0.19
12 Month Target Price	$0.60
Market Capitalisation	$24.1m
Market Cap-Fully Dilluted	$31.9m
Shares	127m
Options (ex 20, 28/02/11)	41.0m
Options (Other)	2.5m
Cash (Post Cap Raising)	$6.5m
Share Price Yr H/L	$0.26-$0.098

Directors	
Greg Solomon	Chairman
Guy Le Page	Non-Executive Director
Doug Solomon	Non-Executive Director

Major Shareholders	
Tasman Resources Ltd	43.8%
RBC Dexia Inv Serv Australia	7.2%
Taycol Nominees	1.4%

Analyst Details

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Share Price Performance

Source: E-Trade.com

Corporate

Fission Energy Limited ("Fission", "the Company") is placing (subject to, inter alia, shareholder approval) A$6.72 million (A$3.39m to be underwritten by SelectInvest Pty Ltd) via the issue of 42.0 million shares at 16 cents each to fund, in part, the acquisition of 100% of the issued capital of Meteore Metals Limited ("Meteore Metals, Meteore"), a Feasibility Study on the Mt Thirsty Nickel Cobalt Project ("Mt Thirsty") and ongoing uranium exploration at both Wynbring and Garford Projects (South Australia) where first passing drilling has returned very encouraging results.

Acquires 100% of Meteore Metals Limited

On 18th April 2008, Fission signed a Sale and Purchase agreement to acquire 100% of Meteore, the manager of a 50:50 Joint Venture with Barra Resources Limited ("Barra Resources") on the Mt Thirsty Project. Total consideration for the acquisition of Meteore is A$8.0 million (approximately A$6m in cash and the balance in shares) payable in instalments subject to, inter alia, due diligence by Fission, raising a minimum of A$4.0 million and shareholder approval at a General Meeting of Fission on 1 July 2008.

Mt Thirsty is situated approximately 20km north-northwest of Norseman in Western Australia. Golder Associates Pty Ltd has estimated an Indicated and Inferred Resource of 20,970,000 tonnes grading 0.62% Ni, 0.14% Co and 1.01% Mn containing around 130,000 tonnes of Ni, 29,000 tonnes of Co and 210,000 tonnes of Mn. The Resource is confined to a single orebody at shallow depths extending over a strike length of 1,100 metres with an average width approaching 600 metres.

Barra Resources and Fission intend to fast track a Feasibility Study which is anticipated for completion by 4Q2008. This study will likely focus on atmospheric leaching technology that is currently intended to be rolled out at a number of projects in Australia and overseas in the near term.

RMWise Research believe that Mr Thirsty's high-grades, excellent metallurgical characteristics and favourable ore geometry have the potential to generate a low cost, long mine life (18-20 years) operation applying atmospheric leach technology.

South Australian Uranium Shines

Uranium exploration at the Wynbring Project (Fission: 100%) has delivered highly encouraging results returning assays up to 5m @ 219ppm (including 1m @ 455 ppm) in turn confirming significant palaeochannel uranium potential. A second drill program is in progress. At the Garford Project, a first pass drilling program has commenced and three further exploration licenses have been granted in Western Australia.

Outlook

RMWise Research considers the Feasibility Study at Mt Thirsty, due for completion in 4Q2008, has an excellent chance of outlining a low cost, long mine life operation. The joint venture is also keen to follow up potential massive nickel sulphide targets. Encouraging results from Wynbring are also likely to focus market attention with strongly anomalous uranium returned from just the first pass drilling program. Based on Barra Resources EV/Nickel Tonne (Equiv) we value Fission at A$0.33, however this assumes a zero value for the uranium tenements. Resource upgrades together with on going feasibility work should see Fission Energy move through A$0.60 over the next 12 months.

Company Background

Fission listed in June 2007 as a uranium explorer.

Fission Energy Limited (ASX:FIS) is a uranium exploration company based in Perth, Western Australia. Fission was spun out of Tasman Resources NL ("Tasman") and listed on the Australian Securities Exchange ("ASX") in June 2007 after raising A$6 million.

Fission has the uranium exploration rights to Tasman's extensive portfolio of wholly owned exploration properties on the Gawler Craton in South Australia as well as exploration licence applications in Western Australia. Fission's current exploration focus is on the Wynbring and Garford projects in South Australia which have good potential for the discovery of palaeochannel hosted (roll front style) uranium deposits.

RMWise Research views the Gawler Craton in South Australia as an excellent place to explore as it is a well endowed uranium province and the South Australian Government is strongly supportive of uranium exploration and mining.

On 18th April 2008, Fission signed a conditional agreement to acquire nickel explorer Meteore Metals.

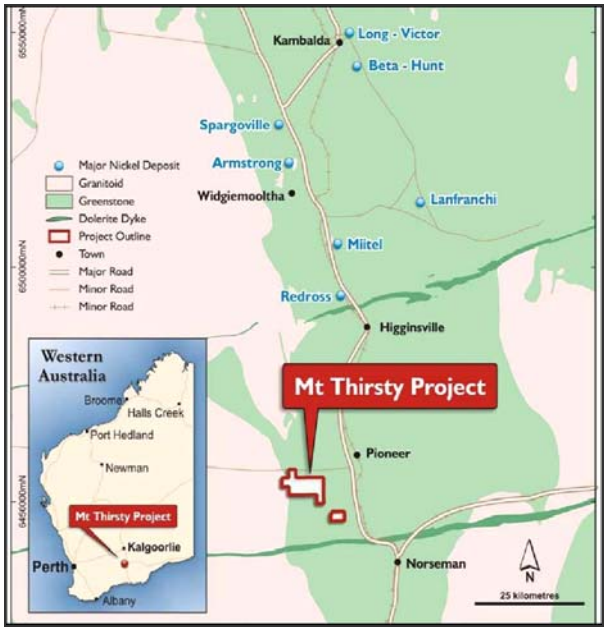
On 18 April 2008, Fission sought to diversify its exploration portfolio via the proposed acquisition of 100% of the issued capital of Meteore Metals which has a 50:50 JV on Mt Thirsty situated approximately 20km north-northwest of Norseman in Western Australia. Golder Associates Pty Ltd has estimated an Indicated and Inferred Resource of 20,970,000 tonnes grading 0.62% nickel, 0.14% cobalt and 1.01% manganese. The total Indicated and Inferred Resource contains approximately 130,000 tonnes of nickel, 29,000 tonnes of cobalt and 210,000 tonnes of manganese.

Exploration Portfolio

Mt Thirsty Nickel-Cobalt-Manganese Project (FIS: 50%)

The Mt Thirsty Project is located 20km north-northwest of Norseman, Western Australia (Figure 1). Meteore Metals entered into an Option Agreement with Barra Resources in late December 2006, whereby Barra Resources agreed to spend $500,000 to participate equally with Meteore to develop the project.

Figure 1: Mt Thirsty Project Location



Source: Barra Resources Limited

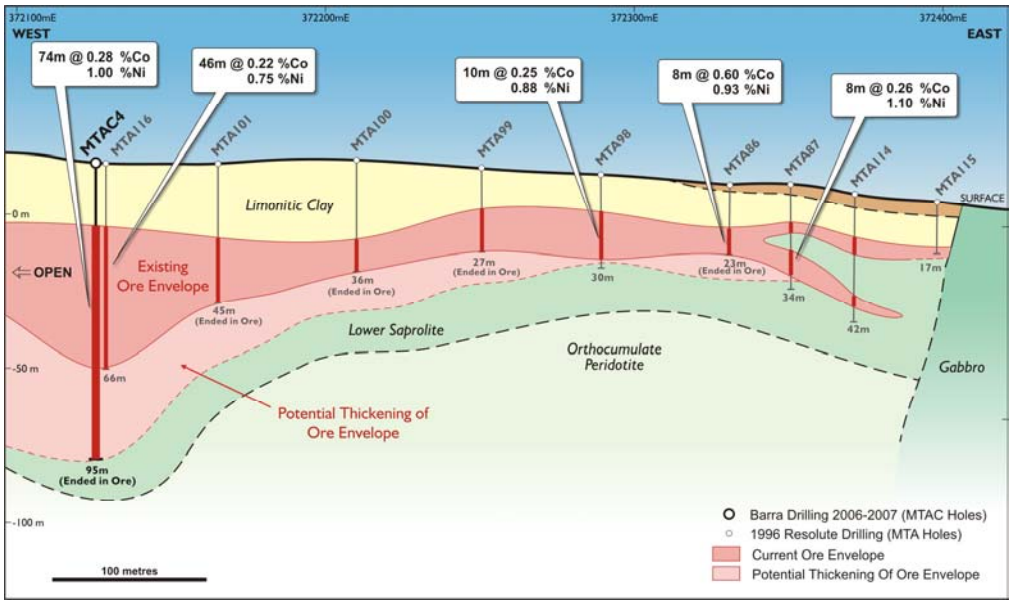
Most of the geological and resource information below is based on data from ASX announcements and reports prepared by Barra Resources.

The deposit differs from typical laterites with high cobalt values…

Previous explorers in the mid 1990's defined an Indicated and Inferred oxide cobalt-nickel Resource of 8,381,000 tonnes grading 0.19% cobalt and 0.64% nickel (Barra ASX announcement 21st December 2006). Drilling by Barra Resources during 2007 confirmed excellent geological and grade continuity between these new holes and previous exploration drilling. Barra Resource's drilling also revealed the ore profile to be substantially thicker in various parts of the deposit due to the inability of previous drilling to penetrate deep enough into the ore profile (Figure 2).

…RMWise Research is confident of improved metallurgical recoveries

Figure 2: Cross Section at the Mt Thirsty Project at 6,447,400m N



Source: Barra Resources Limited 2007 Annual Report

As a consequence of the 2007 drilling program, the initial resource estimate was substantially increased to a total Indicated and Inferred Resource of 20,970,000 tonnes grading 0.14% cobalt, 0.62% nickel and 1.01% manganese (Table 1).

Table 1: Mt Thirsty Resource Statement

Resource cut-offs	Indicated Resources		Inferred Resources		Total Resource	
Cobalt	Tonnage	Co/Ni/Mn%	Tonnes	Co/Ni/Mn%	Tonnage	Co/Ni/Mn
0.00%	15,010,000	0.17/0.63/1.25	5,960,000	0.06/0.61/0.40	20,970,000	0.14/0.62/1.01
0.08%	14,880,000	0.17/0.63/1.25	670,000	0.13/0.59/1.00	15,540,000	0.17/0.63/1.24
0.10%	13,990,000	0.17/0.63/1.29	500,000	0.15/0.58/1.14	14,490,000	0.17/0.63/1.29
0.20%	3,350,000	0.27/0.68/2.02	60,000	0.27/0.61/1.91	3,410,000	0.27/0.68/2.02
0.30%	880,000	0.38/0.75/2.73	10,000	0.42/0.48/1.17	900,000	0.38/0.75/2.71

Source: Barra Resources Limited 2007 Annual Report

The 2007 exploration program resulted in a substantial increase in Resources at Mt Thirsty.

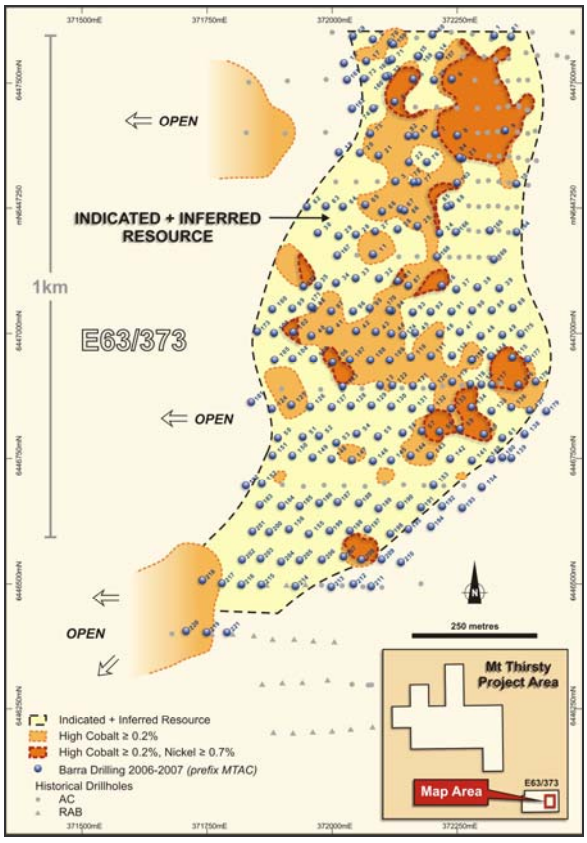
As part of the feasibility study, metallurgical test-work by Murdoch University and Metplant Ltd is likely to be ongoing. This resource is confined to a single orebody extending over a strike length of 1,100 metres with an average width of 600 metres (Figure 3).

Resource Estimation Summary

The Mt Thirsty resource is based on aircore drilling at a density of 50m x 50m which are then digitized and wireframed in 3D. These resources are confined to a single orebody at shallow depths extending over a strike length of 1,100m, between 7,600N and 6,500N sections, with an average width approaching 600m and 12m in thickness. The resources all lie within 40m depth and are open to the west, south and at depth. **RMWise Research** believes that the resource potential is in excess of 30Mt.

RMWise Research understands that a further resource determination is due within the next few months following a campaign of step out drilling to the west of the resource envelope (Figure 3). These results are likely to include an updated density figure from recent PQ (large diameter) drilling.

Figure 3: Mt Thirsty Resource Outline



Source: Barra Resources Limited 2007 Annual Report

Metallurgy

RMWise Research consider the resource potential at Mt Thirsty is in excess of 30Mt.

The deposit differs from typical nickel laterite occurrences in that it is completely oxidised and contains up to eight times the cobalt content. The differing mineralogy of the deposit, a product of the unique weathering, allows for rapid high leaching recoveries, 83% cobalt and 50% nickel, at moderate temperatures and normal atmospheric pressure utilising weak acidic reagents. Metallurgical testwork to date has been undertaken by both Murdoch University and Metplant and **RMWise Research** believe that further optimised results are due to be released shortly.

Feasibility Study

The deposit is amenable to rapid leaching at atmospheric temperatures and pressures.

The joint venture parties are proposing to fast track a Feasibility Study due for completion in 4Q2008. This study will likely contemplate a 1Mtpa base case scenario producing around 5,500 tonnes of nickel and 2,500 tonnes of cobalt. The study will also investigate the viability of producing either manganese or manganese carbonate which is likely to be dependant, in part, on end user preferences. A stand alone operation on site may cost in the range of A$180m - A$250m however other processing sites are also being investigated. Total costs for the Feasibility Study are likely to lie in the region of A$10m-A$12m (A$5m - A$6m attributable to Fission Energy).

Risks

The JV parties are looking to fast track a feasibility study.

RMWise Research consider the primary risks associated with Mt Thirsty include the cost of acid (estimated at 65% to 75% of total operating costs), construction overruns and delays as the resource sector continues to struggle at near full capacity. Commodity prices are anticipated to remain relatively high in the medium term with supply side constraints likely to place upward pressure on nickel prices. Clearly the nickel and cobalt prices will remain a key risk of the project.

Uranium Exploration

Wynbring (FIS: 100% Uranium Rights)

The Wynbring Project is situated within EL 3306 approximately 100km northwest of Tarcoola in South Australia (Figures 4 and 5). The project covers a Tertiary palaeochannel 15km to the northwest of the Warrior uranium deposit (Toro Energy Ltd) with a similar catchment area.

Results from the December 2007 aircore program returned assays up to 455ppm U_3O_8 over 1m from 57 to 58m in hole 58 broadly support the equivalent U_3O_8 estimates (e U_3O_8) based on down hole gamma logging.

Drilling returned up to 455ppm U_3O_8 over 1m from 57-58m.

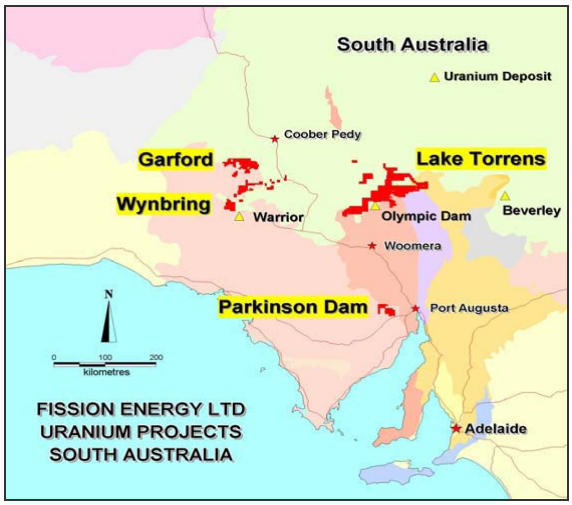
It should be noted that the small and often wet sample size would likely require larger diameter drilling should any potentially economic intersections be intercepted.

The recent drill programs have outlined a portion of a north-south trending palaeochannel up to 1km in width lying within the Wynbring palaeovalley (Figure 4). Anomalous redox related uranium was intersected in the southern portion of the tenement overlying weathered granite.

Follow up drilling is underway along 9km of untested palaeochannels.

Follow up drilling is underway and will target prospective areas along 9km of palaeochannel in particular untested basal sands in the southern portion of the tenement.

Figure 4: Fission Energy Uranium Projects

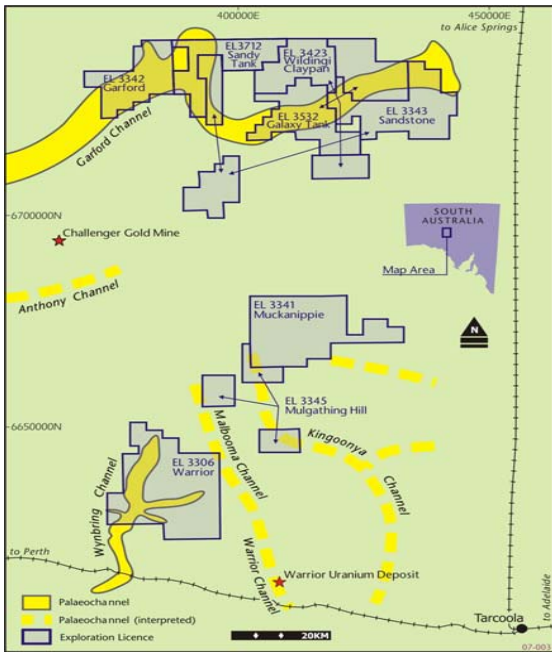


Source: Barra Resources Limited 2007 Annual Report

Garford
(FIS: 100% Uranium Rights)

Garford is situated approximately 80km southeast of Coober Pedy in South Australia (Figures 4, 5) and covers over 80km of untested Tertiary and older palaeo channels. Reconnaissance drilling and down hole gamma logging of this target is underway. During the quarter two Exploration Licences (57/693 & 695 and 77/1393) were granted and cover radiometric uranium anomalies on Lake Barlee and Lake Noondie.

Figure 5: Garford & Winbring Channels



Source: Barra Resources Limited 2007 Annual Report

Comparative Valuation

The market is currently assigning very little value to uranium exploration despite Fissions' very encouraging results at Wynbring. While the valuation of grass roots exploration remains speculative it is possible to gain some insight into the valuation of nickel companies, in particular those companies exploring for low grade nickel+/- cobalt ores that are proposing to use atmospheric leaching (heap /vat leaching) methods (Figure 6). The chart compares Enterprise Value (Market Capitalisation + Net Debt) over contained nickel tonnes (equivalent). That is converting other non-nickel metals to the equivalent nickel value per tonne of ore. In the case of Fission, this valuation assigns no value for the listed entity or the uranium assets, clearly a very conservative approach.

Subtle differences in ore mineralogy, acid consumption, mining costs, clay and iron content for example give rise to substantial variations in both OPEX and CAPEX. The primary benefit of atmospheric leaching is the reduced CAPEX (US$150-US$800m) compared to similar scale High Pressure Acid Leach ("HPAL") in the range of US$1.8b or US 17/lb (e.g. Ravensthorpe) to US$3.0b or US$22.0/lb (e.g. Goro). The downside of atmospheric leaching is the higher OPEX which is projected to be in the order of US$3.2/lb to US$5.0/lb Ni (equivalent) compared to HPAL plants at around US$2.50/lb Ni (equivalent). This is due to the high acid consumption by iron in the course of the Atmospheric Leaching process. See figure 6 for other key comparisons.

Fission appears to be trading at a 54% discount to its peers.

The comparable companies average EV/Tonne Ni (Equiv) of around A$125/tonne suggesting the sector is cheap given its nickel sulphide counterparts. This most likely reflects the markets uncertainty given the paucity of successful operations outside of Murrin Murrin in Australia. A successful commissioning of the Lucky Break Project in Queensland (Metals Finance Corporation 50%: Metallica Minerals Limited 50%) will go a long way to demonstrating the application of the technology in Australia. Notably Fission is trading at a current Enterprise Value of around A$55/tonne Ni (equiv) compared to Barra Resources at around A$100 suggesting that fair value for Fission Energy Limited based Barra Resources capitalisation is around A$0.33 per share or A$0.60 compared to its peers.

Atmospheric leach projects are projected to have significantly lower CAPEX.

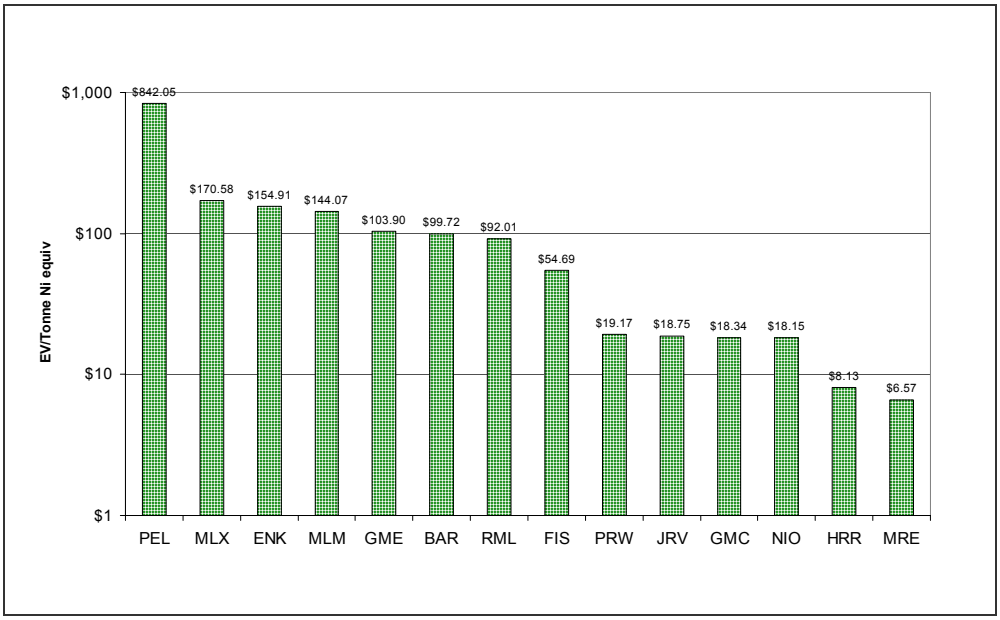
Figure 6: HPAL vs Atmospheric Leach

HPAL	Atmospheric Leach
Pressure Leach	Atmospheric Leach
High Energy	Low Energy
High Pressure	Low Pressure
Exotic materials	Cheaper materials
Solid liquid separation	No CCD's
Tailings disposal	No tailings disposal
High Capex	Lower Capex

Source: RMWise Research

The commissioning of the Lucky Break Project in Queensland should provide a useful benchmark for atmospheric leach projects in Australia.

Figure 7: Listed Nickel Companies



Source: RMWise Research, Company Reports, E-Trade

RMWise Research believes the valuations of both Barra Resources Limited and Fission Energy Limited will move up strongly over the next twelve months as we anticipate the outcome of a positive Feasibility Study.

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RMWise Research Recommendation Categories

Care has been taken to define the level of risk to return associated with a particular company.
Our recommendation ranking system is as follows:

Buy	Companies with 'Buy' recommendations have been cash flow positive for some time and have a moderate to low risk profile. We expect these to outperform the broader market.
Speculative Buy	We forecast strong earnings growth or value creation that may achieve a return well above that of the broader market. These companies also carry a higher than normal level of risk.
Hold	A sound well managed company that may achieve market performance or less, perhaps due to an overvalued share price, broader sector issues, or internal challenges.
Sell	Risk is high and upside low or very difficult to determine. We expect a strong underperformance relative to the market and see better opportunities elsewhere.

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