9 May 2019 Australia

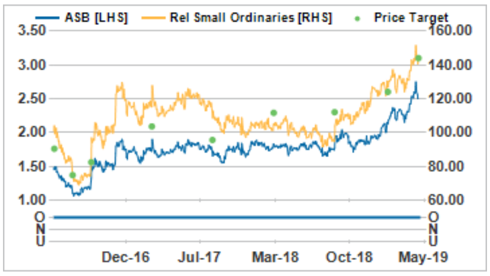
EQUITIES

ASB AU		Outperform
Price (at 05:55, 09 May 2019 GMT)		A$2.51
Valuation - EV/EBITA	A$	2.84-3.13
12-month target	A$	3.10
12-month TSR	%	+26.3
Volatility Index		Low
GICS sector		Capital Goods
Market cap	A$m	899
30-day avg turnover	A$m	2.2
Number shares on issue	m	358.3

Investment fundamentals

Year end 30 Jun		2018A	2019E	2020E	2021E
Revenue	m	1,392.0	1,876.2	1,807.9	1,743.6
EBITDA	m	102.3	126.7	142.2	144.0
EBIT	m	65.0	87.1	103.0	106.0
EBIT growth	%	10.7	34.0	18.3	2.9
Reported profit	m	39.0	54.2	66.5	69.7
Adjusted profit	m	39.0	54.2	66.5	69.7
Gross cashflow	m	76.3	93.8	105.7	107.7
CFPS	¢	21.8	26.7	30.0	30.6
CFPS growth	%	18.4	22.5	12.5	1.9
PGCFPS	x	11.5	9.4	8.4	8.2
PGCFPS rel	x	0.88	0.83	0.83	0.84
EPS adj	¢	11.1	15.4	18.9	19.8
EPS adj growth	%	18.9	38.5	22.6	4.7
PER adj	x	22.5	16.3	13.3	12.7
PER rel	x	1.08	0.87	0.85	0.88
Total DPS	¢	5.0	6.5	7.0	7.5
Total div yield	%	2.0	2.6	2.8	3.0
Franking	%	0	0	0	0
ROA	%	6.2	7.4	8.5	8.5
ROE	%	7.8	9.6	11.1	10.8
EV/EBITDA	x	8.1	6.5	5.8	5.8
Net debt/equity	%	4.2	-1.0	-10.7	-19.3
P/BV	x	1.6	1.5	1.4	1.3

ASB AU rel Small Ordinaries performance, & rec history



Note: Recommendation timeline - if not a continuous line, then there was no Macquarie coverage at the time or there was an embargo period.
Source: FactSet, Macquarie Research, May 2019
(all figures in AUD unless noted)

Analysts
Macquarie Securities (Australia) Limited

Mitchell Sonogan +61 2 8232 0675
mitchell.sonogan@macquarie.com

Austal (ASB AU)
All aboard

Key points

- ASB executing well, upside earnings risk medium-term particularly in US.
- Asian shipbuilding pivot on track, ongoing +ve efficiency/margins expected.
- OP. Val. attractive given growth profile:13x FY20 PE, 0.6x FY18-21 PEG.

Event

- We review the investment case for Austal focusing on upside from ongoing operational improvements and shipbuilding margins. We attended Austal's site tour to the Vietnam shipbuilding facility.

Impact

- **Significant upside risk to US margins and earnings outlook.** Austal has improved efficiency in the US by ~35% with ongoing improvements expected. Higher margin LCS vessels (LCS 28 onwards) will continue to comprise a larger % of throughput out to ~FY21/22, that provides upside risk to the current guidance for 7-8% shipbuilding margins. Increasing FY22 US EBIT margins to 9% (MRE 8%) would drive a ~+$15m EBIT uplift (+14%) to our forecasts.
- **Record $5.2bn order book, LCS/EPF work till ~2025/22, EPF extension likely.** The US Navy is looking at new uses for the EPF vessels, with recently awarded EPF 13 & 14 expected to have medical capability. Further upside exists in recently published plans for a large autonomous vessel class in 2022.
- **Large ferry market replacement cycle underway.** The replacement cycle is being driven by (i) many ferries approaching ~25 year expected life and (ii) major emissions changes that will push operators towards cleaner fuels such as LNG, hydrogen, battery-electric etc (we understand ASB is currently tendering on LNG vessels). The increased order rate from the replacement cycle was a primary driver of the Asian shipyard expansion.
- **Site tour supports positive view of Asian expansion, ramp-up on track.** Asia gives Austal a big cost advantage (labour <US$3/hr) over its primary competitor in the large ferry market. The ramp-up is on track with upside as operational efficiency improves and higher tech machinery is implemented.

Earnings and target price revision

- EPS: FY19/20 +1%/+9% due to +ve margin adjustments. TP +19% to $3.10 roll fwd to FY20, multiple no chg. and in line with historic range 9-10x EBITA.

Price catalyst

- 12-month price target: A$3.10 based on a EV/EBITA methodology.
- Catalyst: Vessel awards, positive update on FFG(X), delivery of stronger US & Australasia margins, FY19 beating consensus ~$86m EBIT & FY20 outlook.

Action and recommendation

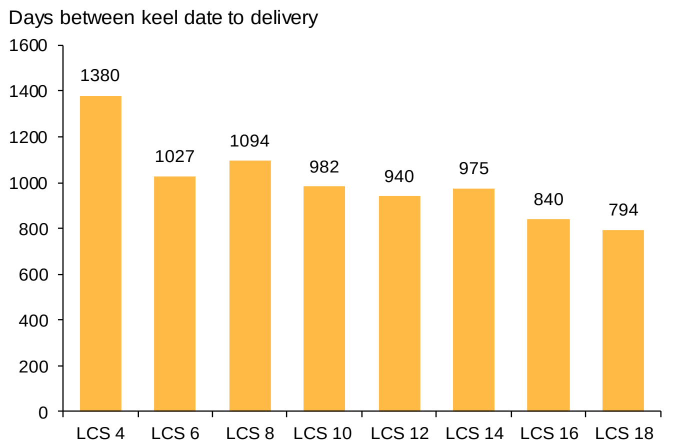
- **Outperform.** Austal continues to execute well. Ongoing operational efficiency improvements across the US and Australasian facilities gives a clear path to sustainable earnings growth medium term. The core LCS/EPF programs are mature, reducing construction risks, with increased FY18/19 contract awards shoring up the order book to ~2025/2022 (LCS/EPF). Additionally, recent LCS vessel contracts (LCS 28 onwards) were won at higher margins. With LCS 28 already under construction, higher margin vessels will increasingly comprise a larger % of total throughput till ~100% in FY21/22, driving strong margin uplift.

Significant upside risk to US margins and earnings outlook

The two main drivers of further upside to US shipbuilding margins are:

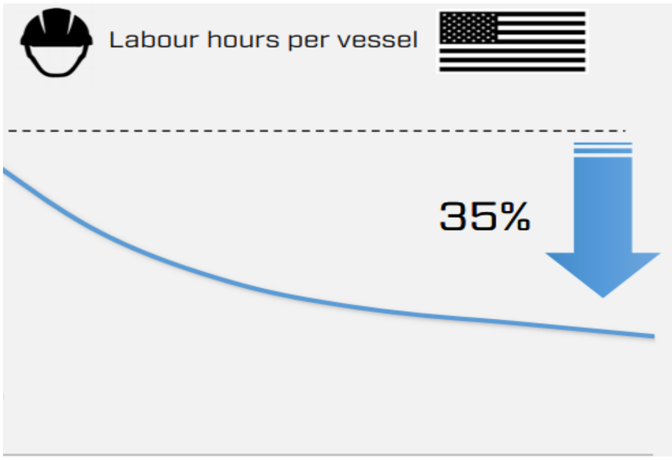
1. **Ongoing improvement in construction efficiency**
   a. At the FY18 result Austal reported a 35% decrease in labour hours per vessel. Build efficiency has improved dramatically on both the LCS and EPF programs and has led to a step change in delivery velocity (fig. 1-3).
2. **Higher margin LCS vessels comprise an increasing amount of revenue**
   a. LCS vessel awards (including 28 and beyond) have been won at significantly higher margins than the original 10-vessel block buy award.

Fig 1 Austal has driven a >30% reduction in days between keel and delivery on the LCS program with more to come…



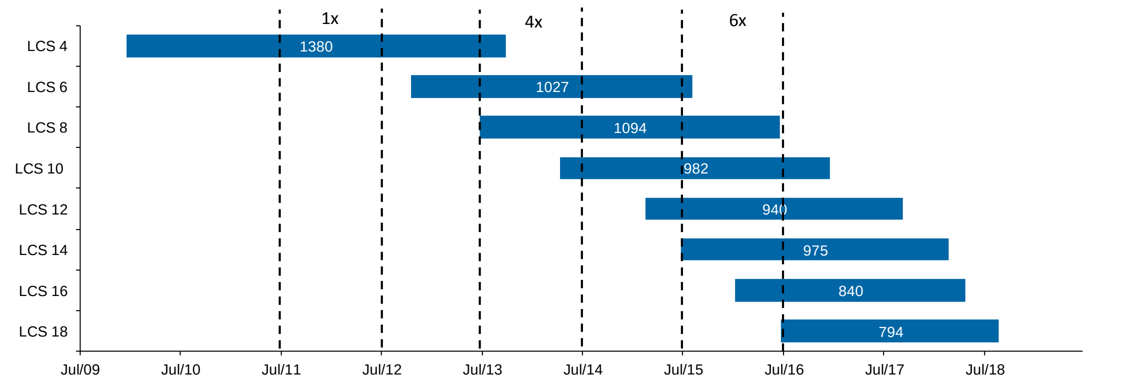
Source: National Vessel Register, Macquarie Research, May 2019

Fig 2 … with labour hours per vessel down 35%



Source: ASB FY18 presentation, May 2019

Fig 3 The increasing # of concurrent vessels under construction driven by improving efficiency



Source: Macquarie Research, Naval Vessel Register, Company data, May 2019. Chart shows days between keel laying to delivery.

Increasing efficiency and higher margin vessels create significant upside

LCS 28 is already under construction. We estimate LCS 26 will be delivered in FY21, meaning the majority of FY21 revenue and the entirety of FY22 revenue will be generated from higher margin vessels (LCS 28 and beyond). We therefore expect US shipbuilding margins in FY22 to reach 9% or beyond (our current forecasts assume US margins reach ~8% in FY22). **If FY22 US EBIT margins hit 9% this would drive a +$15m EBIT uplift,** or +14% above our current forecasts**.**

⇒ ***Macquarie Australia Conference commentary*** *was to expect growth in US shipbuilding margin over the next few years, and that it could be to the top of the 7-8% range and even beyond that over the next 1-2 years.*

Expansion of EPF vessel program likely

- **Navy finding new mission types for EPFs.** Austal has LCS contracts taking work out to 2025 while current EPF contracts are expected to take work till ~2022. We expect continuation of EPF production beyond this date as the Navy continues to find more uses for the EPF. For example, the latest EPF's contracted in March 2019 (EPF 13 & 14) are expected to have medical capability.
- The US Navy has recently published plans for a Large Autonomous Vessel class to be built from 2022 which could provide an opportunity for Austal to put forward a modified version of the EPF.

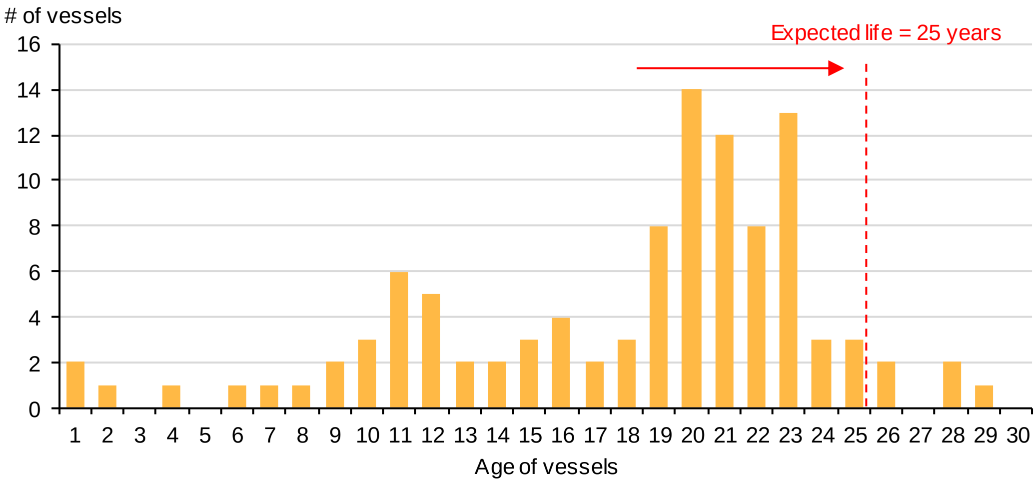
Large ferry market replacement cycle has several catalysts

Austal has been successfully winning a large number of commercial vessels and at the 1H18 result had 8 commercial vessels under construction (ex-China). The strong order book and favourable tender outlook is a key driver behind Austal's major expansion of its Philippines shipyard (to ~3x capacity) and the recent opening of its Vietnam facility.

We expect the commercial market to remain buoyant for Austal, driven by two major events:

1. **A global upgrade cycle driven by many vessels approaching ~25 year expected life**
    a. Many high-speed ferries in the global market are approaching their typical 25 year life (fig 4 below) that should ensure the current buoyant market conditions continue.
2. **Major emission regulation changes will push vessel operators towards cleaner fuels**
    a. Austal note two major emission regulation changes will impact the maritime sector over the next 2 years: (i) MARPOL 2020 global sulphur cap that requires all vessels globally to operate with no more than 0.5% sulphur in fuel content; and (ii) the 2021 Baltic & N. Sea NOx ECA which amounts to a 75% reduction in NOx emissions. This is only applicable to new vessels with keels laid after Jan 2021.
    b. The alternative is to switch to cleaner fuels such as LNG, hydrogen fuel cells, or battery-electric propulsion. Given the ongoing trend of global operators to decrease greenhouse emissions, the switch to cleaner fuel vessels may drive replacement cycles before the typical end of life replacement.
    c. We understand Austal is currently working on tenders for LNG powered commercial vessels.

Fig 4 Global high-speed ferry replacement market is underway, with age of vessels the main driver but emission changes and switch to cleaner fuels could be another catalyst



Source: Company data, Macquarie Research, May 2019

Asia site tour: pivoting commercial shipbuilding to Asia

- We recently attended Austal's site tour of the new Vietnam shipbuilding facilities. Austal's strategy is to pivot its commercial shipbuilding to the lower cost facilities in Asia, giving it a strategic advantage over its primary competitor, Incat (private company based in Tasmania). Additionally, Austal can expand the design teams located in Asia to provide a lower cost workforce that can perform a large amount of general design work. Detailed design and engineering will still take place in the core hubs in Australia and the US.

  ⇒ ***Macquarie Australia Conference commentary*** *was that Australasia 1H19 ships margin was 1.8% and management now expect this will be well higher in 2H19 and higher again in FY20.*

Vietnam shipyard tour – key takeaways

- Key management staff have long tenure at Austal and in the industry.
- **Majority of construction staff are highly skilled** and 65-70% have been employed at Strategic Marine, which is located next door to Austal's facility. Austal have 233 employees employed at Vung Tau and expect this will increase to 450-500 over the next year, with a large amount of the flex being provided by their subcontractor relationships.

  ⇒ The design team are highly qualified and growing rapidly. Austal can use this capability to do a large amount of future work, while top-end engineering and design will still be performed out of Australia and the United States.
- **A lot of room to keep driving efficiency improvements.** Austal noted that 2x CNC routers will soon be delivered and installed on site, allowing faster and more productive cutting of aluminium plate. A further US$1m capex in FY19/20 will see other tooling including pipe bending equipment installed.
- Austal have assumed 1.5x the equivalent Australian man hours in the construction process and are performing ahead of that. The labour cost of less than US$3/hour provides a significant advantage against its primary Australian-based competitor for large passenger ferries. The vessels are still built to the same quality standards and independently verified through the process.
- **Leased facilities have been cost effective to ramp up, room for further expansion.** Austal have the ability to further expand the Vung Tau facilities to allow construction of 2 vessels at a cost of <US$2m. Additionally, Austal are considering building a dock at the rear of the property to allow launching of vessels (currently barged to Ho Chi Minh) that would cost ~US$3m and would also provide optionality for sustainment works at a later stage.

  ⇒ The main facility at Tung Vau was constructed in around 4 months so Austal can easily expand the facility in time if they win additional vessels given a typical lead time of ~10 months from placement of order to cutting first metal.

Commercial market still strong, other opportunities ahead

- Large ferry market still buoyant.
- Fuel efficiency standards and LNG powered ferries could drive the next wave of orders. Austal noted that changing requirements for improved fuel efficiency on large vessels is driving interest in LNG powered vessels. While Austal have not delivered a LNG vessel to date, the Vietnam staff have experience in this area and expectations for LNG fuelling infrastructure in the Vung Tau area sets the business up well to capitalise. Austal are currently working on tenders in this space and we expect they could drop to orders in the next year.

  ⇒ From a design perspective, LNG vessels would not require any major changes to the existing structural design of Austal's boats. The major changes include surrounding systems such as ventilation, LNG storage and regassification, fuel delivery systems etc.
- Trimaran has been slow to catch on but expect to continue winning share. Austal believe the October 2017 A$190m order by Fred Olsen for a further 2x trimarans (the first was delivered in 2005 and is the world's largest trimaran vehicle passenger ferry) is a telling sign to the industry that the design works, with Fred Olsen noting the trimaran has outperformed the catamaran in rough conditions, reducing sea sickness and increasing the number of available operating days per year.
- Austal's experience in successfully starting and running global operations a differentiator. Austal has set up operations in the USA, Philippines and Vietnam and differentiates it against its key competitor in the large commercial market Incat, a private company based in Tasmania.

- Pacific Patrol Boats tracking well with the 4th vessel due for launch by year end. Austal are focusing on driving production efficiencies with a ~25% improvement from the 1st to 2nd vessel that should deliver healthy margins over time with ~4 vessels under construction and to be delivered pa.
- Aulong JV performing well, many opportunities but operates in a competitive market. Austal are seeing good order opportunities for their Aulong JV in China but noted there is significant competition from local operators in the small to mid-sized ferry market that compete at low cost. It is unlikely Austal will transfer technology and IP for construction of large catamaran or trimaran in Aulong.

USA

- Relationship with US Navy has only strengthened over time.
- **Sustainment could grow to >US$300m pa at 7-9% margins, Austal well placed.** The biggest opportunity in the near term is dry docking of LCS vessels in San Diego (home base of LCS vessels). Once 18 vessels are in the water this could see 6 vessels dry docked per year at US$20-30m per vessel = ~US$120-180m pa. Austal's relationship with the US Navy has strengthened and Austal are being encouraged to have dry docking facilities in San Diego.
  - ⇒ ***Macquarie Australia Conference commentary*** *was that sustainment revenues have grown at 20-30% CAGR for some time and management see a clear path to $400m+ sustainment revenue in the next 2-3 years, the result of firm orders already in place and ASB winning a larger piece of the work for each vessel. Sustainment contracts are typically cost-plus, which is attractive and low-risk. Margins are expected to grow to 7-8%.*

Fig 5 ASB financials

Austal Limited (ASB:$2.51)

9-May-19

Interim results		1H18(a)	2H18(a)	1H19(a)	2H19(e)
Revenue		**647.7**	**744.3**	**851.5**	**1024.7**
EBITDA	$m	**46.5**	**55.8**	**60.7**	**66.0**
Depreciation	$m	17.3	20.0	20.3	19.3
Amortisation of goodwill	$m	0.0	0.0	0.0	0.0
EBIT	$m	**29.2**	**35.8**	**40.4**	**46.7**
Net Interest expense	$m	3.9	4.3	4.1	3.3
Pre-Tax Profit	$m	**25.3**	**31.4**	**36.3**	**43.4**
Tax Expense	$m	-0.2	18.0	12.6	12.9
Net Profit	$m	**25.6**	**13.4**	**23.7**	**30.6**
Outside equity interests	$m	0.0	0.0	0.0	0.0
Net Abn/Extra	$m	0.0	0.0	0.0	0.0
Reported Earnings	$m	**25.6**	**13.4**	**23.7**	**30.6**
Adjusted Earnings	$m	**25.6**	**13.4**	**23.7**	**30.6**
Gross Cashflow	$m	**39.2**	**47.8**	**54.0**	**47.6**
EPS (Adj/dil)	c	7.3	3.8	6.7	8.7
EPS growth	%	37.3	-5.2	-7.7	126.4
CFPS	c	-4.8	23.5	29.0	-1.6
CFPS Growth	%	-61.6	1281.5	nmf	nmf
EBITDA/Sales	%	7.2	7.5	7.1	6.4
EBIT/Sales	%	4.5	4.8	4.7	4.6
Earnings Split	%	65.6	34.4	43.7	56.3
Revenue Growth	%	-0.1	12.5	31.5	37.7
EBIT Growth	%	-6.4	31.0	38.1	29.9

Profit & Loss		2018A	2019E	2020E	2021E
Revenue	$m	**1392.0**	**1876.2**	**1807.9**	**1743.6**
EBITDA	$m	**102.3**	**126.7**	**142.2**	**144.0**
Depreciation	$m	37.3	39.6	39.2	38.0
Amortisation of goodwill	$m	0.0	0.0	0.0	0.0
EBIT	$m	**65.0**	**87.1**	**103.0**	**106.0**
Net interest expense	$m	8.2	7.4	5.2	5.0
Pre-Tax Profit	$m	**56.8**	**79.7**	**97.9**	**101.0**
Tax Expense	$m	17.8	25.5	31.3	31.3
Net Profit	$m	**39.0**	**54.2**	**66.5**	**69.7**
Outside equity interests	$m	0.0	0.0	0.0	0.0
Net Abnormals/Extra.	$m	0.0	0.0	0.0	0.0
Reported Earnings	$m	**39.0**	**54.2**	**66.5**	**69.7**
Adjusted Earnings	$m	**39.0**	**54.2**	**66.5**	**69.7**
Gross Cashflow	$m	**87.0**	**101.6**	**111.5**	**107.7**
EPS (adj/diluted)	c	11.1	15.4	18.9	19.8
EPS growth	%	19%	39%	23%	5%
PE (adj)	x	22.5	16.3	13.3	12.7
CFPS	c	18.7	27.4	30.6	31.1
CFPS Growth	%	nmf	46.0	11.9	1.7
PGCFPS	x	13.4	9.2	8.2	8.1
DPS	c	5.0	6.5	7.0	7.5
Yield	%	2.0	2.6	2.8	3.0
Franking	%	-	-	-	-

Profit and Loss ratios		2018A	2019E	2020E	2021E
Revenue Growth	%	6.2	34.8	-3.6	-3.6
EBIT Growth	%	11.1	33.6	18.3	2.9
EBITDA/Sales	%	7.3	6.8	7.9	8.3
EBIT/Sales	%	4.7	4.6	5.7	6.1
Effective tax rate	%	31.3	32.0	32.0	31.0
Payout ratio	%	44.9	42.1	37.0	37.9
EV/EBITA	x	13.9	10.1	7.9	7.1
EV/EBITDA	x	8.8	6.9	5.7	5.2
EV/Sales	x	0.6	0.5	0.5	0.4
Balance sheet ratios					
ROE	%	7.8	9.6	11.1	10.8
ROA	%	6.2	7.4	8.5	8.5
ROFE	%	12.1	15.2	18.2	19.4
Net Debt	$m	23.3	-6.1	-66.9	-128.5
Net Debt/Equity	%	4.2	< 0	< 0	< 0
Interest Cover	x	7.9	11.8	19.9	21.1
Price/NTA	x	1.7	1.6	1.5	1.4
NTA per share	$	1.51	1.59	1.71	1.83
EFPOWA	m	350.3	351.5	352.0	352.0

Cashflow Analysis		2018A	2019E	2020E	2021E
Pre-tax Profit	$m	**56.8**	**79.7**	**97.9**	**101.0**
Depreciation & Amortisation	$m	37.3	39.6	39.2	38.0
Tax Paid	$m	-7.1	-17.8	-25.5	-31.3
Gross cashflow	$m	**87.0**	**101.6**	**111.5**	**107.7**
Changes in working capital	$m	-50.1	109.7	2.0	1.9
Other	$m	28.7	-115.1	-5.8	0.0
Operating Cashflow	$m	**65.6**	**96.1**	**107.8**	**109.6**
Acquisitions	$m	-9.8	0.0	0.0	0.0
Capex - Plant & Equip.	$m	-23.2	-43.9	-22.3	-21.5
Asset Sales	$m	0.3	0.0	0.0	0.0
Other	$m	-1.1	0.0	0.0	0.0
Investing cashflow	$m	**-33.9**	**-43.9**	**-22.3**	**-21.5**
Dividend (ordinary)	$m	-12.8	-22.9	-24.6	-26.4
Equity raised	$m	0.0	0.0	0.0	0.0
Other	$m	0.0	0.0	0.0	0.0
Financing cashflow	$m	**-12.8**	**-22.9**	**-24.6**	**-26.4**
Net Change in cash/debt	$m	**19.0**	**29.3**	**60.8**	**61.7**

Historical performance		2015A	2016A	2017A	2018A
Revenue	$m	**1414.0**	**1338.9**	**1310.1**	**1392.0**
EBITDA	$m	**97.5**	**65.0**	**90.2**	**102.3**
Depreciation/Amortisation	$m	24.3	29.9	31.5	37.3
EBIT	$m	**73.2**	**35.1**	**58.7**	**65.0**
Net interest expense	$m	4.1	5.5	5.7	8.2
Pre-Tax Profit	$m	**69.1**	**29.6**	**53.0**	**56.8**
Tax Expense	$m	24.1	4.6	20.3	17.8
Net Profit	$m	**45.0**	**25.0**	**32.7**	**39.0**
Net Abn/Extra	$m	8.2	-109.2	-17.3	0.0
EPS (adj/dil)	c	13.0	7.2	9.4	11.1
EPS growth	%	0.2	-0.4	0.3	0.2
Ordinary DPS	c	4.0	4.0	4.0	5.0
EBITDA/Sales	%	6.9	4.9	6.9	7.3
EBIT/Sales	%	5.2	2.6	4.5	4.7
ROE	%	9.5	5.1	7.1	7.8
ROFE	%	14.4	7.6	12.9	12.1
EFPOWA	m	346.8	347.7	349.0	350.3

Balance Sheet		2018A	2019E	2020E	2021E
Cash	$m	162.0	130.0	190.7	252.4
Receivables	$m	97.3	112.6	108.5	104.6
Inventories	$m	246.5	168.9	162.7	156.9
Investments	$m	10.2	140.6	140.6	140.6
Property, plant & equipment	$m	565.8	570.1	553.3	536.8
Intangibles	$m	20.8	20.8	20.8	20.8
Other Assets	$m	46.2	52.7	52.7	52.7
Total Assets	$m	**1148.8**	**1195.6**	**1229.3**	**1264.8**
Payables	$m	177.8	225.1	217.0	209.2
Short Term Debt	$m	72.8	11.4	11.4	11.4
Long Term Debt	$m	112.5	112.5	112.5	112.5
Other Liabilities	$m	236.7	266.2	266.2	266.2
Total Liabilities	$m	**599.8**	**615.2**	**607.0**	**599.3**
Shareholders Funds	$m	549.0	580.3	622.2	665.5
Minority Interests	$m	0.0	0.0	0.0	0.0
Total Shareholders Equity	$m	549.0	580.3	622.2	665.5
Total Funds employed	$m	**1,148.8**	**1,195.5**	**1,229.3**	**1,264.8**

Source: Company data, Macquarie Research, May 2019

Macquarie Quant Alpha Model Views

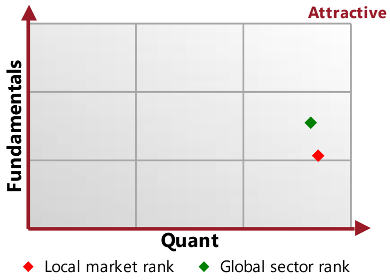
The Quant View page below has been derived from models that are developed and maintained by Sales and Trading personnel at Macquarie. The models are not a product of the Macquarie Research Department.

The quant model currently holds a strong positive view on Austal. The strongest style exposure is Earnings Momentum, indicating this stock has received earnings upgrades and is well liked by sell side analysts. The weakest style exposure is Profitability, indicating this stock is not efficiently converting investments to earnings; proxied by ratios like ROE or ROA.

252/2007

Global rank in Capital Goods

% of BUY recommendations	83% (5/6)
Number of Price Target downgrades	0
Number of Price Target upgrades	1

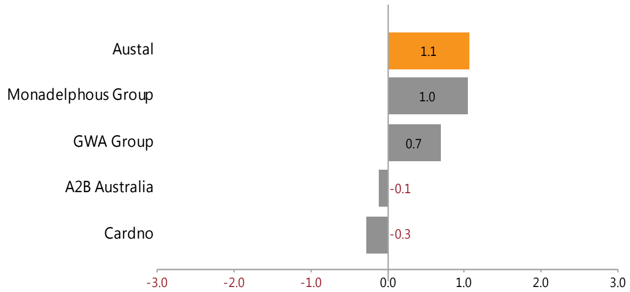


Displays where the company's ranked based on the fundamental consensus Price Target and Macquarie's Quantitative Alpha model.

Two rankings: Local market (Australia & NZ) and Global sector (Capital Goods)

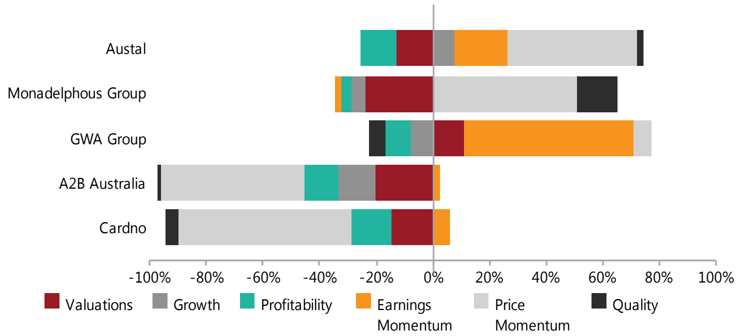
Macquarie Alpha Model ranking

A list of comparable companies and their Macquarie Alpha model score (higher is better).



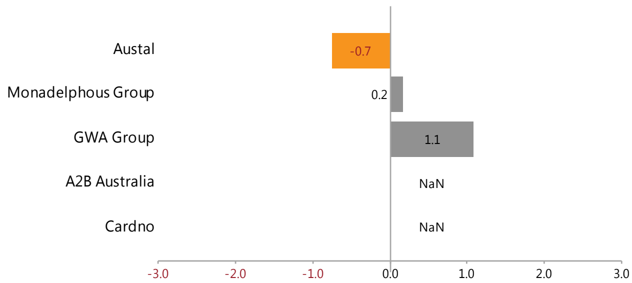
Factors driving the Alpha Model

For the comparable firms this chart shows the key underlying styles and their contribution to the current overall Alpha score.



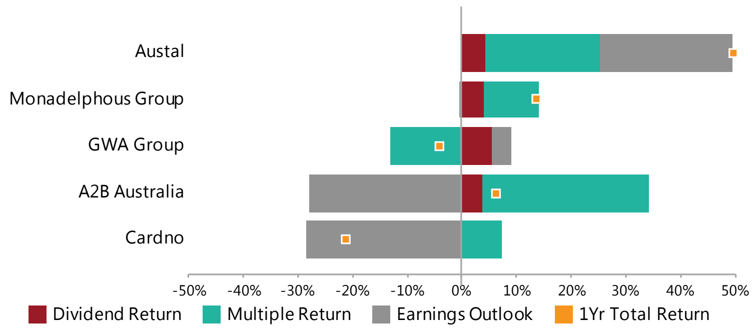
Macquarie Earnings Sentiment Indicator

The Macquarie Sentiment Indicator is an enhanced earnings revisions signal that favours analysts who have more timely and higher conviction revisions. Current score shown below.



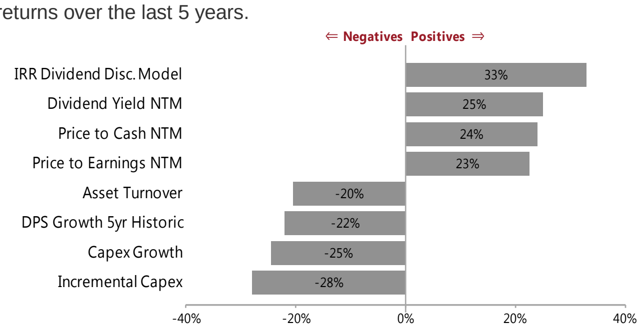
Drivers of Stock Return

Breakdown of 1 year total return (local currency) into returns from dividends, changes in forward earnings estimates and the resulting change in earnings multiple.



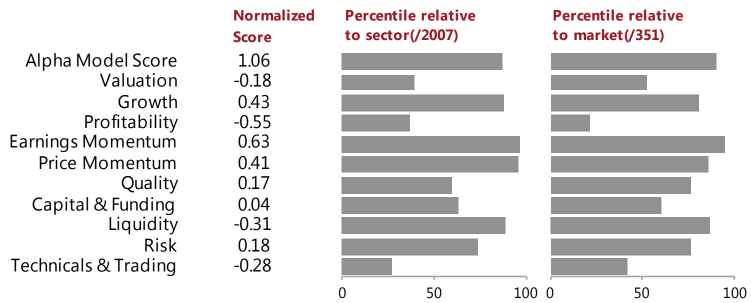
What drove this Company in the last 5 years

Which factor score has had the greatest correlation with the company's returns over the last 5 years.



How it looks on the Alpha model

A more granular view of the underlying style scores that drive the alpha (higher is better) and the percentile rank relative to the sector and market.



Source (all charts): FactSet, Thomson Reuters, and Macquarie Quant. For more details on the Macquarie Alpha model or for more customised analysis and screens, please contact the Macquarie Global Quantitative/Custom Products Group (cpg@macquarie.com)

Important disclosures:

Recommendation definitions

Macquarie – Asia, USA, Europe and Mazi Macquarie (SA):
Outperform – expected return >10%
Neutral – expected return from -10% to +10%
Underperform – expected return <-10%

Macquarie - Australia/New Zealand
Outperform – expected return >10%
Neutral – expected return from 0% to 10%
Underperform – expected return <0%

Note: expected return is reflective of a Medium Volatility stock and should be assumed to adjust proportionately with volatility risk

Volatility index definition*

This is calculated from the volatility of historical price movements.

Very high–highest risk – Stock should be expected to move up or down 60–100% in a year – investors should be aware this stock is highly speculative.

High – stock should be expected to move up or down at least 40–60% in a year – investors should be aware this stock could be speculative.

Medium – stock should be expected to move up or down at least 30–40% in a year.

Low–medium – stock should be expected to move up or down at least 25–30% in a year.

Low – stock should be expected to move up or down at least 15–25% in a year.
* Applicable to select stocks in Asia/Australia/NZ

Recommendations – 12 months
Note: Quant recommendations may differ from Fundamental Analyst recommendations

Financial definitions

All "Adjusted" data items have had the following adjustments made:
Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives & hedging, IFRS impairments & IFRS interest expense
Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends & minority interests

EPS = adjusted net profit / efpowa*
ROA = adjusted ebit / average total assets
ROA Banks/Insurance = adjusted net profit /average total assets
ROE = adjusted net profit / average shareholders funds
Gross cashflow = adjusted net profit + depreciation
*equivalent fully paid ordinary weighted average number of shares

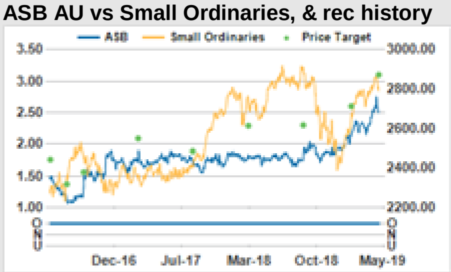
All Reported numbers for Australian/NZ listed stocks are modelled under IFRS (International Financial Reporting Standards).

Recommendation proportions – For quarter ending 31 March 2019

	AU/NZ	Asia	RSA	USA	CA	EUR	
Outperform	48.45%	56.50%	47.06%	51.94%	68.53%	51.76%	(for global coverage by Macquarie, 3.69% of stocks followed are investment banking clients)
Neutral	35.27%	30.15%	32.94%	42.78%	24.48%	38.19%	(for global coverage by Macquarie, 2.76% of stocks followed are investment banking clients)
Underperform	16.28%	13.35%	20.00%	5.28%	6.99%	10.05%	(for global coverage by Macquarie, 0.89% of stocks followed are investment banking clients)

Note: This table does not reflect the announced cessation of research services effective April 29, 2019, through our affiliate Macquarie Capital Markets Canada Ltd.

ASB AU vs Small Ordinaries, & rec history



(all figures in AUD currency unless noted)

Note: Recommendation timeline – if not a continuous line, then there was no Macquarie coverage at the time or there was an embargo period.
Source: FactSet, Macquarie Research, May 2019

12-month target price methodology

ASB AU: A$3.10 based on a EV/EBITA methodology

Company-specific disclosures:
ASB AU: A Macquarie analyst involved with the preparation of this research has, in the past 12 months, visited material operations of Austral Ltd. The company furnished local transportation as part of this site visit, which was authorized in adherence with Macquarie policy requirements.
Important disclosure information regarding the subject companies covered in this report is available at www.macquarie.com/research/disclosures.

Date	Stock Code (BBG code)	Recommendation	Target Price
06-Feb-2019	ASB AU	Outperform	A$2.60
30-Aug-2018	ASB AU	Outperform	A$2.30
28-Feb-2018	ASB AU	Outperform	A$2.29
28-Aug-2017	ASB AU	Outperform	A$1.89
27-Feb-2017	ASB AU	Outperform	A$2.09
29-Aug-2016	ASB AU	Outperform	A$1.56
04-Jul-2016	ASB AU	Outperform	A$1.37
10-May-2016	ASB AU	Outperform	A$1.76

Target price risk disclosures:
ASB AU: Any inability to compete successfully in their markets may harm the business. This could be a result of many factors which may include geographic mix and introduction of improved products or service offerings by competitors. The results of operations may be materially affected by global economic conditions generally, including conditions in financial markets. The company is exposed to market risks, such as changes in interest rates, foreign exchange rates and input prices. From time to time, the company will enter into transactions, including transactions in derivative instruments, to manage certain of these exposures.

Analyst certification:
We hereby certify that all of the views expressed in this report accurately reflect our personal views about the subject company or companies and its or their securities. We also certify that no part of our compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report. The Analysts responsible for preparing this report receive compensation from Macquarie that is based upon various factors including Macquarie Group Ltd total revenues, a portion of which are generated by Macquarie Group's Investment Banking activities.

General disclaimers:
Macquarie Securities (Australia) Ltd; Macquarie Capital (Europe) Ltd; Macquarie Capital (Ireland) DAC; Macquarie Capital Markets North America Ltd; Macquarie Capital (USA) Inc; Macquarie Capital Limited, Taiwan Securities Branch; Macquarie Capital Securities (Singapore) Pte Ltd; Macquarie Securities (NZ) Ltd; Mazi Macquarie Securities (RF) (Pty) Ltd; Macquarie Capital Securities (India) Pvt Ltd; Macquarie Capital Securities (Malaysia) Sdn

Research

Head of Equity Research	
Kristen Edmond	(612) 8232 3111
Retail / Consumer / Food & Bev	
Rob Freeman	(612) 8237 1152
Morana Hunter	(612) 8237 0017
Energy	
Andrew Hodge	(612) 8237 0321
ESG	
Anita Stanley	(612) 8232 9869
Financials	
Banks	
Victor German	(612) 8232 6089
Josh Freiman	(612) 8232 3882
Diversified Financials	
Brendan Carrig	(612) 8237 6043
Insurance	
Andrew Buncombe	(612) 8232 0629
Healthcare	
David Bailey	(612) 8237 2427
Industrials	
Capital Goods	
John Purtell	(612) 8232 8633
Infrastructure	
Ian Myles	(612) 8232 4157
Transport & Gaming	
David Fabris	(612) 8232 5705

Chemicals, D&C, Packaging, Builders, Steel	
John Purtell	(612) 8232 8633
Peter Steyn	(612) 8232 5144
Resources	
Hayden Bairstow	(618) 9224 0838
Ben Crowley	(618) 9224 0839
Real Estate	
Rob Freeman	(612) 8237 1152
Stuart McLean	(612) 8232 2859
Darren Leung	(612) 8232 8544
Telcos / Media	
Andrew Levy	(612) 8232 5165
Utilities	
Ian Myles	(612) 8232 4157
New Zealand	
Stephen Hudson	(649) 363 1414
Warren Doak	(649) 363 1416
Nick Mar	(649) 363 1476
Andrew Levy (Telecommunications)	(612) 8232 5165

Emerging Leaders – Industrials	
Tim Lawson	(612) 8237 7332
Mitchell Sonogan	(612) 8232 0675
Shaun Weick	(612) 8232 8248
Matt Johnston	(612) 8232 7007
Avinash Srinivasan	(612) 8232 0533
Equity Strategy	
Matthew Brooks	(612) 8232 1982
Data Services	
Sheridan Maher	(612) 8232 9786

Find our research at

Macquarie: www.macquarieresearch.com/ideas/
Thomson: www.thomson.com/financial
Reuters: www.knowledge.reuters.com
Bloomberg: MAC GO
Factset: http://www.factset.com/home.aspx
CapitalIQ www.capitaliq.com
Contact macresearch@macquarie.com for access requests.

Email addresses

FirstName.Surname@macquarie.com

Sales

Equities	
Dan Ritchie (Australia)	(612) 8232 3124
Dave Roberton (New Zealand)	(649) 363 1498
Sales	
Dan Pittorino (Desk Head - Sydney)	(612) 8237 0905
Mike Johnson (Desk Head - International Sales)	(612) 8232 4717
Andrew Haigh (Desk Head - London)	(44 20) 3037 4843
Michael McNair (Desk Head - New York)	(1 212) 231 2571
Dominic Smith (Desk Head - Asia)	(65) 6601 0212
Richard Weekes (Sydney)	(612) 8232 7586
Alex Williams (Sydney)	(612) 8232 3110
Eric Roles (Sydney)	(612) 8232 4565
Tiffany Ward (Sydney)	(612) 8232 5151
Daniel Raats (Melbourne)	(613) 9635 8271
Julia Thomas (Melbourne)	(613) 9635 9323
Leighton Patrick (New York)	(1 212) 231 2552
Jay Shyam (New York)	(1 212) 231 2491
Anura Logan (Asia)	(613) 9635 8177
Phil Zammit (Emerging Leaders)	(612) 8232 3122
Kurt Dalton (Property)	(612) 8232 5943
Stuart Murray (Derivatives)	(612) 8232 5090
Gavin Maher (Resources)	(612) 8232 4151
Angus Bottrell (Global)	(612) 8232 5959

Sales Trading	
Tim Shaw (Head of Execution)	(612) 8232 4386
Andrew Donald (Desk Head - Melbourne)	(613) 9635 8270
Sam Molina (Sydney)	(612) 8232 5935
Francis Sarks (Sydney)	(612) 8232 4458
Ben McIntyre (Sydney)	(612) 8237 2833
Luke Taper (Sydney)	(612) 8232 4962
David Harris (Melbourne)	(613) 9635 8595
Sam Sheffield (Auckland)	(649) 363 1431
Scott Moriarty (Auckland)	(649) 363 1480
Mike Keen (London)	(44 20) 3037 4905
Harry Boghossian (Emerging Leaders)	(612) 8237 5456
Electronic Execution	
Valerie Kingsmill	(612) 8237 2230
Darren Miller	(612) 8232 8261
Tarinee De Silva	(612) 8232 3151
Portfolio Trading	
Garth Leslie	(612) 8232 9982
Michael Khalife	(612) 8232 8893
Block Trading	
Tim Shaw (Desk Head - Sydney)	(612) 8232 4386

Equity Finance	
Greg Mann (Equity Finance)	(612) 8232 1820
Shannon Donohoe (Stock Borrow & Loan)	(612) 8232 6997
Syndication	
Paul Staines	(612) 8232 7781
Angus Firth	(612) 8232 4039
Corporate Access	
Julie Loring	(612) 8232 7543
Katherine Ridley	(612) 8232 7784
Transition Management & Portfolio Solutions	
Mick Larkin	(612) 8232 0639
Scott Macaulay	(612) 8232 4782
Elliot Graham	(612) 8237 4704
Mark Levinson	(612) 8232 5245
David Goodman (London)	(612) 8232 5245