EQUITY RESEARCH

Orbital Corporation (OEC)

Propelling

20 April 2020

Heath Andrews
handrews@pacpartners.com.au
+61 3 9114 7415

KEY POINTS

- OEC has patented technology in 2 stroke engines that provides it with a competitive advantage in relation to engines sold into the high growth Tactical Unmanned Aerial Vehicle (TUAV) market.
- A five-year agreement with Insitu (a key TUAV supplier based in the US) to provide up to A$350m of engines, ending in 2023, provides a roadmap for OEC to potentially achieve $100m of revenue pa with Insitu alone.
- The agreement with Insitu is based on five different engines, each taking approximately 18 months to bring into production. The 2nd engine commenced sales in January, 2020. This provides revenue growth in both FY20 and FY21, before the expected sales commence for the 3rd engine.
- We forecast that OEC to generate $2.3m EBITDA in 2H20 (it posted a $1.1m loss in 1H20 and move to positive earnings in FY20.
- The key attraction is the scalability of the business. We estimate it has ~$7m of fixed costs and has a cost base capable of supporting $60-70m of revenue (although ~$3m of capex is required to support each new engine). With each additional engine, revenue is expected to make step changes, leveraging EBITDA.
- OEC operates in a high growth industry that has to date seen little interruption from COVID-19. Peers trade at high multiples and should OEC be successful in delivery on its milestones, it should get materially re-rated. Whilst it doesn't yet have a track record of hitting milestones, the FY20 result is the likely turning point, with guidance appearing almost in the bag. Early recognition of the turning point in a company's fortunes is often the best entry point.
- We estimate the current longer-term market size available to OEC to be A$150-200m. Above this, OEC could broaden the target market by having smaller or larger engines or become a supplier to the eventual winner of the US DoD FTUAS program (an initiative aimed at replacing existing military TUAV's).
- The main risks for OEC include:
  - Current reliance on one customer;
  - Supply chain disruption risk; and
  - Timeframes for new engines entering production could fail to meet expectations.

INVESTMENT VIEW

Due to the expected high growth of OEC (contracted), we use DCF methodology to set our price target. Our $0.88/share target represents a TSR of 36% over the current share price. Due to the high forecast risk, we have a Speculative Buy recommendation.

If OEC were to hit our FY22 forecasts, it would be trading at just 4.5x EV/EBITDA, versus international peers trading at 9.8x, providing strong re-rating potential. Whilst there are risks, should OEC deliver to its potential, its medium share price could be a multiple of where it is today. OEC offers a compelling risk/reward equation in our opinion.

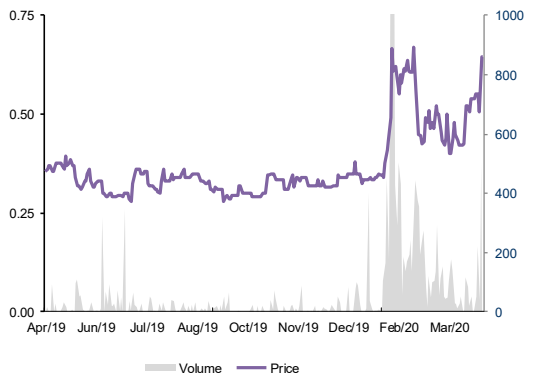
Recommendation	Speculative Buy
Previous Recommendation	Initiating Report
Risk Rating	Very High
Current Share Price	$0.645
12 Month Price Target	$0.88/share
Price target Methodology	DCF
Total Return (Capital + Yield)	36%
FY21F ROIC	16.5%
Market Capitalisation	$50m
Liquidity	$0.1m/day

Financial Forecasts & Valuation Metrics

OEC Y/E Jun A$m	FY19A	FY20F	FY21F	FY22F
Revenue	15.0	29.5	40.6	55.2
EBITDA	-3.2	1.2	5.3	10.3
EPS Adj (c)	-5.3	-1.0	2.3	6.1
EPS Growth	-336%	80%	321%	165%
DPS (c)	0.0	0.0	0.0	0.0
Yield (%)	0.0%	0.0%	0.0%	0.0%
EV/EBITDA (x)	(15.8)	44.8	9.7	4.5
PE Underlying (x)	-12.2	-61.9	28.0	10.5
Gearing (%)	5%	9%	5%	-19%

Source: PAC Partners estimates

12 Month Share Price and Volume



Key Milestones

- **FY20 result,** with an expected large uptick in revenue and a profitable 2H20.
- Potential exists to achieve FY20 revenue towards the upper end of guidance. Guidance is $25-$35m revenue. We are forecasting $29.5m
- Details around a potential new agreement with Textron, its 2nd largest customer.
- An update on the progress of the 3rd engine to come into production, currently forecast at the beginning of FY22.
- FY21 guidance at the FY20 result. We expect FY21 to be a significant year in terms of profit growth.

Orbital Overview

ABOUT ORBITAL

OEC is leveraging its 30 years of experience in 2-stroke engines in a niche industry

OEC designs, builds and supplies propulsion systems (engines and parts) to the Tactical Unmanned Aerial Vehicle (TUAV) market. TUAV's are mostly used by military. OEC supplies 2-stroke engines (and parts), including patented fuel delivery and electrical control systems that are designed to operate on heavy fuel (i.e. jet fuel), the fuel of choice of the military.

TUAV's are primarily used for surveillance, be it military, border protection or bushfire monitoring.

CUSTOMERS

OEC's success is essentially leveraged to the success of Insitu. Fortunately, it appears to have class leading technology and a dominant market position

OEC has two primary customers, being Insitu (Boeing's 100% owned aerospace defence subsidiary and representing >80% of OEC's revenue) and Textron. A large Singapore defence contractor has also been onboarded in 2020, though the road to material sales with a new customer is likely to be 2-3 years. Both Insitu and Textron are US based. The US has historically dominated R&D and sales in small to mid-sized TUAV's, and countries wanting to align with the US often buy military supplies from the US. Insitu and Textron are considered market leaders in TUAV's.

Insitu predominantly supply small TUAV's. A small TUAV is defined as having:

- A wingspan of up to 5m (small enough to be lifted by a human, but too large to be launched by hand);
- Capability to Fly at up to 20,000 feet (6,000m); and
- A maximum endurance of 24 hours flight time.

OEC commenced working with Insitu in 2013 and shipped its first propulsion systems in May, 2016. This highlights the long lead time for market acceptance and the difficulties a manufacturer would have in changing its propulsion system provider.

OEC has a long- term agreement with Insitu to provide up to A$350m of propulsion systems between 2018 and 2023. OEC started supplying this agreement with one engine design. In January 2020, OEC commenced shipments of an Insitu designed engine. OEC guide that each engine variant of its propulsion systems adds up to $20m in revenue pa. In total, there are plans to build five different engine variants, with each additional engine taking ~18 months to bring into production.

Contract awards and primary supplier status highlights the quality of the product OEC is supplying, protected by patents

In March 2020, OEC announced it had entered into a MoU to be the primary supplier of TUAV engines to Insitu (from a shared supply agreement previously). We see this as a major endorsement of OEC's propulsion systems and manufacturing expertise.

Textron could be a future revenue driver for OEC

OEC commenced supply of engines to Textron in 2012. Post a dispute around engine performance, OEC moved to a supply of parts long term agreement with Textron in June 2014. Since then, relations have strengthened and OEC supplies patented product that Textron cannot source elsewhere. Whilst the term of the contract was not announced, it is likely that this contract has already completed or be up for renewal in the short term (we believe a long-term contract is likely to be 5-6 years). We believe the relationship with Textron is very likely to continue and this could be a near term growth driver for OEC.

OPERATIONS

Commencing production in the US has been a long journey, but an important step in the longer-term success of OEC

OEC's head office and Australian manufacturing operations are based in Balcatta (Perth). The majority of the design team and back office support are serviced from Balcatta.

In December 2017, OEC secured a lease on a site at Hood River, Oregon. This is in close proximity to Insitu's main operations. The site has design, testing, assembly and servicing capabilities. The 2nd engine under construction for Insitu is being assembled in Hood River.

The US based operations make OEC more accessible to its customers and assists with meeting US sourced products criteria for military products, should that become a problem in the future. The production of the 2nd engine is the first production to be performed in the US.

We believe that the combined workshop and office space at Balcatta and Hood River has enough floor space to support up to $60-70m pa of revenue.

COMPETITIVE ADVANTAGES AND PATENTS

TUAV's require the following features to appeal to customers:

- Long air time (up to 24 hours),
- Fast start (Military often require instant intelligence),
- Low servicing requirement; and
- Above all else, reliability (i.e. no failure in the field).

OEC claims to have the best performance amongst its competitors on all these measures, see Figure 1:

Figure 1: OEC propulsion system operating comparisons

According to OEC, its product has material advantages over competitors

Key characteristic	OEC	Others
Time between engine overhaul	500 hrs	~50 hrs
Cold start to launch	2 min	> 20 min
Passed x3 U.S. FAR33.49 endurance test	Yes	No

Source: OEC

OEC has over 30 years-experience developing 2-stroke engines. The introduction of stricter emission standards globally led OEC to narrow its focus to the TUAV market. The key to OEC's competitive advantage is its patented direct fuel injection technology (FlexDI) and its engine controller (FlexECU). These provide the following benefits over competitors:

- The in-house electronic engine management system optimises the combustion process, allowing for higher reliability and faster start times; and
- The very fine atomisation of fuel (8 microns vs. others around 120 micron), results in better vaporisation of fuel and improved fuel efficiency (up to 40% claimed), leading to longer flight times.

OEC has previously contested a breach of its patents, and as recently as March 2020, settled a patent litigation claim against Mercedes and Bosch for $3m. In our opinion, patent protection of its I.P. gives OEC a competitive advantage that is expected to last for a long time.

OEC's modular design meets market expectations of increased adaptability of each engine

OEC also has a modular design, that allows for inter-changeability of key components:

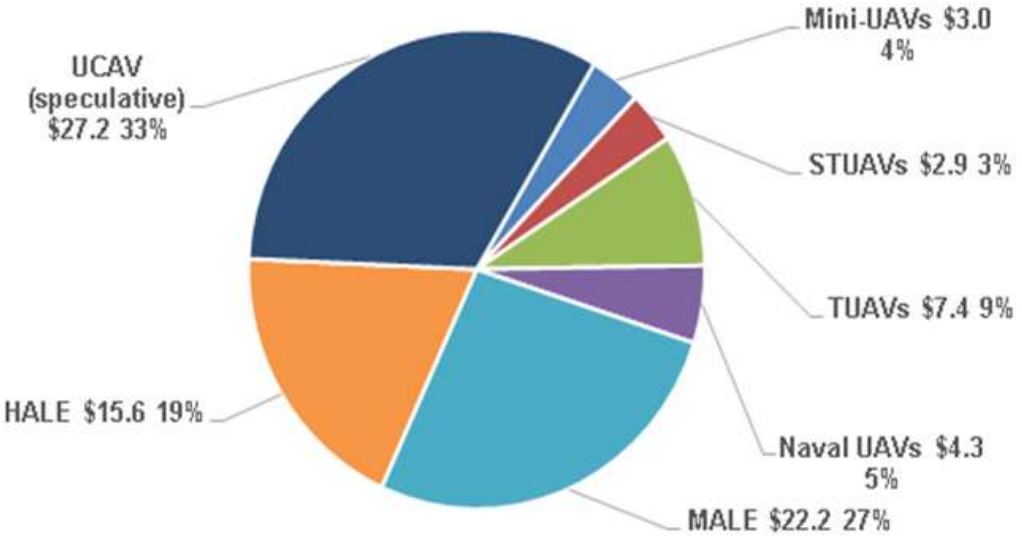
- Variable sized fuel tanks (longer or more efficient flights, depending on the need);
- Variable sized fuselage, allowing for different sized payloads; and
- Larger or smaller motors (a trade of time in the air, vs speed and elevation).

This modular approach means that one design is more adaptable and able to service a greater number of applications and it also helps is meet customer expectations.

POTENTIAL MARKET AND SIZE

A google search of TUAV's reveals a host of expert reports available. Our search indicated that the military or tactical UAV's segment is expected to have the highest growth in the medium term, with 19-20% CAGR expected by several experts over the next 3-5 years.

Figure 2: UAV US$bn production value 2017-2026 by TUAV category



Source: Teal Group

Figure 2 breaks down expected spend by size and category of TUAV. Insitu's products sits in the STUAV, and Naval UAV groupings (US$7.2bn in total over ten years). Textron product also sits in the larger TUAV category, as defined by Teal Group.

We estimate that the potential revenue OEC can achieve is $150-$200m in the medium term

Based on the Teal Group forecasts for the product classes that OEC can sell into, the overall market is US$14.6bn or A$24bn over a ten-year period. Assuming the propulsion system sale price represents 15-25% of the final TUAV cost, then OEC's addressable market is ~$0.4-$0.6bn pa. OEC has low penetration into the larger TUAV models incorporated into its addressable market and after allowing for competitors retaining sales, we estimate the potential maximum sales for OEC in the medium term would appear to be capped at ~A$150-200m pa, assuming it had all the sales to Insitu and a larger share of sales to Textron. Other longer-term military initiatives should see this increase over time.

Drivers

SECTOR GROWTH

Several industry experts are predicting 19-20% CAGR over the medium term for TUAV. If OEC can also make inroads on market share, it potentially is a very high growth company

We are in an US election year and President Trump has been fuelling tension between the US and China. There are also tensions in the South China Sea and in the Middle East with Iran. In our opinion, the current political situation probably leads to an increase in spending on surveillance systems such as TUAV's.

As announced by Austal, the US sees spending on defence as a critical industry and the industry continues to assemble products for the US DoD during the COVID-19 shutdown. Several industry experts are guiding for spending on TUAV's to grow around 20% CAGR, a significant organic growth rate.

Insitu and Textron are able to sell their UAV products globally (with a few exceptions). The US is seen as the leader in defence, and potentially can continue to grow market share.

The US DoD has commenced a program to replace the Textron built Shadow TUAV with a new range of TUAV's called the Future Tactical Unmanned Aerial System (FTUAS). Note, OEC does not currently supply engine parts for the Shadow, it supplies parts for the smaller Textron built Areosonde.

Four manufacturers are competing (including Textron) and we expect OEC to align with one or more bidders to provide the propulsion system. Details on the size of the program is not available yet, however we expect it would be significant. Evaluation to decide the final winner is still several years away. The FTUAS program is for larger TUAV's than what OEC currently supplies into, potentially broadening the market available to OEC.

INCREASED RANGE OF ENGINES

Figure 3: Forecast timeframe for additional engines to be in production with Insitu

On contracted engine volumes with Insitu alone, OEC can potentially increase its revenue ~7x from its FY19 base of $15m

$m	Est. Engine Start Date	FY20	FY21	FY22	FY23	FY24	FY25
Engine 1 Contribution	Q4 FY18	20.0	20.0	20.0	20.0	20.0	20.0
Engine 2 Contribution	Q3 FY20	7.0	18.0	20.0	20.0	20.0	20.0
Engine 3 Contribution	Q1 FY22			12.0	18.0	20.0	20.0
Engine 4 Contribution	Q3 FY23				7.0	18.0	20.0
Engine 5 Contribution	Q1 FY25						15.0
Textron and Other		2.5	2.5	3.0	4.0	4.0	5.0
Total Operating Revenue		**29.5**	**40.5**	**55.0**	**69.0**	**82.0**	**100.0**

Source: PAC Partners

The first engine covered by the Insitu agreement commenced production in Q4 FY18. This engine is used in the ScanEagle 2. The 2nd engine came into production in Jan 2020. This engine is used in the Integrator TUAV (larger in size). Engine three is expected to be used in the Scan Eagle 1.

With each engine guided as providing up to A$20m of revenue each, OEC has a roadmap to ~$100m of revenue by FY25. As more engines are rolled out, the time frame required for each new engine could reduce, leading to a potential beat of our timeframes forecast.

Insitu's sales is the key factor as to whether the guided revenue is missed or surpassed

The $20m per engine is likely to be an over simplification, but in aggregate sales could be ~$100m pa. Factors that influence this are:

- The A$; and
- The sales that Insitu is able to generate with its customers, which could see revenue lower or higher than guided.

The length of time to design, develop and test each engine highlights the barriers to entry of new suppliers. The switch to OEC being the primary supplier by Insitu for the two engines in production also highlights the level of comfort that Insitu has with OEC.

ADDITIONAL CUSTOMERS

The announcement that OEC has signed an MOU for the design and supply of a new engine to a Singaporean defence contractor adds another revenue source. Initially only design revenue is procured and the evaluation process ensures that this customer is unlikely to be meaningful for 2-3 years; however, it should broaden the range of TUAV's OEC can sell into.

Textron could be OEC's next growth leg, not factored in

If our assumption that the Textron long term parts agreement is close to expiry is correct, OEC is well positioned to sell more product to Textron. OEC's product is already proven in terms of reliability and technological advantages. The time frame required to increase sales to Textron is likely to be considerably less than to the Singapore customer. We estimate that currently sales to Textron are ~$2.5m pa. We forecast modest increases from FY22, though note that if OEC were to move to an engine supplier agreement (from a parts supplier), the step up in revenue could be material (not factored into our forecasts).

SCALABLE OPERATIONS

OEC is a manufacturing business, which means its EBITDA margins are likely to increase with scale. Whilst revenue growth could be impressive, EBITDA growth should be even more so

OEC is a relatively high fixed cost business, we estimate it currently has fixed costs of ~$7m. We expect that EBITDA growth should be significantly higher than revenue growth as it leverages its fixed cost base.

Figure 4 is illustrative only. It assumes at a 30% GP margin (below our medium-term expectations) a starting fixed cost base of $7m, with fixed costs increasing at only 25% of the rate of revenue increase. Figure 4 highlights that whilst EBITDA is negative from one engine, its growth is expediential with the addition of each additional engine. Figure 4 maybe not that dissimilar to what occurs at OEC in the medium term.

Figure 4: Annualised 1H20 fixed costs on different revenue assumptions

Revenue	**20.0**	**40.0**	**60.0**	**80.0**	**100.0**
Revenue growth %		*100%*	*50%*	*33%*	*25%*
Estimated GP Margin	30%	30%	30%	30%	30%
Gross Profit	**6.0**	**12.0**	**18.0**	**24.0**	**30.0**
1H20 annualised fixed costs *					
Estimated Indirect Labour	(2.5)	(3.1)	(3.5)	(3.8)	(4.0)
Occupancy Costs	(0.4)	(0.6)	(0.6)	(0.7)	(0.7)
Travel	(0.6)	(0.7)	(0.8)	(0.9)	(0.9)
Communications	(1.0)	(1.2)	(1.4)	(1.5)	(1.6)
Patent, Insurance and listing expenses	(1.5)	(1.9)	(2.1)	(2.3)	(2.5)
Unallocated costs	(1.0)	(1.3)	(1.4)	(1.5)	(1.6)
Total Fixed Costs	**(7.0)**	**(8.8)**	**(9.9)**	**(10.7)**	**(11.3)**
EBITDA	**(1.0)**	**3.2**	**8.1**	**13.3**	**18.7**
EBITDA margin %	***-5.0%***	***8.1%***	***13.6%***	***16.7%***	***18.7%***

**Assumption that fixed costs grow at 25% of revenue growth*

Source: OEC financials and PAC Partner estimates

Assuming the GP margin can also expand a small amount due to scale (and assuming no sell price declines), the EBITDA margin can expand even further than forecast in Figure 4. The high visibility of revenue growth makes the scalability of OEC its most attractive investment characteristic, in our opinion.

Our understanding is that the build capacity of the US and Australian operations is $60-70m of revenue, implying there would be a step up in costs at the $60m mark not factored into Figure 4.

RE-RATING POTENTIAL

High growth often leads to a re-rating. OEC peers trade on multiples higher than the market due to the sector they are exposed to. If OEC delivers, it could see large share price increases from growth and re-rating

We see OEC as a turnaround story. As investors start to look for stocks that have little impact from COVID-19, we believe OEC will screen well. We are already seeing an improvement in share price in the past week. During FY19, OEC traded between $0.28-$0.40/share. When the 1H20 results were announced, the share price spiked to $0.67/share. With the market decline it has fallen to $0.50/share currently, only down 25% from its recent high, less than many other small cap industrials.

Some fund managers are likely to want to see a strong 2H20 first before investing. OEC has overpromised and underdelivered on multiple occasions in the past. The market cap today indicates some investors are already starting to price in future growth. We are expecting an improved 2H20, which potentially could see the stock re-rate. The additional of a second engine allows for material revenue growth, particularly in FY21 as it gets a full year of sales of two engines.

The industry that OEC operates in is also one of the very high growth industries that in previous times investors were prepared to pay high multiples of revenue. OEC is expected to have positive EBITDA from FY20, though probably not material until FY21. Assuming no production hiccups, OEC should deliver very high EBITDA growth and hence a multiple re-rating based off expected future earnings 1-2 year out could occur.

LOWER A$

OEC sells engines in US$. Whilst the A$ impact should be less from the US operations; it does get the conversion benefit back to A$ when consolidating the accounts.

The Australian operations are likely to be sourcing many components in US$, however labour costs and some components are likely to be sourced in A$. With the decline of the A$ from around $0.70 to $0.62, we expect this should assist with margins in FY20 and FY21.

Details on how to quantify the extent of this benefit is scant, hence we point out that this is a near term positive not factored into our modelling.

Financials

PROFIT AND LOSS

OEC has essentially one division, with two locations. Revenue growth has been sporadic, with FY19 revenue lower than FY18 due to a change in the supply agreement with Insitu (longer term positive) and supply chain issues impacting.

Potential delays for new engines and slower than expected ramp up remain the key risk to our revenue forecasts

The way we have approached forecasting OEC is to estimate the timing of additional engines coming into production with Insitu and assuming each generates ~$20m in revenue. We also factor in revenue from Textron, with some growth commencing from FY22.

We do not have visibility on gross profit margins and they could be lower than we forecast, hence our high forecast risk caveat

We estimate a long-term GP margin of 35%, though only 25% in FY20 (low GP margin in 1H20 as the US operations geared up for first production). Due to OEC not separating indirect and direct labour, it is not possible to calculate historical gross profit results. We forecast in-direct labour costs of $2.2m for FY20 and use this to estimate previous gross profit results. We forecast fixed costs and increase them at a rate lower than revenue growth.

We highlight that OEC is very leveraged to revenue growth, which has the potential to both disappoint or surprise to the upside. The forecast risk at OEC is higher than most companies, due to low visibility on gross profit, but much lower than a start-up due to high revenue visibility. In our opinion, manufacturing businesses with IP can generate gross profit margins of 40-50%. With not much historical data to guide us, we have erred on the side of caution and factored in at long term gross profit margin of 35%.

Figure 5: OEC Profit and Loss

($m)	FY18A	FY19A	FY20F	FY21F	FY22F	CAGR FY18-22	1H20A	2H20F
Australia	20.8	14.5	22.5	22.6	23.2	3%	10.6	11.9
US	0.0	0.5	7.0	18.0	32.0	n/m	0.8	6.2
Other Revenue	2.0	2.1	0.7	0.0	0.0		0.8	(0.1)
Total revenue	**22.8**	**17.2**	**30.2**	**40.6**	**55.2**	**25%**	**12.2**	**18.0**
% change (on pcp)	*36%*	*-25%*	*76%*	*34%*	*36%*			*48%*
Gross Profit	**9.3**	**4.1**	**8.1**	**13.0**	**18.8**	**19%**	**1.1**	**7.0**
GP Margin %	*40.9%*	*24.0%*	*26.8%*	*32.1%*	*34.0%*		*9.2%*	*38.7%*
Fixed Costs	(6.5)	(7.3)	(6.9)	(7.7)	(8.5)		(2.2)	(4.7)
EBITDA	**2.8**	**(3.2)**	**1.2**	**5.3**	**10.3**	**38%**	**(1.1)**	**2.3**
Depreciation & Amort.	(0.5)	(1.0)	(1.8)	(1.8)	(2.2)	42%	(1.0)	(0.8)
Total EBIT	**2.3**	**(4.2)**	**(0.7)**	**3.5**	**8.1**	**38%**	**(2.1)**	**1.4**
Net Interest	(0.5)	(0.4)	(0.6)	(0.7)	(0.7)		(0.4)	(0.2)
Underlying profit before tax	1.7	(4.6)	(1.3)	2.8	7.4	44%	(2.5)	1.3
Tax	(0.0)	0.0	0.4	(0.8)	(2.2)		0.0	0.4
Abnormals	0.5	(1.4)	0.0	0.0	0.0		0.0	0.0
Reported NPAT	**2.2**	**(5.9)**	**(0.9)**	**2.0**	**5.2**	**24%**	**(2.5)**	**1.6**
Normalised NPAT	**1.7**	**(4.5)**	**(0.9)**	**2.0**	**5.2**	**32%**	**(2.5)**	**1.6**
% change (on pcp)	*-125%*	*-360%*	*80%*	*-321%*	*165%*			
Normalised EPS (cps)	**2.2**	**(5.3)**	**(1.0)**	**2.3**	**6.1**	**-205%**		

Source: OEC and PAC Partners

We use FY18 numbers to calculate CAGR, as the negative numbers in FY19 distort this measurement. We forecast revenue growth of 27% CAGR, which is impressive.

The step up in depreciation is due to adoption of the accounting for leases standard AASB16.

CASHFLOW

Figure 6 shows historical and forecast cashflow. FY18 cashflow was impacted by large changes in receivables and payables, though they reversed in FY19, leading to large swings in operating cashflow.

We highlight that FY20 cashflow is likely to be poor due to a large inventory build, which may turn out to be fortuitist in the current climate

1H20 cashflow was impacted by a $5m build in inventory and this is the main driver in our negative operating cashflow forecast for FY20. Given the potential for supply chain disruption in the current half, the inventory build appears timely and is expected to decline as more steady state production is achieved.

Figure 6: OEC Cashflow FY18 to FY23F

($m)	FY18A	FY19A	FY20F	FY21F	FY22F	1H20A
EBITDA	2.8	(3.2)	1.2	5.3	10.3	(1.1)
Operating Cashflow	**(8.8)**	**1.8**	**(2.8)**	**3.2**	**8.3**	**(3.4)**
Maintenance Cap-ex	(1.3)	(3.0)	(0.3)	(0.3)	(0.3)	(0.3)
Expansion Cap-Ex	2.9	(2.3)	2.0	(2.0)	(3.0)	0.0
Dividends	0.0	0.0	0.0	0.0	0.0	0.0
Free Cash Flow	**(7.2)**	**(3.5)**	**(1.1)**	**0.9**	**5.0**	**(3.7)**
Debt movement/Other	(0.9)	(0.1)	0.0	0.0	0.0	2.2
Net cashflow	**(8.0)**	**(3.6)**	**(1.1)**	**0.9**	**5.0**	**(1.5)**

Source: OEC and PAC Partners

We expect that as OEC moves to more steady state production of two engines, working capital swings should moderate.

We include the $3m patent litigation settlement from Mercedes and Bosch in FY20.

We assume $0.3m of maintenance capex is required to maintain OEC's operations. We forecast $3m of expansion capex is required for each new engine brought into production (the 2nd engine capex was incurred in FY19).

OEC has potential for working capital reductions due to lengthy debtor days, however it may also look to continue to hold high stock levels to reduce supply chain hiccups, which could impact working capital.

BALANCE SHEET

Figure 7: OEC Balance Sheet

($m)	FY18A	FY19A	1H20	FY20F	FY21F	FY22F	1H20
Cash	9.9	7.5	5.7	6.4	7.3	12.3	5.7
Receivables	13.7	7.1	6.9	11.2	14.2	17.1	6.9
Inventory	2.2	6.7	11.5	9.4	10.3	11.3	11.5
Property Plan & Equip	2.2	4.5	4.1	4.0	4.5	5.6	4.1
Intangibles	0.0	0.9	1.3	0.9	0.9	0.9	1.3
Other Assets	6.6	7.2	8.4	7.5	6.7	4.5	8.4
Total Assets	**34.6**	**33.8**	**37.9**	**39.4**	**44.0**	**51.8**	**37.9**
Payables	1.5	4.1	2.4	6.6	8.1	9.9	2.4
Borrowings	7.8	8.3	10.7	8.3	8.3	8.3	10.7
Provisions	2.2	2.4	3.0	3.4	4.4	5.2	3.0
Other	1.4	3.1	8.1	3.1	3.1	3.1	8.1
Total Liabilities	**12.9**	**17.9**	**24.2**	**21.3**	**23.9**	**26.5**	**24.2**
Total Equity	**21.7**	**16.0**	**13.7**	**18.1**	**20.1**	**25.3**	**13.7**
Gearing (ND/ND+E)	-11%	5%	27%	9%	5%	-19%	27%
Interest Cover (EBIT/Interest)	4.3	-6.8		-1.0	5.1	11.9	
ND/EBITDA	(0.8)	(0.2)		1.6	0.2	(0.4)	
Debtor days	219	150		135	128	113	
Creditor days	25	87		80	73	66	
NTA per share $	0.28	0.19		0.22	0.25	0.31	
Share price / NTA (x)	2.3	3.3		2.9	2.6	2.1	

Source: OEC and PAC Partners

OEC has historically had large swings in working capital. A new CFO was appointed in February, 2020 (David Bonomini). A likely focus of the new CFO is to improve the working capital position of the business.

OEC has high debtor days, we note it could unlock funds if it were to lower its debtor days. OEC indicated that the receipt of monies in advance ($3m of accrued revenue) artificially inflates the debtor days. Monies paid in advance is also likely to impact future operating cashflow conversion.

The FY20 cash balance is positively improved by the $3m patent litigation settlement, received in 2H20.

As to whether OEC needs additional capital to fund its growth, it depends on whether it reduces stock levels and has working capital returned to the business. It may also be in a position to accelerate the design phase of additional engines, which is likely to require working capital.

A capital raise is a possibility, but not a given

The FY20 result will give us a better gauge as to whether the company requires additional equity.

Peer Comparisons

Figure 8: Peer Comparisons

	Share	Mkt	Gearing	EV/EBITDA (x)		PER (x)		Div. Yield (%)		EPS Growth (%)	
Company	Price A$	Cap $m	ND/ND+E	FY20F	FY21F	FY20F	FY21F	FY20F	FY21F	FY20F	FY21F
Aerojet Rocketdyne	68.53	5,383	-74%	10.8x	8.9x	24.2x	22.3x	0.0%	0.0%	27%	8%
AeroVironment, Inc.	92.16	2,190	-33%	21.8x	20.2x	32.8x	30.8x	0.0%	0.0%	47%	6%
Austal Limited	3.10	1,103	-17%	6.2x	5.1x	14.4x	14.0x	2.3%	2.5%	40%	3%
Elbit Systems Ltd.	193.18	8,538	32%	14.7x	13.5x	n/m	n/m	0.0%	0.0%	n/m	n/m
Electro Optic Systems	4.77	539	-39%	15.3x	7.1x	29.8x	19.9x	0.0%	0.0%	5%	50%
HEICO Corporation	130.00	16,332	22%	24.1x	21.6x	37.6x	36.3x	0.2%	0.2%	30%	3%
Kratos Def. & Security	23.54	2,518	26%	23.9x	17.3x	37.4x	25.8x	0.0%	0.0%	298%	45%
Textron Inc.	43.67	9,941	35%	6.1x	5.7x	10.9x	8.8x	0.3%	0.3%	2%	24%
Average				**15.4x**	**12.4x**	**26.7x**	**22.6x**	**0.3%**	**0.4%**	**64%**	**20%**
Orbital Corporation	**0.65**	**50**	**9%**	**44.8x**	**9.7x**	**n/m**	**28.0x**	**0.0%**	**0.0%**	80%	321%
Difference to Peers				**192%**	**-22%**	**-332%**	**24%**	**n/m**	**n/m**	**25%**	**1513%**

Source: CapIQ, Pac Partners estimates

Peers trade at high multiples and are forecast to have very high growth

The key takeaway from peer comparison analysis is that companies leveraged to UAV's trade at high multiples due to the historic and perceived future high growth, even after the market sell off. Consensus is predicting 83% sector eps growth in FY20.

FY20 multiples for OEC are not really that relevant, in our opinion. If our forecasts prove accurate for FY21, then OEC would be trading at a material discount to peers, and even more so in FY22.

FY21 OEC multiples look attractive relative to peers, however this is more the case in FY22, if the 3rd engine with Insitu enters production

Due to its size and high customer concentration risk, we would expect OEC to trade at a discount to the peers in Figure 8, though quantifying that discount is difficult. Should OEC start to hit milestones and deliver on targets, we believe investors will start to focus on revenue and EBITDA several years out, given the high visibility of revenue growth.

Due to the low EBITDA forecast for FY20, we prefer to use DCF valuation at this point in time to value OEC. Post the FY20 result when we have more data on the sales trajectory and costs, we would look to incorporate a multiples valuation, alongside DCF.

TAKEOVER CANDIDATE

If a customer decides it wants access to OEC patents, it should buy OEC

The fact that a company the size of OEC has such a large long-term contract with Insitu is testament to the quality of the product it produces and the strength of its patents. Given the size of OEC's peers, it remains a possibility that as these companies could look to strengthen their supply chain and gain ownership of OEC's patents; OEC could receive a take-over offer.

Key Risks

POSSIBLE SUPPLY INTERRUPTIONS

We see supply chain issues as the biggest risk to OEC, as poor performance in this area is the greatest threat to achieving our growth forecasts, in our opinion

OEC has experienced supply chain issues in the past that have delayed shipment of motors. In an industry with few players, recurring supply issues could tarnish OEC's reputation and open the door to competitors.

In the current COVID-19 scenario, supply of some critical components is beyond the control of OEC. Some suppliers are likely to be in lock down at present. In our opinion, supply interruption is the most significant risk faced by OEC. Regular supply chain issues could result in it losing primary supplier status to Insitu and the re-introduction of shared supply with another propulsion system manufacturer.

CUSTOMER CONCENTRATION

Due to the nature of the industry OEC operates in, it is likely to always have high customer concentration

At the FY19 result, Insitu provided for 80% of the operating revenue. As the contract with Insitu is expected to increase in the near term, the revenue contribution from the single largest client is likely to increase in percentage terms.

Whilst OEC is adding new clients, they are unlikely to be as large as Insitu and will take time to review and adopt OEC product as their preferred engine. Investors in OEC need to accept that high customer concentration is a risk that comes with the stock. Whilst it maintains its technology and performance advantages, this is potentially not as big a risk as it appears.

Insitu is a 100% owned subsidiary of Boeing. Whilst Boeing is US$130bn market cap giant, sales of new planes are likely to be subdued for several years, in our opinion. Whether this has any impact on Insitu is difficult to know (we assume probably not a lot). The biggest risk is that R&D spend could be curtailed, which could slow the acceptance of additional engines from OEC.

NEW ENGINES COULD BE DELAYED

The original guidance of when the 5th engine for Insitu was to be in production is within the quarter that we are in now. The time frame taken to get each engine into production has taken materially longer than OEC first envisaged.

Our forecasts factor in an 18-month period for each engine (consecutively, not concurrent) to come into production. If the time frame is longer, our forecasts could be too bullish.

INCREASED COMPETITION

As UAV's is seen as a high growth sector, OEC is likely to see increased competition in its markets. It is unlikely that cheaper products made for example in China are likely to break into this market due to it being aligned to defence spending in the US and Europe.

The period of time that OEC can maintain its technological and performance advantages over peers, gives it time to establish a market dominant position, that potentially could nullify this risk.

COVID-19 COULD IMPACT DEFENCE SPENDING

It is currently had to quantify if in the long term COVID-19 leads to more or less spending on defence

The impact of COVID-19 on Government spending and OEC's customers is unknown at this point in time. It is possible that demand for new TUAV's could decline as countries may focus less on defence spending and more on financing the economic recovery.

REGULATORY RISK

OEC's primary market is defence and in particularly the US defence services. Defence contracts usually have stipulations around the ownership and origin of supply. Whilst not currently an impediment, future changes to these regulations could impact OEC's ability to supply into the US defence market.

HIGH FORECAST RISK

This risk is the prime reason we have a speculative qualification against our Buy recommendation

OEC is yet to report sufficient information to calculate gross profit and historically EBITDA has had large movements, both up and down. The 1H20 EBITDA result was also a loss. Until we get a read of what the expected gross profit margin is that OEC can consistently deliver, OEC retains a high forecast risk.

FY20 Guidance

OEC has previously missed revenue guidance and project time frames. This is common for a company that is in the early stages of establishing itself in a high barrier to industry such as US Defence.

There appears a very high level of probability that OEC will achieve revenue guidance in FY20

FY20 guidance is for, "Revenue of $25-$35m and full year profitability". Guidance was reiterated in early April. The 1H20 result produced $12.2m of total revenue. Drivers in the 2H include:

- A lower A$; and
- Commencement of sales of the 2nd engine to Insitu (in January).

If you annualise 1H20 revenue, you get to the bottom end of guidance. We believe there is a very high level of probability that OEC will achieve guidance. Guidance is a wide range and in normal circumstances a company would likely to have narrowed the range given we are nearly 10 months into the financial year. In our opinion, this could signal that the company is likely to produce a result at the mid to high point of guidance, and have left a wide range in case COVID-19 has a late impact in Q4 FY20.

We forecast a loss at the NPAT line, should it achieve profitability at this line, it could be a catalyst

In relation to profitability, OEC does not define whether this applies to EBITDA or NPAT. We are forecasting positive EBITDA, but a small loss at the NPAT level for FY20, hence technically it can achieve this element of its FY20 guidance as well. We forecast OEC to achieve revenue at the mid-point of guidance, though we see it as more likely for OEC to beat our revenue forecast vs. miss it.

Potential exists for OEC to positively surprise at the FY20 result, particularly at the revenue line.

Investment view and valuation. Speculative Buy $0.88 Price Target

Due to forecast high growth and OEC being around the breakeven point, DCF appears the most appropriate valuation methodology at this point in time

EV/EBITDA multiples are difficult to use for OEC due to low FY20 EBITDA and potential for high growth in the medium term. As a result, we believe DCF is the best methodology currently to value OEC.

DCF ANALYSIS

Figure 9: DCF assumptions

Beta (x)	1.35	High forecast risk equates to a high Beta
Cost of debt (after tax)	5%	Assumed rate for OEC
Assumed level of debt	5%	Low debt assumed until the operations are more mature
LT growth rate	3.0%	Higher than average due to UAV exposure
WACC	11.3%	High reflecting the risks

Source: PAC Partners estimates

The composition of how we calculate our DCF based valuation and price target of $0.88/share is shown in Figure 10. We note we use a high Beta to factor in risk. As OEC is a growth company, the lion's share of its DCF value is in its terminal value of cashflows.

Figure 10: DCF valuation

Present value of cashflows FY20 to FY29	26
Present value of terminal year cashflow	47
Net Debt at 1H20A	5
Present value of equity	68
Diluted Shares on issue	77
Present value per share	**$0.88**

Source: PAC Partners

A TSR of 36% is impressive and gives some clarity around the risk/reward equation in play with OEC

We forecast a 12-month TSR of 37%. Due to the high risk associated with OEC, we rate it as a Speculative Buy. The 2H20 is an important result in that it will provide details of:

- Sales of the 2nd engine;
- A look at potential GP margins going forward;
- Whether OEC has been able to improve its working capital position; and
- What sort of momentum it has going into FY21 (i.e. if OEC reports towards the top end of its revenue guidance, we would expect its share price to spike).

MANAGEMENT AND BOARD

Board and management experience feels right

We like the balance on the board and the fact it has only four members (low cost). Director Kyle Abbott has US aerospace experience. The Chairman, John Wellborn, provides the longer-term company experience, having held the Chairman position since March 2015 and being involved in developing the strategy to pursue the UAV industry.

Todd Alder was promoted to CEO in August 2017 (from CFO), and has overseen the LTA with Insitu and the building of a manufacturing presence in the US.

Keith Hirschman was appointed Vice President of the US operations in July, 2019. Keith has previously managed UAS programs for the US Army and held roles at Insitu. Having military connected US personnel in management is another important box ticked.

In February 2020, David Bonomini was appointed CFO. David was previously CFO of Compass Group Australia and appears a good appointment.

There appears an appropriate level of diversity, experience and industry associations within the management team and board for OEC to make its mark. See the OEC website or annual report for a biography of the board and management team.

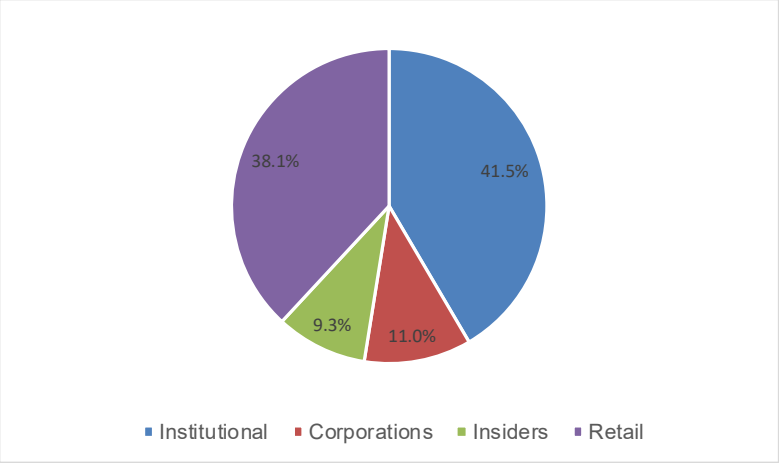
LIQUIDITY AND REGISTER

OEC is relatively illiquid, with $1.3m traded per month or ~$60k per day traded.

OEC has two substantial shareholders that combined own >40% of OEC.

OEC could do with more institutional investors on the register (essentially just two) and one of them owns a large percentage (30%).

Figure 12: Composition of the OEC register



Source: CapIQ

INVESTMENT THESIS, SPECULATIVE BUY, $0.88 P.T.

OEC has promised a lot in the past. We believe the pieces are now in place for it to be very successful, if it delivers

Whilst OEC has tread a rocky path over the years, it has a very large contract that is in the early stages of ramping up and some significant technological advantages over competitors. If OEC performs to its potential, it should be very rewarding for shareholders.

The main risk is that some very large US defence contractors (Insitu and Textron) are putting their eggs in the OEC basket. Should OEC have supply issues, their relationship with their major customers could sour.

Timing is everything and it appears the timing is right for OCE. We recommend investing in OEC, however point out that it has risks. Some of our questions are likely to be answered at the FY20 result

The 2H20 result is a key factor in getting insight into:

- The revenue growth trajectory of OEC now that it is delivering two engines to Insitu;
- What the Gross Profit margin is on higher sales volumes; and
- Whether OEC can improve its working capital position.

The risk reward equation is attractive and if OEC delivers over the life of its LTA and renews it in FY24, the share price in several years time could be multiples of the current share price.

Financial Model

Orbital Corporation			Share Price ($)	0.65
PROFIT & LOSS ($m)	**FY18A**	**FY19A**	**FY20F**	**FY21F**	**FY22F**
Operating Revenue	**20.8**	**15.0**	**29.5**	**40.6**	**55.2**
EBITDA	2.8	(3.2)	1.2	5.3	10.3
Depreciation	(0.5)	(0.9)	(1.8)	(1.8)	(2.2)
Amortisation	0.0	(0.0)	0.0	0.0	0.0
EBIT	**2.3**	**(4.2)**	**(0.7)**	**3.5**	**8.1**
Net Interest	(0.5)	(0.4)	(0.6)	(0.7)	(0.7)
Income tax expense	(0.0)	0.0	0.4	(0.8)	(2.2)
UNPAT pre abnormal	**1.7**	**(4.5)**	**(0.9)**	**2.0**	**5.2**
Abnormal Items	0.5	(1.4)	0.0	0.0	0.0
Reported NPAT	**2.2**	**(5.9)**	**(0.9)**	**2.0**	**5.2**
Normalised NPATA	**1.7**	**(4.5)**	**(0.9)**	**2.0**	**5.2**

BALANCE SHEET ($m)	**FY18A**	**FY19A**	**FY20F**	**FY21F**	**FY22F**
Cash	9.9	7.5	6.4	7.3	12.3
PP&E	2.2	4.5	4.0	4.5	5.6
Debtors & Inventory	13.7	7.1	11.2	14.2	17.1
Intangibles	0.0	0.9	0.9	0.9	0.9
Other assets	8.8	13.8	16.9	17.0	15.8
Total Assets	**34.6**	**33.8**	**39.4**	**44.0**	**51.8**
Borrowings	7.8	8.3	8.3	8.3	8.3
Trade Creditors	1.5	4.1	6.6	8.1	9.9
Other Liabilities	3.6	5.5	6.4	7.5	8.3
Total Liabilities	**12.9**	**17.9**	**21.3**	**23.9**	**26.5**
Shareholder Equity	**21.7**	**16.0**	**18.1**	**20.1**	**25.3**

CASHFLOW ($m)	**FY18A**	**FY19A**	**FY20F**	**FY21F**	**FY22F**
Operating EBITDA	**2.8**	**(3.2)**	**1.2**	**5.3**	**10.3**
Interest & Tax Paid	0.2	0.2	(0.6)	(0.7)	(0.7)
Working Cap.	(11.8)	4.8	(3.3)	(1.4)	(1.3)
Operating CF	**(8.8)**	**1.8**	**(2.8)**	**3.2**	**8.3**
Maintenance Capex	(1.3)	(3.0)	(0.3)	(0.3)	(0.3)
Expansion Capex	2.9	(2.3)	2.0	(2.0)	(3.0)
Free Cashflow (FCF)	**(7.2)**	**(3.5)**	**(1.1)**	**0.9**	**5.0**
Ord & Pref Dividends	0.0	0.0	0.0	0.0	0.0
Net Other	(0.9)	(0.1)	0.0	0.0	0.0
Net Cashflow	**(8.0)**	**(3.6)**	**(1.1)**	**0.9**	**5.0**

DIVISIONAL P&L ($m)	**FY18A**	**FY19A**	**FY20F**	**FY21F**	**FY22F**
Australia	20.8	14.5	22.5	22.6	23.2
US	0.0	0.5	7.0	18.0	32.0
Other	2.0	2.1	0.7	0.0	0.0
Total Revenue	**22.8**	**17.2**	**30.2**	**40.6**	**55.2**

DIRECTORS	**%**		**%**
John Wellborn	1.1%	Kyle Abbott	0.0%
Todd Adler	0.5%	Steve Gallagher	0.1%
		Total	**1.7%**

Mkt Cap: ($m)	50		Speculative Buy
KEY RATIOS	**FY18A**	**FY19A**	**FY20F**	**FY21F**	**FY22F**
EBITDA Margin (%)	13.4%	-21.4%	3.9%	13.0%	18.6%
EBIT Margin (%)	10.9%	-27.7%	-2.2%	8.5%	14.7%
NPAT Margin (%)	10.6%	-39.4%	-3.0%	4.8%	9.4%
ROE (%) y/e	8.0%	-28.4%	-4.9%	9.8%	20.6%
ROA (%) y/e	9.2%	-15.8%	-2.0%	9.5%	20.5%
ROIC (%) Av.	14.8%	-22.7%	-3.5%	16.5%	36.9%
NTA per share ($)	0.28	0.19	0.22	0.25	0.31
Eff Tax Rate (%)	0.1%	0.8%	30.0%	30.0%	30.0%
EBIT Interest Cover (x)	4.3	(6.8)	(1.0)	5.1	11.9
Gearing ND/ND+E (%)	(11.1%)	4.7%	9.3%	4.6%	(18.8%)
OPCF / EBITDA (%)	(314%)	(55%)	(240%)	61%	81%

VALUATION METRICS	**FY18A**	**FY19A**	**FY20F**	**FY21F**	**FY22F**
Dil. Normalised EPS (c)	2.2	-5.3	-1.0	2.3	6.1
Dil. Reported EPS (c)	2.9	-7.0	-1.0	2.3	6.1
Dil. Normalised PE (x)	**28.8**	**-12.2**	**-61.9**	**28.0**	**10.5**
Dil. Reported PE (x)	**22.5**	**-9.3**	**-61.9**	**28.0**	**10.5**
Enterprise Value ($m)	48	51	52	51	46
EV / EBITDA (x)	**17.1**	**-15.8**	**44.8**	**9.7**	**4.5**
EV / EBITA (x)	**21.1**	**-12.3**	**-79.8**	**14.7**	**5.7**
EV / EBIT (x)	**21.1**	**-12.2**	**-79.8**	**14.7**	**5.7**
Price / NTA (x)	2.3	3.3	2.9	2.6	2.1
DPS (c)	0.0	0.0	0.0	0.0	0.0
Dividend Yield (%)	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
Franking (%)	0%	0%	0%	0%	0%
Payout Ratio (%)	0%	0%	0%	0%	0%
Free Cash / Share (cps)	-9.2	-4.1	(1.3)	1.0	5.8
Price / FCF PS (x)	-7.0	-15.7	(51.1)	61.7	11.0
Net Debt / EBITDA (x)	(0.8)	(0.2)	1.6	0.2	(0.4)

GROWTH PROFILE (YoY)	**FY18A**	**FY19A**	**FY20F**	**FY21F**	**FY22F**
Sales ($m)	17%	-28%	96%	38%	36%
EBITDA ($m)	-147%	-215%	-136%	356%	94%
EBIT ($m)	-135%	-284%	-84%	-634%	134%
Adj. NPAT ($m)	-125%	-360%	-80%	-321%	165%
Adj. EPS (c)	-127%	-336%	80%	321%	165%
DPS (c)	0%	0%	0%	0%	0%

DCF VALUATION			
PV of Cashflows FY20-29	26	Risk Free Rate	5.0%
PV of Term Year Cashflow	47	Equity Risk Premium	5.0%
Other	0	Equity Beta (x)	1.35
Net Debt at 1H20A	(5)	Cost of Equity	11.8%
PV of Equity	68	WACC	11.3%
PV of Equity per share	**$ 0.88**	Terminal Growth	3.0%

SUBSTANTIAL HOLDERS	**%**		**%**
ICM Limited	29.9%	First Sentier Investors	10.3%

CONTACT INFORMATION

CORPORATE FINANCE		RESEARCH		DEALING	
CRAIG STRANGER ***Managing Director*** cstranger@pacpartners.com.au	*03 9114 7405*	**PAUL JENSZ** ***Executive Director, Research*** pjensz@pacpartners.com.au	*03 9114 7444*	**JAMES WILSON** ***Executive Director, Institutional Sales,– Sydney*** jwilson@pacpartners.com.au	*02 9134 9111*
SEAN KENNEDY ***Corporate Finance*** skennedy@pacpartners.com.au	*03 9114 7405*	**HEATH ANDREWS** ***Senior Analyst*** handrews@pacpartners.com.au	*03 9114 7415*	**PHIL CAWOOD** ***Institutional Sales – Sydney*** pcawood@pacpartners.com.au	*02 9134 9122*
ANTHONY STANI ***Corporate Finance*** astani@pacpartners.com.au	*03 9114 7401*	**ANDREW SHEARER** ***Senior Analyst*** ashearer@pacpartners.com.au	*03 9114 7411*	**MARK PASHLEY** ***Head of Sale Trading –*** *Sydney* mpashley@pacpartners.com.au	*02 9134 9177*
CHARLES REED ***Corporate Finance*** creed@pacpartners.com.au	*03 9114 7406*	**MARK YARWOOD** ***Senior Analyst*** myarwood@pacpartners.com.au	*02 9134 9188*	**SEBASTIAN JURD** ***Senior Advisor – Sydney*** sjurd@pacpartners.com.au	*02 9134 9155*
BROOKE PICKEN ***COO*** bpicken@pacpartners.com.au	*03 9114 7402*	**ALEX SMITH** ***Analyst*** asmith@pacpartners.com.au	*03 9114 7408*	**RYAN GALE** ***Advisor – Melbourne*** rgale@pacpartners.com.au	*03 8633 9833*
ROGER CHEN ***Analyst*** rchen@pacpartners.com.au	*+852 2544 1408*	**LAWRENCE GRECH** ***Senior Consultant Analyst*** lgrech@pacpartners.com.au	*0404 052 913*	**TOM FAIRCHILD** ***Corporate Sales – Melbourne*** tfairchild@pacpartners.com.au	*03 8633 9867*
SYDNEY Kyle House, 27 – 31 Macquarie Place, Sydney **+61 2 9233 9600**		**PHIL CARTER** ***Consultant Analyst*** pcarter@pacpartners.com.au		**IAN LEETE** ***Corporate Sales – Sydney*** ileete@pacpartners.com.au	*02 9134 9144*
MELBOURNE (Head Office) Level 10, 330 Collins Street, Melbourne **+61 3 8633 9831**		**TOM WAITE** ***Junior Analyst*** twaite@pacpartners.com.au	*03 9114 7400*	**DANIEL GADALLA** ***Operator – Melbourne*** dgadalla@pacpartners.com.au	*03 8633 9834*
Hong Kong Upper Ground Floor, 148 Queens Road Central **+0011 852 041169 7866**					

RECOMMENDATION CRITERIA

Investment View

PAC Partners Investment View is based on an absolute 1-year total return equal to capital appreciation plus yield.

A Speculative recommendation is when a company has limited experience from which to derive a fundamental investment view.

Buy	Hold	Sell
>20%	20% – 5%	<5%

Risk Rating

PAC Partners has a four tier Risk Rating System consisting of: Very High, High, Medium and Low. The Risk Rating is a subjective rating based on: Management Track Record, Forecasting Risk, Industry Risk and Financial Risk including cash flow analysis.

Disclosure of Economic Interests

The views expressed in this research report accurately reflect the personal views of Heath Andrews about the subject issuer and its securities. No part of the analyst's compensation was, is or will be directly or indirectly related to any recommendation or view expressed in this report.

The author or PAC Partners do not Hold an economic interest in the securities covered in this report or other securities issued by the subject issuer which may influence this report:

Disclaimer

PAC Partners Securities Pty Ltd. ("**PAC Partners**", "**PAC**" or "**PPS"**) is a Corporate Authorised Representative of PAC Asset Management Pty Ltd holder of an Australian Financial Services Licence (AFSL No. 335 374).

The information contained in this report is provided by PAC Partners to Wholesale Investors only. **Retail investor and third party recipients should not rely, directly or indirectly, on this report.** Users of this research report should not act on any content or recommendation without first seeking professional advice. Whilst the report has been prepared with all reasonable care from sources which we believe are reliable, no responsibility or liability is accepted by PAC Partners, for any errors or omissions or misstatements however caused. Any opinions, forecasts or recommendations reflect our judgement and assumptions at the date of publication or broadcast and may change without notice. This report is not and should not be construed as an offer to sell or the solicitation of an offer to purchase or subscribe for any investment. This publication contains general securities advice. In preparing our Content it is not possible to take into consideration the investment objectives, financial situation or particular needs of any individual user. Access of this report does not create a client relationship between PAC Partners and the user. Before making an investment decision on the basis of this advice, you need to consider, with or without the assistance of a securities adviser, whether the advice in this publication is appropriate in light of your particular investment needs, objectives and financial situation. PAC and its associates within the meaning of the Corporations Act may hold securities in the companies referred to in this publication. PAC believes that the advice and information herein is accurate and reliable, but no warranties of accuracy, reliability or completeness are given (except insofar as liability under any statute cannot be excluded). No responsibility for any errors or omissions or any negligence is accepted by PAC or any of its directors, employees or agents. Any content is not for public circulation or reproduction, whether in whole or in part and is not to be disclosed to any person other than the intended user, without the prior written consent of PAC Partners.

Disclosure of Corporate Involvement

PAC Partners does not own securities of the Company described in this report. PAC Partners associates do not own securities of the Company described in this report. PAC Partners does and seeks to do business with companies covered in the research. PAC may receive commissions from dealing in securities associated with the Company. As a result, investors should be aware that PAC Partners may have a conflict of interest that could affect the objectivity of this report.

For more information about PAC Partners please visit www.pacpartners.com.au