9 July 2020

Electro Optic Systems (EOS) BUY Share Price: A$6.00

A laser-like focus on the blue sky — Target Price: A$6.86

We remain confident that EOS has the requisite technologies, R&D capabilities and operating footprint to create and/or capitalise on large end-markets. Following a review of our earnings forecasts and investment thesis, we have increased our target price to $6.86ps (from $4.52ps) and reiterate our Buy rating.

CY20 guidance in the context of COVID-19

- In late May 2020, EOS reiterated its CY20 guidance from mid-April, which was revised lower due to COVID-19. Key data points include revenue of $230m, EBIT of $27m, and a $100m reduction in cash receipts.
- The 'COVID-19' guidance reflects (i) deferral of ~$70m of sales and some contract tenders to CY21, with the order book unaffected, (ii) reduced productivity, and (iii) product delivery constraints reducing cash conversion.

Earnings forecast revisions

- We have cut our net profit forecast by 16% in CY20 and increased CY21 by 24%. Our forecast revisions are primarily a reflection of COVID-19 impacts in CY20, and their residual effects in CY21 and CY22.
- Our CY21 and CY22 forecasts now also incorporate the recently announced Australian Defence contract (the details of which remain subject to final negotiations), and assume a marked improvement in Op. CF in CY21.

Defence is still the main game

- We expect Defence to remain the key driver for EOS (~96% of CY20 pre-tax profit) for the foreseeable future. This reflects the positive long-term outlook for EOS's addressable market and its competitive position therein.
- There are three key drivers to EOS's Defence business. These are (i) product performance and innovation, (ii) production capacity and efficiency, and (iii) market reach and after-market product support capabilities.

Space/Communications the next frontier for growth

- While Space is currently only marginally profitable, it is a hub for EOS's broader technology suite and offers significant blue-sky earnings potential, reflecting the performance benefits of its technology in a large market.
- One beneficiary of Space's technology hub is the recently formed Communications division, which following two strategic acquisitions can now offer hybrid optical-microwave solutions for space communications.

Reiterate Buy and increase target price to $6.86ps

- With market-leading laser technology and best-in-class engineering capabilities, we expect EOS to be a key participant in the next wave of technology-focused spending across defence and space communications.

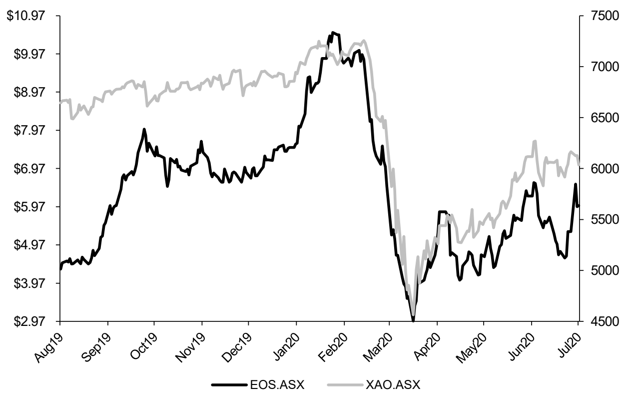
Company Data

Shares – ordinary (M)	141.2
Dilution (M)	3.4
Total (fully diluted) (M)	144.7
Market capitalisation ($M)	847.3
12 month low/high ($)	2.95 - 10.8
Average monthly turnover ($M)	124.2
GICS Industry	Aerospace & Defense

Financial Summary (fully diluted/normalised)

Year end Dec	2018A	2019A	2020F	2021F	2022F
Revenue ($M)	86.3	165.4	233.6	280.5	245.8
Costs ($M)	71.4	139.5	201.8	232.8	204.9
EBITDA ($M)	15.0	25.9	31.8	47.7	40.8
NPAT ($M)	15.1	18.1	21.8	32.1	26.8
EPS (¢ps)	15.9	17.6	17.1	22.2	18.7
EPS Growth (%)	0.0	11.0	-3.2	30.3	-15.9
PER (x)	37.8	34.1	35.2	27.0	32.1
Free Cashflow ($M)	-18.9	-38.4	-88.7	167.9	38.4
FCFPS (¢ps)	-19.9	-39.2	-71.1	114.5	25.1
PFCFPS (x)	-30.2	-15.3	-8.4	5.2	23.9
Enterprise Value ($M)	541.2	614.1	771.3	611.6	573.3
EV / EBITDA (x)	36.2	23.7	24.2	12.8	14.0
Payout ratio (%)	0.0	0.0	0.0	0.0	0.0
Dividends (¢ps)	0.0	0.0	0.0	0.0	0.0
Yield (%)	0.0	0.0	0.0	0.0	0.0
Franking (%)	0.0	0.0	0.0	0.0	0.0

EOS – performance over one year



Disclosure and Disclaimer
This report must be read with the disclosure and disclaimer on the final page of this document.

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PETRA CAPITAL

9 July 2020

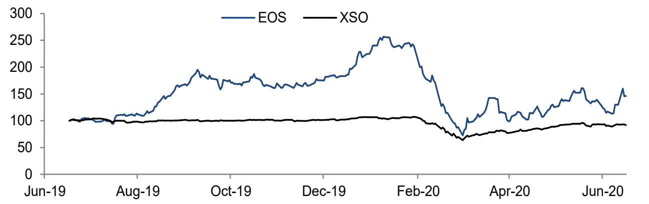
Analysis

Electro Optic Systems

Year End December

MARKET DATA		
Recommendation		BUY
Price	**$**	**6.00**
Price target (12-month)	**$**	**6.86**
52 week high / low	$	2.95 - 10.8
Market capitalisation	**$m**	**847.3**
Shares on issue (basic)	no.	141.2
Performance rights	no.	3.4
Other equity	no.	0.0
Shares on issue (diluted)	no.	144.7

12-MONTH SHARE PRICE PERFORMANCE



INVESTMENT FUNDAMENTALS		2018A	2019A	2020F	2021F	2022F
Reported net profit	$m	15.1	18.1	21.8	32.1	26.8
Normalised net profit	**$m**	**15.1**	**18.1**	**21.8**	**32.1**	**26.8**
Reported EPS (diluted)	¢	15.9	17.6	17.1	22.2	18.7
Normalised EPS (diluted)	**¢**	**15.9**	**17.6**	**17.1**	**22.2**	**18.7**
....Growth	%	0.0	11.0	(3.2)	30.3	(15.9)
Normalised diluted PER	**x**	**37.8**	**34.1**	**35.2**	**27.0**	**32.1**
Adjusted Op. CF per share	¢	(16.5)	(34.7)	(69.0)	117.0	27.6
Adjusted FCF per share	¢	(19.9)	(39.2)	(71.1)	114.5	25.1
Price to free cash flow per share	**x**	**(30.2)**	**(15.3)**	**(8.4)**	**5.2**	**23.9**
Free cash flow yield	%	**(3.3)**	**(6.5)**	**(11.8)**	**19.1**	**4.2**
Dividend per share	**¢**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Payout ratio	%	0.0	0.0	0.0	0.0	0.0
Yield	%	0.0	0.0	0.0	0.0	0.0
Franking	%	0.0	0.0	0.0	0.0	0.0
Enterprise value	**$m**	**541.2**	**614.1**	**771.3**	**611.6**	**573.3**
EV/EBITDA	x	36.2	23.7	24.2	12.8	14.0
EV/EBIT	x	37.8	28.2	28.9	14.8	16.7
Price to book (NAV)	x	5.7	2.8	2.1	2.0	1.9
Price to NTA	x	5.7	3.3	2.4	2.2	2.1

KEY RATIOS		2018A	2019A	2020F	2021F	2022F
EBITDA margin	%	17.3	15.7	13.6	17.0	16.6
EBIT margin	%	16.6	13.2	11.4	14.7	14.0
Underlying net profit margin	%	17.5	10.9	9.3	11.5	10.9
Return on average equity	%	15.6	11.1	7.0	7.8	6.1
Return on average assets	%	11.1	9.8	6.6	7.8	6.1
Net tangible assets per share	¢	106.1	181.8	248.6	271.9	286.1
Net debt /(cash)	$m	(40.5)	(69.5)	(96.6)	(256.3)	(294.6)
Interest cover (EBIT / net interest)	x	n/a	n/a	n/a	n/a	n/a
Leverage (net debt / EBITDA)	x	n/a	n/a	n/a	n/a	n/a
Gearing (net debt / net debt plus equity)	%	n/a	n/a	n/a	n/a	n/a

DUPONT ANALYSIS		2018A	2019A	2020F	2021F	2022F
Net Profit Margin	%	17.5	10.9	9.3	11.5	10.9
Asset Turnover	x	0.7	0.8	0.6	0.5	0.4
Return on Assets	%	11.7	8.3	5.4	6.1	4.8
Financial Leverage	x	1.3	1.3	1.3	1.3	1.3
Return on Equity	**%**	**15.6**	**11.1**	**7.0**	**7.8**	**6.1**

BUSINESS SEGMENTS	2018A	2019A	2020F	2021F	2022F
Revenue	**86.3**	**165.4**	**233.6**	**280.5**	**245.8**
- Defence	85.0	158.5	216.8	251.7	215.7
- Communications	0.0	1.9	11.4	22.7	23.4
- Space	1.4	5.0	5.5	6.1	6.7
Non-sales Income	**7.7**	**0.6**	**0.0**	**0.0**	**0.0**
Pre-tax Profit	**15.1**	**22.0**	**27.3**	**42.9**	**36.9**
- Defence	17.8	22.2	26.2	39.0	32.8
- Communications	0.0	(0.2)	0.9	3.4	3.5
- Space	(2.2)	0.4	0.7	0.9	1.2
- Unallocated costs	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
Pre-tax Profit Margin	**17.5%**	**13.3%**	**11.7%**	**15.3%**	**15.0%**
- Defence	20.9%	14.0%	12.1%	15.5%	15.2%
- Communications	nm	-10.7%	7.5%	15.0%	15.0%
- Space	-156.1%	8.3%	12.5%	15.0%	17.5%

PROFIT AND LOSS		2018A	2019A	2020F	2021F	2022F
Total revenue	$m	86.3	165.4	233.6	280.5	245.8
EBITDA	**$m**	**15.0**	**25.9**	**31.8**	**47.7**	**40.8**
Depreciation & amortisation	$m	0.6	4.1	5.2	6.4	6.5
EBIT	$m	14.3	21.8	26.7	41.3	34.4
Net interest	$m	(0.8)	(0.2)	(0.6)	(1.6)	(2.6)
Non-operating income	$m	0.0	0.0	0.0	0.0	0.0
Pretax Profit	$m	15.1	22.0	27.3	42.9	36.9
Tax expense	$m	0.0	3.9	5.5	10.7	10.2
Minorities	$m	0.0	0.0	0.0	0.0	0.0
Reported NPAT	**$m**	**15.1**	**18.1**	**21.8**	**32.1**	**26.8**
Significant items	$m	0.0	0.0	0.0	0.0	0.0
Underlying NPAT	$m	15.1	18.1	21.8	32.1	26.8

GROWTH PROFILE		2018A	2019A	2020F	2021F	2022F
Operating revenue	%	274.3	91.6	41.2	20.0	(12.4)
EBITDA	%	0.0	73.2	22.8	49.8	(14.3)
EBIT	%	0.0	52.0	22.4	54.8	(16.8)
Operating NPAT	%	0.0	19.7	20.9	47.3	(16.7)
Normalised EPS	%	0.0	11.0	(3.2)	30.3	(15.9)
DPS	%	0.0	0.0	0.0	0.0	0.0

BALANCE SHEET		2018A	2019A	2020F	2021F	2022F
Cash	$m	40.5	77.9	107.0	272.6	308.7
Receivables	$m	26.8	27.1	38.5	46.3	40.6
Inventory	$m	26.5	53.5	116.8	91.1	79.9
Other	$m	12.7	59.5	119.9	23.8	20.9
Current	$m	106.5	217.9	382.2	433.9	450.0
Prop, plant & equip	$m	4.0	8.1	20.8	21.0	21.1
Goodwill	$m	0.0	14.9	14.9	14.9	14.9
Other	$m	18.4	65.5	79.8	82.4	79.2
Non current	$m	22.3	88.5	115.4	118.3	115.2
Total assets	**$m**	**128.9**	**306.4**	**497.7**	**552.2**	**565.2**
Accounts Payable	$m	22.3	37.0	52.6	63.1	55.3
Borrowings	$m	0.0	0.0	0.0	0.0	0.0
Other	$m	10.3	41.7	50.5	62.3	56.4
Total liabilities	**$m**	**32.6**	**78.7**	**103.1**	**125.4**	**111.7**
Net assets	$m	96.3	227.7	394.6	426.7	453.5
Equity	$m	96.4	228.2	395.1	427.3	454.0
Minorities	$m	(0.2)	(0.5)	(0.5)	(0.5)	(0.5)
Shareholder's equity	**$m**	**96.3**	**227.7**	**394.6**	**426.7**	**453.5**
Shares on issue	m	90.9	107.9	141.2	141.2	143.8

CASH FLOW		2018A	2019A	2020F	2021F	2022F
EBITDA	$m	15.0	25.9	31.8	47.7	40.8
Change in working capital	$m	0.0	(12.6)	(59.2)	28.5	9.2
Net interest	$m	0.8	0.2	0.6	1.6	2.6
Tax paid	$m	0.0	(1.9)	(4.1)	(6.2)	(10.6)
Other	$m	(31.4)	(45.4)	(55.2)	100.0	0.0
Operating cash flow	**$m**	**(15.7)**	**(33.8)**	**(86.2)**	**171.5**	**42.0**
Capital expenditure	$m	(3.2)	(4.6)	(2.6)	(3.6)	(3.6)
Acquisitions/divestment/other	$m	(9.0)	(4.0)	(25.0)	0.0	0.0
Investing cash flow	**$m**	**(12.2)**	**(8.6)**	**(27.6)**	**(3.6)**	**(3.6)**
Free cash flow	**$m**	**-18.9**	**-38.4**	**-88.7**	**167.9**	**38.4**
Equity	$m	58.4	81.3	145.1	0.0	0.0
Increase / (decrease) in borrowings	$m	0.0	0.0	0.0	0.0	0.0
Dividend/other	$m	0.0	(1.7)	(2.2)	(2.3)	(2.4)
Financing cash flow	**$m**	**58.4**	**79.6**	**142.8**	**(2.3)**	**(2.4)**
Net cash flow	**$m**	**30.6**	**37.1**	**29.1**	**165.6**	**36.0**

Source: Petra Capital

A laser-like focus on the blue sky

EOS is Australia's largest aerospace entity, and the largest defence exporter in the southern hemisphere, with established partnerships with key aerospace companies globally. While EOS's Space business (Figure 1) has been the technology incubator for the company's other business segments, the growth driver thus far has been Defence. EOS's strategic framework encompasses:

- ~A$800m of sunk R&D investment over the last 20 years, funded ~75% by customers, with the core technology IP having been retained by EOS;
- Continued investment in manufacturing/servicing capacity, with plans in place to supplement current Australian capacity of ~A$300m p.a. with operations in the US, UAE, and Singapore;
- The progressive and targeted monetisation of EOS's suite of technologies, in-step with ongoing investment in R&D to further develop technology base and sustain its competitive position; and
- Strategic acquisitions that complement EOS's technology base and enhance, increase, or accelerate the monetisation thereof.

Figure 1: The EOS ecosystem

Source: Company presentation

The targeted release of EOS's technologies was evident in 2017, when the company secured two significant sales contracts (~A$600m+) for its advanced remote weapons system (RWS), which is regarded as the most accurate and lethal offering in the market. While EOS has not formally secured any major contract additions over the intervening period, the outlook remains positive. We note:

- EOS estimates the revenue opportunity for its Defence business to be ~A$24m over the period 2021-2030, split equally between RWS and counter unmanned aerial systems (CUAS);
- EOS's current active tenders of ~A$3.1bn support the above forecast, which assumes ~A$1.2bn of demand for RWS and CUAS, respectively, in 2021, and a subsequent CAGR of 15% to 2030;
- Confirmation from EOS in mid-April 2020 that it had a Defence order backlog of ~A$600m and was in the final tendering stages for a material new contract with an existing customer.

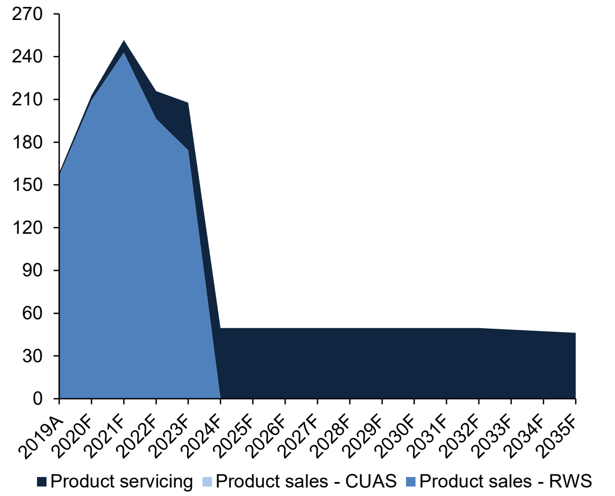
Beyond the core Defence business, which we expect to account for 96.2% of CY20 pre-tax profit (pre unallocated costs), EOS is also progressing the monetisation of its other technologies. Key in this regard were the recent acquisitions of EM Solutions and Audacy, which provide EOS with a foothold in traditional satellite communications from which to leverage its optical/laser technology.

Defence is still the main game

Our earnings forecasts assume Defence will remain the main game for EOS for the foreseeable future. While our base case forecasts (Figure 2) are limited to current contracted orders and related ancillary revenues, EOS's competitive position and the outlook for tendering activity across RWS and CUAS highlight the potential upside (Figure 3) to revenues. The key drivers of the latter scenario are:

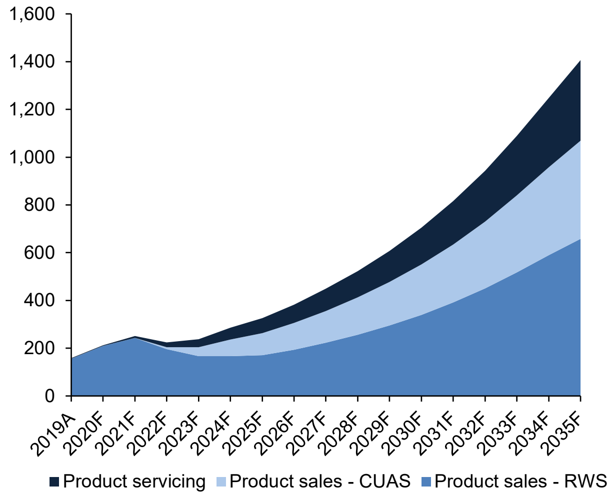
- EOS's current order book/backlog of A$500-600m and active tenders of ~A$3.1bn, with the latter comprising ~A$2.0bn RWS bids and ~A$1.1bn CUAS bids, for which contract awards are expected to be confirmed over the next 2 years;
- EOS's estimated total addressable market spend of ~A$24.0bn in the period 2021-2030, split equally between RWS and CUAS, starting at ~A$1.2bn of new product expenditures/product replacements (10-15 year product lifecycle) in 2021, respectively, with a CAGR of 15% to 2030;
- A tender conversion duration of 12-18 months and average tender conversion rate of 40% for RWS and 25% for CUAS, which approximates EOS's recent track record and current competitive position (RWS market is dominated by 3 companies, incl. EOS); and
- A contract duration/delivery profile of 4 years, with a more compressed delivery profile over the next 3 years reflecting accelerated delivery of backlog on higher manufacturing capacity, and 1:1 product maintenance revenues spread over 15-years post the 2-year warranty period.

Figure 2: Base case revenue profile



Source: Company data, Petra Capital estimates, A$m

Figure 3: Upside revenue profile



Source: Company data, Petra Capital estimates, A$m

There are three key pillars to EOS's competitive position, and the sustainment thereof. These are:

- **Product performance/innovation**. Despite having a more accurate and equally lethal RWS as its competitors (i.e. Kongsberg Protector and Rafael Samson), our research indicates that EOS has only recently been able to secure a commensurate market share. A key driver has been the more recent release of its market leading R400S-Mk2, which has been a game changer for EOS;
- **Production capacity and efficiency**. From 2016-2019 EOS expanded annual RWS production capacity (in Australia) from ~A$50m to ~A$300m. The company is now planning to increase its annual production capacity to ~A$900m, comprising an incremental strategic capacity allocation of A$300m, A$150m, and A$150m to the US, the UAE, and Singapore, respectively – EOS recently confirmed that US production will commence in 3Q20; and
- **Distribution and aftermarket servicing**. A key requirement for EOS's future competitiveness and profitability is the company's global supply chain, which enables stable pricing along with offset management and maximising natural currency hedging through flexible supply chain arrangements. To this end, the new EOS manufacturing plants are evolving to serve as hubs for regional supply chain coordination and product maintenance as part of a global service offering.

Space and Communications the next frontiers for growth

Following the recent acquisition of EM Solutions (space communications) and Audacy (ground communications), EOS established its Communications business as a complementary but stand-alone entity to Space (Figure 4). While both segments are currently forecast to make negligible contributions to Group earnings over the next 12-18 months, they offer significant blue-sky potential.

Figure 4: EOS Space System Laser Site

Source: Company presentation

Communications

In September 2019, EOS announced that it had achieved a breakthrough in the transmission of data to and from satellites using lasers, opening the way for a 1,000-fold increases in capacity. However, while EOS's innovative technology is far superior to the incumbent microwave-based (i.e. radio frequency or RF) spectrums, it is not compatible with the supporting communications infrastructures.

Given the significant sunk costs associated with the existing communications infrastructures, EOS's laser technology is facing, at least for the foreseeable future, an almost-impenetrable barrier to market entry. In recognition of this, EOS has acquired the requisite ground and space capabilities to offer customers an end-to-end microwave-based space communications solution.

This provides EOS with a foothold to future growth, based on the expectation that (i) incremental future capacity requirements for space communications are unlikely to be met using existing technology, and (ii) EOS's technology will enable hybrid (i.e. optical-microwave) and ultimately pure optical solutions for satellite communications, utilising its planned (CY24) MEO satellite constellation.

Space

While the Space segment was marginally profitable in CY19 and remains a technology hub for EOS's other segments (such as its CUAS technology and space communications technology), its earnings potential has been hampered by changes to Australian government priorities and policies. As a consequence, EOS is now pivoting from Australian space programme revenue to direct export sales.

Foreign customers which had been expected to co-ordinate requirements through the various Commonwealth programs are now negotiating directly with EOS for access to equipment and data. These activities have government support where required and are expected to provide growing revenues from both product sales and data services.

Our forecasts do not currently factor in the significant potential upside from EOS successfully capitalising on these export markets, However, given the technological superiority of EOS's product offering relative to current market technologies (i.e. radar) and its long working relationship with end users, Space could ultimately dwarf Defence in terms of profitability. Key end markets are:

- **Military**. Existing relationships through Defence provide cross-selling opportunities for Space.
- **Commercial**. There are ~US$900bn of satellites in orbit, with ~US$6bn lost annually to debris.

Group earnings forecasts

Our base case forecasts are summarised in Figure 5. Key assumptions include (i) no contract wins beyond the recently announced (but still subject to final negotiations) RWS contract with the Australian Government, (ii) a ramp up in product services revenues from past orders, and (iii) improved cash conversion (i.e. lower working capital and capacity upgrades).

Figure 5: Base case earnings and cash conversion estimates (A$m)

Year End December	**2020F**	**2021F**	**2022F**	**2023F**	**2024F**	**2025F**	**2026F**
Profit & Loss							
Revenues	**233.6**	**280.5**	**245.8**	**239.1**	**82.5**	**84.1**	**85.7**
- Defence	216.8	251.7	215.7	207.7	49.6	49.6	49.6
- Communications	11.4	22.7	23.4	24.1	24.8	25.6	26.3
- Space	5.5	6.1	6.7	7.4	8.1	8.9	9.8
Pre-tax profit	**27.3**	**42.9**	**36.9**	**35.9**	**7.1**	**10.9**	**13.3**
- Defence	26.2	39.0	32.8	31.3	2.1	5.3	7.4
- Communications	0.9	3.4	3.5	3.6	3.7	3.8	3.9
- Space	0.7	0.9	1.2	1.5	1.8	2.2	2.4
- Unallocated costs	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
Pre-tax profit margin ^	**11.7%**	**15.3%**	**15.0%**	**15.0%**	**8.6%**	**12.9%**	**15.6%**
- Defence	12.1%	15.5%	15.2%	15.1%	4.2%	10.7%	15.0%
- Communications	7.5%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
- Space	12.5%	15.0%	17.5%	20.0%	22.5%	25.0%	25.0%
- Unallocated costs	-1.8%	-1.2%	-1.4%	-1.4%	-7.0%	-4.6%	-3.8%
Cash conversion							
EBITDA	**31.8**	**47.7**	**40.8**	**39.6**	**10.5**	**14.2**	**16.6**
Change in WC	-59.2	28.5	9.2	1.8	41.5	-0.4	-0.4
Change in contract assets	-55.2	100.0	0.0	0.0	0.0	0.0	0.0
GOCF	**-82.6**	**176.2**	**50.0**	**41.3**	**52.1**	**13.7**	**16.2**
GOCF/EBITDA	-260%	369%	122%	104%	494%	97%	97%
- GOCF/Adj. EBITDA	100%	100%	100%	100%	100%	100%	100%

Source: Company data, Petra Capital estimates, ^ Assumes recalibration of cost base post run-off of current order book, margin benefit from cessation of planned capacity upgrades, which are expensed, and Defence sales mix shift to product maintenance services, which generate a higher margin.

CY20 guidance

In late May 2020, EOS reiterated its CY20 guidance from mid-April, with the main components being (i) revenue growth of 38% to $230m, (ii) EBIT (i.e. incl. interest income and excl. foreign exchange gains/losses) growth of 25% to $27m, implying a margin of 11.7%, and (iii) lower cash conversion. The revised guidance reflects the impact thus far from COVID-19, with:

- Revenue deferral of ~$70m to CY21 – the order book is unaffected at this stage;
- A ~180bps margin contraction, reflecting revenue deferrals and higher operating costs;
- A ~3-6 month delay to tender activities that were initially expected to be submitted in 2H20; and
- A ~$100m reduction in cash receipts due to product delivery constraints.

Our revised forecasts for CY20 approximate guidance, as follows:

- Revenue of $233.6m, up 41% on CY19;
- EBIT (excl. foreign exchange gains/losses and incl. interest income) of $27.6m;
- An EBIT margin of 11.4%; and
- A $55.2m increase in contract assets, resulting in a cumulative cash receipt delay of $100.6m.

An alternate "Upside" growth scenario

Our Upside scenario forecasts are summarised in Figure 6. Key assumptions include (i) a tender conversion rate of 40% for RWS and 25% for CUAS, (ii) capacity upgrades expensed through the P&L that facilitate operating leverage, (iii) negligible contributions from non-Defence segments, (iv) a USD/AUD exchange rate of 0.68 and effective tax rate of 20-28%, and (v) improved cash conversion.

Figure 6: Upside scenario earnings and cash conversion estimates (A$m)

Year End December	2020F	2021F	2022F	2023F	2024F	2025F	2026F
Profit & Loss							
Revenues	**233.6**	**280.5**	**253.9**	**268.7**	**318.7**	**360.2**	**418.6**
- Defence	216.8	251.7	223.8	237.2	285.8	325.8	382.5
- Communications	11.4	22.7	23.4	24.1	24.8	25.6	26.3
- Space	5.5	6.1	6.7	7.4	8.1	8.9	9.8
Pre-tax profit	**27.3**	**29.3**	**20.5**	**25.0**	**51.2**	**59.8**	**71.9**
- Defence	26.2	25.5	16.3	20.4	46.2	54.2	66.0
- Communications	0.9	3.4	3.5	3.6	3.7	3.8	3.9
- Space	0.7	0.9	1.2	1.5	1.8	2.2	2.4
- Unallocated costs	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5
Pre-tax profit margin ^	**11.7%**	**10.5%**	**8.1%**	**9.3%**	**16.1%**	**16.6%**	**17.2%**
- Defence	12.1%	10.1%	7.3%	8.6%	16.2%	16.6%	17.2%
- Communications	7.5%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%
- Space	12.5%	15.0%	17.5%	20.0%	22.5%	25.0%	25.0%
- Unallocated costs	-1.8%	-1.7%	-2.4%	-2.0%	-1.0%	-0.8%	-0.7%
Cash conversion							
EBITDA	**31.8**	**34.2**	**24.6**	**29.0**	**55.1**	**63.4**	**75.3**
Change in WC	-59.2	28.5	7.0	-3.9	-13.3	-11.0	-15.5
Change in contract assets	-55.2	100.0	0.0	0.0	0.0	0.0	0.0
GOCF	**-82.6**	**162.7**	**31.7**	**25.1**	**41.9**	**52.4**	**59.8**
GOCF/EBITDA	-260%	475%	129%	86%	76%	83%	79%
- GOCF/Adj. EBITDA	100%	100%	100%	100%	100%	100%	100%

Source: Company data, Petra Capital estimates, ^ Assumes sustained tendering activity leads to higher Defence revenues (initially product sales, then product servicing), with margin benefits from operating leverage offset near-term by expensing of progressive upgrades to an annual production capacity of A$1bn in CY24.

AUD/USD sensitivities in CY20

EOS has significant exposure to USD translations, by virtue of (i) its Defence products (i.e. RWS and CUAS) being priced in USD, and (ii) its expanding international footprint. While the latter does provide a natural hedge for ~65% of EOS's offshore earnings, the balance is exposed to movements in the AUD/USD in any given period. Our estimated AUD/USD sensitivities are summarised in Figure 7.

Figure 7: AUD sensitivity – Base case and Upside scenario (A$m)

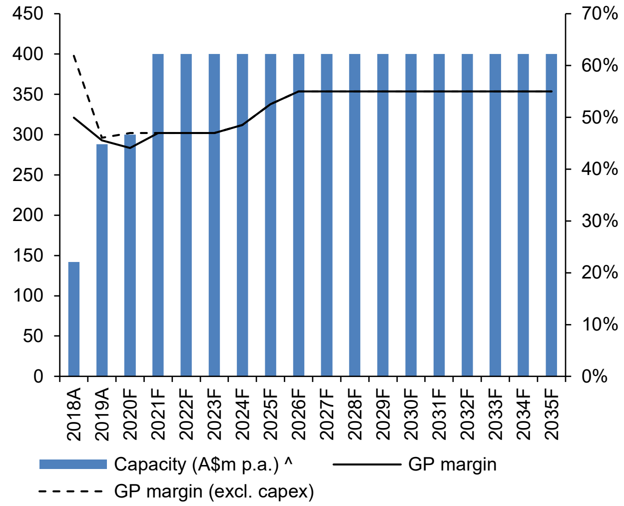
Year ending December	2019A	2020F			
AUD/USD	**0.70**	**0.61**	**0.68**	**0.70**	**0.74**
Revenue	165.4	245.9	233.6	229.7	223.6
Gross profit	75.3	110.8	103.0	100.5	96.6
- Gross profit margin	*45.5%*	*45.0%*	*44.1%*	*43.7%*	*43.2%*
EBIT (incl. non-sales income)	21.8	30.7	26.7	25.4	23.4
- EBIT margin	*13.2%*	*12.5%*	*11.4%*	*11.1%*	*10.5%*

Source: Petra Capital estimates

Profit margin sensitivities under each scenario

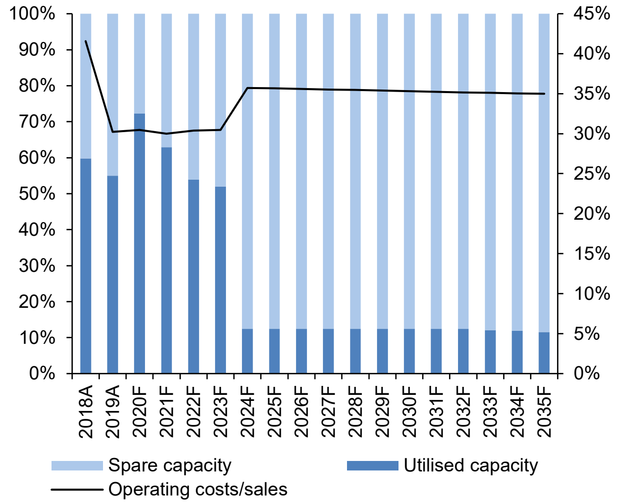
To date, EOS has expensed the bulk of its business development expenditures, including ~$200m on Space Communications. In Figure 8, we outline the impact that expensing incremental capacity upgrades (note that initial US capacity funding is already committed) through the P&L has on our base case GP margin forecast, and in Figure 9, we outline the resulting impact on operating leverage.

Figure 8: Production capex and GP margin (A$m)



Source: Petra Capital estimates, ^ Constant currency

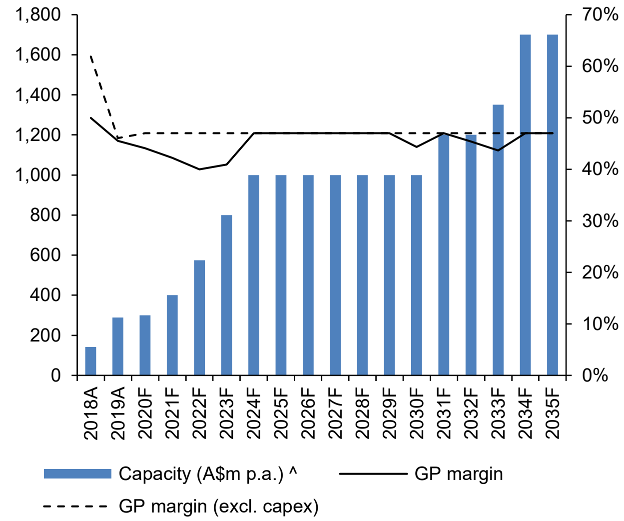
Figure 9: Operating leverage



Source: Company data, Petra Capital estimates

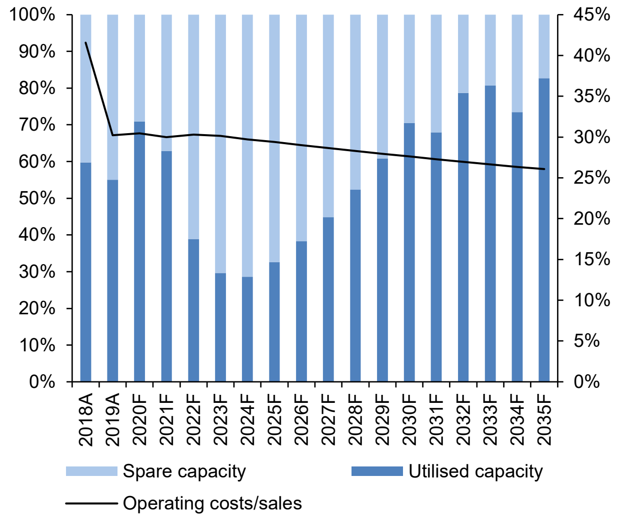
By comparison, our Upside scenario incorporates EOS's expectations for future capacity upgrades, having recently earmarked up to A$1bn of production capacity by CY24, with progressive delivery thereof subject to customer demand. Based on this Upside scenario, we outline our expectation for gross margins in Figure 10 and operating leverage in Figure 11.

Figure 10: Production capex and GP margin (A$m)



Source: Petra Capital estimates, ^ Constant currency

Figure 11: Operating leverage



Source: Company data, Petra Capital estimates

Estimating the value of base case and Upside scenario

As summarised in Figure 12, our base case forecasts assume:

- The run-off of the Defence order book;
- An emerging product services revenue stream based on past orders delivered;
- Incremental GP margin gains from sales mix changes and cessation of capacity upgrades; and
- Increased cash flow due to working capital reductions/cessation of capacity upgrades.

Figure 12: Base case – Base case (A$m)

Year ending December	2019A	2020F	2021F	2022F	2023F	2024F
Order book ^	600.0	613.1	370.5	174.3	0.0	0.0
Revenue	165.4	233.6	280.5	245.8	239.1	82.5
Gross profit	75.3	103.0	131.8	115.5	112.4	40.0
- GP margin	45.5%	44.1%	47.0%	47.0%	47.0%	48.5%
EBITDA	25.9	31.8	47.7	40.8	39.6	10.5
- EBITDA margin	15.7%	13.6%	17.0%	16.6%	16.5%	12.8%
FCF	-38.4	-88.7	167.9	38.4	30.3	42.2

Source: Petra Capital estimates, ^ Defence: non-Defence revenue forecasts based on an assumed growth rate

This contrasts with our Upside scenario, which is summarised in Figure 13, and assumes:

- Increased Defence tendering activity, order book conversions and ultimately revenues;
- Lower margins due to sales mix and expensing of capacity upgrades; and
- Reduced cash flow conversion due to increased working capital and capacity upgrades.

Figure 13: Upside scenario (A$m)

Year ending December	2019A	2020F	2021F	2022F	2023F	2024F
Order book ^	600.0	613.1	629.1	834.4	971.9	1,128.2
Revenue	165.4	233.6	280.5	253.9	268.7	318.7
Gross profit	75.3	103.0	118.4	101.5	110.0	149.8
- GP margin	*45.5%*	*44.1%*	*42.2%*	*40.0%*	*40.9%*	*47.0%*
EBITDA	25.9	31.8	34.2	24.6	29.0	55.1
- EBITDA margin	*15.7%*	*13.6%*	*12.2%*	*9.7%*	*10.8%*	*17.3%*
FCF	-38.4	-88.7	154.9	23.4	18.1	32.3

Source: Petra Capital estimates, ^ Defence only: non-Defence revenues derived from an assumed growth rate

The DCF valuation for our base case and Upside scenario are summarised in Figure 14.

Figure 14: DCF scenarios (A$m)

Scenario	Base case	Upside scenario
DCF NPV	**273**	**691**
- Explicit (FY20-FY29)	*131*	*169*
- Terminal item	*41*	*388*
- Imputation value	*4*	*38*
- Net cash/(debt)	*97*	*97*
DCF per share ($)	**1.88**	**4.78**

Source: Petra Capital estimates

Additional upside beyond Defence

While our Upside scenario arguably captures the bulk of the upside from Defence (i.e. ~31% conversion rate on ~$24bn of tenders over 10 years), it does not factor in any upside from Space Communications. As summarised in Figure 15, we have ascribed a 50% probability weighting to our estimated valuation upside from EOS adding satellites to its communications offering. Key points are:

- A$1.2bn capital (i.e. satellite) cost, 2/3 debt funded, with an asset life of 20 years from CY24;
- Addressable market of A$5bn p.a., with market share rising from 5% in CY24 to 10% in CY26;
- Operating costs of ~A$20m p.a. in CY24, increasing thereafter at 3% p.a.;
- An effective tax rate of 30%; and
- An IRR of 24.2%, compared to our WACC of 10.3%.

Figure 15: Ascribing additional blue-sky value to Space Communications (A$m)

DCF valuation	Base case	Satellites	SOTP
- Explicit	*169*	*1,645*	*1,814*
- Terminal item	*388*	*0*	*388*
- Imputation value	*38*	*0*	*38*
- Net cash/(debt)	*97*	*-900*	*-803*
Equity	**691**	**745**	**1,436**
Shares on issue	144.7	144.7	144.7
Equity per share	**4.78**	**5.15**	**9.93**
Probability weighted	100%	50%	74%
Equity per share	**4.78**	**2.58**	**7.35**

Source: Petra Capital estimates

Factoring it all in to our Target Price

We have used a two valuation methodologies to derive a fair value and target price for EOS. These are a company specific approach (DCF) and an industry specific approach (Order Book Multiple), with the latter based on the peer group outlined in Figure 16. Given the significant blue-sky upside across EOS's businesses, we have not included any earnings capitalisation methodologies.

Figure 16: EOS Defence Peer Group

Company	Currency	Year end	EV (m)	EV/EBITDA	3-yr EPS growth forecast	Order book multiple
Textron	USD	Dec	9,252	10.3	-13.3%	0.7
General Dynamics	USD	Dec	55,729	10.7	15.1%	0.5
Lockheed Martin	USD	Dec	109,811	11.1	32.1%	0.7
Northrop Grumman	USD	Dec	63,057	12.5	37.1%	0.8
CAE Inc	CAD	Mar	8,007	9.3	-23.8%	0.6
Raytheon	USD	Dec	31,535	5.5	32.9%	0.7
Cubic Corp	USD	Sep	2,391	15.9	27.1%	2.3
Average				**10.8**	**15.3%**	**0.9**

Source: Bloomberg, Petra Capital

A summary of our two valuation methodologies are outlined as follows:

- **DCF**. We have derived a fair value of A$7.35 per share from the sum of our Upside scenario valuation and a 50% weighting of our valuation for the satellite business (i.e. non-Defence upside). Our DCF analysis is based on a WACC of 10.3%.
- **Order Book**. We have derived a fair value of $6.36 per share by applying a 1.5x multiple to our Defence order book estimate for CY20 (i.e. $613.1m). While this represents a premium to the Peer Group average in Figure 16, it reflects EOS's current active tenders of ~A$3.1bn.

Using an equal blend of the valuation methodologies outlined above, we generate a target price of A$6.86 per share, as shown in Figure 17. The key catalysts for a higher valuation include:

- Increased order book, capacity utilisation and operating leverage from Defence;
- Increased clarity on funding and revenue upside from Space Communications; and
- Increased cash conversion.

Figure 17: EOS Target Price (A$m)

Year ending December	Fair value	Weighting	Value
DCF: WACC 10.3%, l-t growth 3.0%	$7.35	50%	$3.68
Order Book Multiple: 1.5x CY20F	$6.36	50%	$3.18
Blended valuation		**100%**	**$6.86**

Source: Petra Capital

Accordingly, we reiterate our Buy rating and increase our target price to $6.86ps, from $4.52ps.

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