



## PARAGON AUSTRALIAN LONG SHORT FUND // February 2017

### PERFORMANCE SUMMARY *(after fees)*

	1 month	3 month	6 month	Financial YTD	1 year	2 year p.a.	3 year p.a.	Net Return p.a.	Total Net Return
<b>Paragon Aust. Long Short Fund</b>	-5.0%	-2.0%	-14.4%	-18.7%	+10.0%	+6.5%	+11.0%	+13.6%	+66.7%
<b>ASX All Ordinaries Acc.</b>	+2.1%	+1.8%	+6.3%	+11.9%	+21.9%	+3.2%	+6.5%	+7.5%	+33.5%
<b>RBA Cash Rate</b>	+0.2%	+0.4%	+0.8%	+1.2%	+1.7%	+1.9%	+2.1%	+2.2%	+9.2%

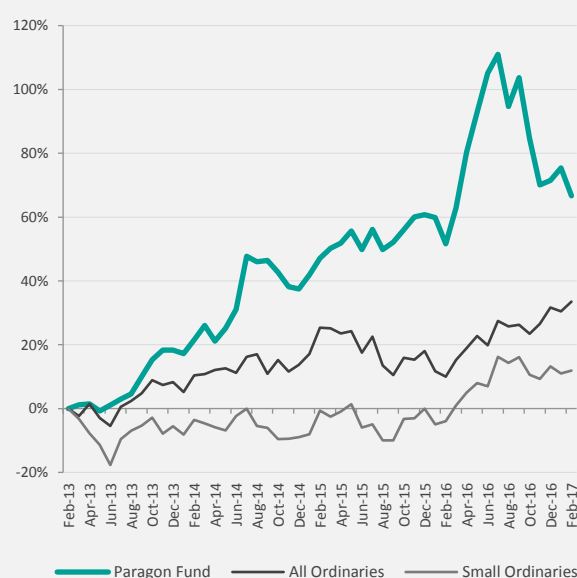
### RISK METRICS

Sharpe Ratio	0.8
Sortino Ratio	1.24
Volatility p.a.	+15.3
% Positive Months	+68%
Up/Down Capture	+73%/+8%

### FUND DETAILS

NAV	\$1.5689
Entry Price	\$1.5713
Exit Price	\$1.5666
Fund Size	\$79.9m
APIR Code	PGF0001AU

### HISTORICAL PERFORMANCE *(after fees)*



### FUND STRATEGY

The Fund is an Australian equities long/short fund established in March 2013. The Fund's strategy is fundamentally driven, concentrated and transparent for investors. Paragon's research process and active portfolio management is overlaid with strong risk management and a focus on capital preservation.

The objective of the Fund is to return in excess of 10% p.a. after fees over a 3-5yr investment horizon.

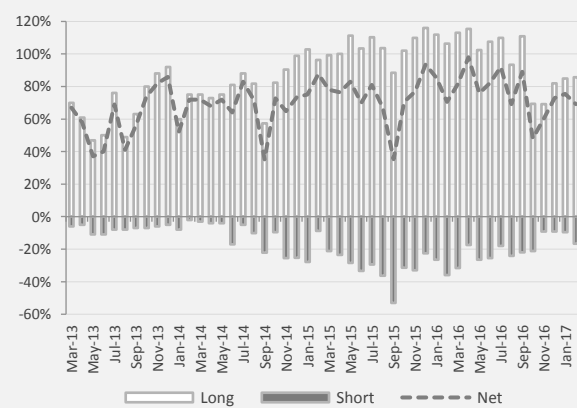
### OVERVIEW & POSITIONING

The Fund returned -5.0% after fees for the month of February 2017. Since inception (March 2013) the Fund has returned +66.7% after fees vs. the market (All Ordinaries Accumulation Index) +33.5%.

Main contributors to the result in February were gains in Clean TeQ, however offset by a large fall in Orocobre (surprise production downgrade), and corrections post capital raisings in both Galaxy and Blackham Resources. At the end of the month the Fund had 31 long positions and 11 short positions.

INDUSTRY EXPOSURE	Long	Short	Net
Financials	+20.6%	-4.9%	+15.7%
Industrials	+18.7%	-5.9%	+12.7%
Resources	+46.6%	-5.8%	+40.8%
Index Futures		0%	0%
<b>Total</b>	<b>+85.8%</b>	<b>-16.7%</b>	<b>+69.1%</b>
<b>Cash</b>			<b>+30.9%</b>

### HISTORICAL EXPOSURE



### MONTHLY PERFORMANCE BY CALENDAR YEAR

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YTD
<b>2013</b>			1.1%	0.3%	-2.2%	1.8%	1.8%	1.6%	5.3%	4.9%	2.8%	0.0%	<b>18.7%</b>
<b>2014</b>	-1.1%	3.8%	3.6%	-3.9%	3.2%	4.9%	12.5%	-1.1%	0.3%	-2.5%	-3.1%	-0.5%	<b>15.9%</b>
<b>2015</b>	3.2%	3.6%	2.1%	1.1%	2.4%	-3.8%	4.3%	-4.2%	1.6%	2.5%	2.6%	0.3%	<b>16.8%</b>
<b>2016</b>	-0.5%	-5.2%	7.4%	10.8%	7.0%	6.3%	2.9%	-7.8%	4.3%	-9.0%	-7.9%	0.8%	<b>6.8%</b>
<b>2017</b>	2.3%	-5.0%											<b>-2.8%</b>

Performance results are presented net of all transaction costs, investment management and performance fees incurred by the Fund. Monthly performance figures are calculated based on the lead series using a monthly unit pricing methodology based on historical data.



## Strengthening Electric Vehicles (EV) and Lithium-ion battery markets

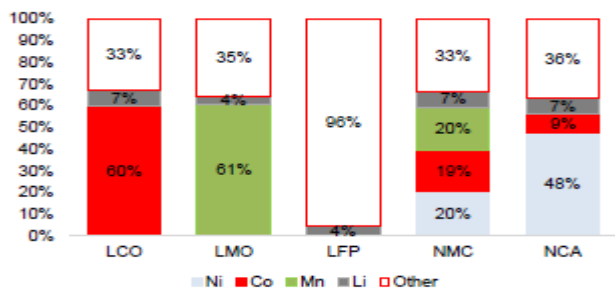
We have discussed and presented our key EV theme several times over the years. Most recently in our [April 2016 monthly](#), we wrote about our top-down Lithium investment thesis and the companies' best placed to benefit. Since our last update, EV and their mass market rollout plans continue unabated, with nearly all the major auto manufacturers either ramping up, building or expediting plans for large scale EV roll out. Fourteen megafactories are being built globally, with more planned by Tesla, VW and others across the globe. The global EV battery market is set to grow strongly to \$40b+ by 2025, where China's EV battery market is likely to triple and be half of this at \$20b+ by 2025. In 2016, ~777k Electric and Hybrid vehicles were sold, up over 40% on 2015 and still representing a mere <1% of the ~82m new cars sold globally in 2016.

Tesla is important and grabs most of the EV headlines, but it's much more about China. China, the world's largest auto market (#1 selling ~27m cars in 2016 vs. #2 the USA at ~18m) is driving a material move towards EV as part of its efforts to combat pollution. Driven by demand for EV and government support via its aggressive subsidy programs, China EV sales alone are well placed to rise from 507k in 2016 to 3m p.a. by 2025.

### China policy shift set to bring Cobalt to the fore

Recent China EV & E-bus policies set out in January 2017 confirmed and prioritised higher battery quality technologies - specifying high specific energy and better driving range. This should see a decline in use of Lithium-Iron-Phosphate (LFP) - the current prevailing EV battery in China. The major opportunity as we see it is the subsequent move toward Nickel-Cobalt-Aluminium (NCA) and Nickel-Cobalt-Manganese (NCM) battery chemistries. Cobalt is set to become as integral in the battery Cathodes as Lithium, as shown in Figure 1 below.

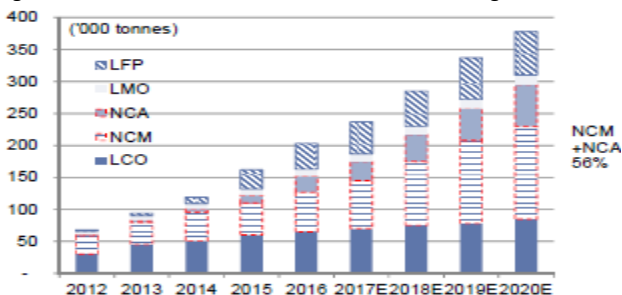
Figure 1: Composition of major battery Cathodes



Source: Avicenne, Macquarie

Note NCA and NCM battery technologies are already being used by Tesla, BMW and other leading car manufacturers.

Figure 2. Lithium & cobalt-rich NCM & NCA batteries to gain market share



Source: B3, Easpring, Gao Hua Securities Research, Goldman Sachs

### Push to secure critical raw materials supply

Many leading economic groups forecast EV annual global sales to achieve 8-10% market share by 2025. This would require the current ~200ktpa Lithium

market (~US\$2b p.a.) to triple and the current ~100ktpa Cobalt market (~US\$3b p.a.) to more than double. The race for securing these key raw materials is on. We have seen several major Lithium-ion battery players across the value chain pursue positions in related resource projects so as to secure critical raw materials supply. With the Lithium market looking to go into deficit first, we invested in various Lithium stocks ahead of the Lithium contract price more than doubling to US\$12,000/t. The Lithium market has remained undersupplied, with the supply response not satisfying the strong demand growth. Many new projects struggle to achieve target production (as evidenced by Orocobre's Olaroz and Neometals/Mineral Resources/Ganfeng's Mt Marion recent production downgrades). Other new supply-side hopefuls remain unfunded and uncommitted. With Cobalt industry deficits now anticipated well before the end of the decade, it has followed Lithium's price dynamic. The Cobalt price has come off historic lows and since December 2016 has doubled to US\$50,000/t+, already high enough to incentive new supply. Note Cobalt's previous high was in 2007 at US\$110,000/t.

Cobalt is primarily produced as a by-product from nickel or copper deposits. There are limited new supply projects globally. Of the list of new hopefuls, very few will be financed and built as will fail on the usual resource development issues – resources lacking scale, complex resource geology and processing requiring outsized capex, making most uneconomic or lacking the management credibility to finance and develop. With limited equity exposures, financial investors are taking physical positions in the metal, adding to the upside pressure in Cobalt prices.

### Clean TeQ the stand-out Cobalt exposure

Clean TeQ is developing its world class Nickel, Cobalt & Scandium Syerston project in NSW, a bonus given around 2/3 of global Cobalt supply comes from the DRC. End users are busily pursuing security of supply, preferably outside of the DRC where mining concerns over social and environment impacts are large, and sovereign risk are high. Clean TeQ management are first class. (For those of you not familiar with Robert Friedland, we highly recommend reading *"The Big Score: Robert Friedland, INCO, And The Voisey's Bay Hustle"*). Clean TeQ is set to become one of the largest and lowest cost suppliers of key cathode raw materials to the lithium-ion battery market, where Syerston will produce a Nickel and Cobalt Sulphates, key ingredients to NCM and NCA batteries. Scandium will also be produced, a critical lightweight alloy required in Aerospace industries. We invested in Clean TeQ at the start of December at \$0.50/sh and our investment case (base-case NPV of ~\$2/sh fully diluted for all funding) was materially derisked last week. They secured an \$81m placement at \$0.88/sh to Pengxin Mining of China (Shanghai-listed, ~US\$3b market cap), who will help Clean TeQ secure project funding for its Syerston development.

### Portfolio and risk management review

As we discussed in our November 2016 monthly, given the nature of the funds strategy – namely concentrated, thematically-driven – we do expect a degree of volatility. Naturally the current volatility levels being experienced are higher than what we are comfortable with. However in the past six months we have experienced an unprecedented number of compounding factors that have negatively impacted the Fund. This does in no way shift our positive sentiment towards our current themes and investments.

We continue to review of our risk management process with our external advisory board member, Tony Hodges. A key outcome of this process has been to introduce dynamic stop-loss triggers as an enhancement to our current risk management approach. This measure has been back tested for its validity, before we will be applying this enhancement from the start of April 2017. If interested in further detail, please contact us and we will be happy to elaborate.

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