Australia chemicals

Sector outlook - Underweight

Thanks for your support in the **Asiamoney Brokers Poll**. Please click here for our voting matrix.

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2 July 2020

Australia

Materials

Initiations

Incitec Pivot	IPL AU
Rec	**U-PF**
Market cap	US$2.6bn
Price	A$1.93
Target	A$1.96
TSR	4%

Orica	ORI AU
Rec	**U-PF**
Market cap	US$4.6bn
Price	A$16.54
Target	A$17.10
TSR	6%

Overburdened

Short-term disruption and structural forces hold back sector

The global explosives industry is facing cyclical, structural and Covid-related headwinds. Potential mining disruptions; structural issues in coal; ammonium nitrate oversupply; and falling profitability drive our bearish view on this robust, yet competitive sector. We initiate coverage on the Australian chemicals sector with an Underweight stance and Underperform ratings on manufacturers Incitec Pivot and Orica.

Covid-19 disruptions persist

We believe the risk of slow ramp-ups and false starts has increased, especially in Latin America. While we expect most mining operations to ramp up quickly in North America, the market could see softness from the structural decline in thermal coal.

Capital returns challenged

We believe structural changes are at the heart of declining returns. A gas-price disparity between Australia and key regions such as North America combined with miners' focus on costs are squeezing margins. Although industry analysis suggests low substitution and new entrant risk, high competition levels and buying power among key mining customers outweigh these factors.

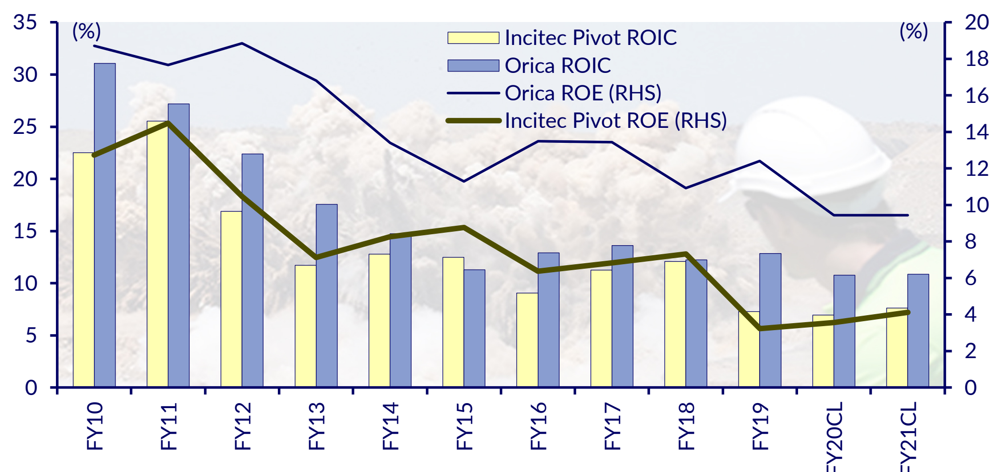
Weak coal demand

Weak demand from lower power generation and steel production has caused thermal and metallurgical coal prices to drop notably. We believe the current environment is reminiscent of the 2015/16 downturn, and Australian production and strip ratios are at risk of downward revisions moving into FY21. This could cause further oversupply in the Australian ammonium nitrate (AN) market, clouding the FY21/22 re-contracting outlook.

Underweight the sector

Although Incitec Pivot appears to be a solid turnaround story, we believe its opportunities are already captured in earnings forecasts and the stock could be a value trap. In our view, Orica's return profile and low growth outlook may not justify its 19x FY21CL PE. Our target price for Incitec Pivot is A$1.96 based on a SOTP analysis while Orica's target is A$17.10 based on a blended DCF/SOTP analysis and we rate them Underperforms.

Returns forecast



Source: CLSA. Note ROIC ex-goodwill

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For important disclosures please refer to page 88.

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EYE ON ASIAN ECONOMIES

Chief economist *Eric Fishwick* is positive on Australia's economy

Contents

Investment thesis 3

Covid-19 disruptions persist 5

Capital returns challenged 8

Weak coal demand 15

Underweight the sector 30

Company profiles

Incitec Pivot 43

Orica 65

Appendices

1: Ammonium nitrate market 80

2: Commodity price assumptions 86

All prices quoted herein are as at close of business 1 July 2020, unless otherwise stated

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Structural forces in play

Initiate with an Underweight sector stance

The global explosives industry is facing cyclical, structural and abnormal headwinds. Potential mining disruptions, structural issues in coal, ammonium nitrate oversupply and falling profitability drive our bearish view on this robust, yet competitive sector. We initiate coverage on the chemicals sector with an Underweight stance and Underperform ratings on Incitec Pivot and Orica. We believe Orica's return profile and outlook do not warrant its current share price and Incitec Pivot's value realisation is only possible, not probable.

This report focuses on the ammonium nitrate (AN) industry. For more on Incitec Pivot's fertiliser division, see our company profile on page 43.

Valuation summary

Company	Code	Rating	Current price (A$)	Market cap (A$bn)	Target price (A$)	TSR (%)	Div yield (%)	FY21CL PE (x)	FY21CL EV/Ebit (x)
Orica	ORI AU	U-PF	16.54	6.8	17.10	6	3	19.0	13.2
Incitec Pivot	IPL AU	U-PF	1.93	3.6	1.96	4	3	15.7	11.9

Source: CLSA

Covid-19 disruptions persist

Covid impact weighted to offshore regions; Australia largely immune

The pandemic continues to significantly impact global mining operations and supply chains, especially in Latin America, North America and Europe. In our view, short-term risks will be most apparent for Orica given its regional exposure in Latin America, Indonesia and Europe. While Incitec Pivot may be less affected in the near-term, Covid has likely accelerated the structural decline in US thermal coal and its recovery may be slower than Orica.

Capital returns challenged

Cost of capital returns are experiencing a structural shift

We see the decline in ORI and IPL's returns as structural. A gas price disparity between Australia and key regions such as North America is reducing commodity benchmark prices while increasing production costs, squeezing margins. Although industry and SWOT analysis (strengths, weaknesses, opportunities, threats) suggest low substitution and new entrant risk, high competition levels and buying power among key mining customers outweigh these factors, particularly ex-Australia.

Weak thermal and coking coal demand

Coal is the major commodity for AN and the key risk to Orica and IPL volumes

Both Orica and Incitec have large exposures to coal. Weak demand from lower power generation and steel production have caused thermal and metallurgical (met) coal prices to drop notably. We believe the current environment is reminiscent of the 2015/16 downturn and production plans and/or strip ratios are at risk of being revised downwards moving into FY21.

Weakening AN demand will worsen Australian balance

Coal represents 40% of Australian AN demand so a decline could lead to a further oversupply in the AN market as Orica brings on Burrup in Western Australia. We believe softening AN import parity prices (IPP) from lower offshore demand, an oversupply in the Australian market and high buying power among major mining customers will pressure expected price outlooks for Orica and Incitec Pivot's major re-contracting period in FY21/22.

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Incitec Pivot (IPL AU - A$1.93 - Underperform)

We initiate on Incitec Pivot with a A$1.96 target price

The bull case for Incitec Pivot appears to be a sharp recovery in fertiliser earnings, given the solid rainfall and crop outlook on the east coast. Consensus forecasts the company to deliver c.A$250m earnings growth from FY19-22. We expect a strong recovery to c.A$97m Ebit for fertilisers in FY23. But the risk is to the downside in the near term due to weak commodity prices and potential manufacturing disruption. A recovery could be a catalyst to revisit a sale of the business, but this is likely a more than 12 month scenario rather than a short-term catalyst.

This is combined with a weakening outlook for coal, which is Incitec Pivot's largest exposure. A structural decline in US thermal coal and BHP's declining strip ratios in Queensland is likely to pressure Incitec Pivot. There are question marks around the market balance over the next few years going into Australian AN price re-contracting in FY22. We are cautious on being positioned in Incitec Pivot for operating leverage in what is a highly uncertain market.

Orica (ORI AU - A$16.54 - Underperform)

We initiate on Orica with a A$17.10 target price

While we believe Orica is a higher quality business with a stronger balance sheet than Incitec Pivot, this is already reflected in the current share price. The duopoly / oligopoly industry structure appears outweighed by marginal producers and significant buyer power limiting price realisation. The question is whether low-single-digit organic earnings growth and 10-12% returns on capital justify the company's 19x FY21CL PE ratio. Pre-Covid, Orica's price did not reflect its longer-term structural risks. We believe the company's current price takes into account short-term Covid risk but not extended disruptions or structural changes.

We expect Orica's near-term earnings to be challenged due to Covid shutdowns in Latin America and, to a lesser extent, Europe and North America. However, these regions have a higher skew to gold, copper and other precious metals, which we expect to recover more quickly, relatively speaking, given prices and the requirement for gold and copper companies to increase reserves. We like the outlook for gold, but other names are better leveraged to this theme.

Orica has guided for 2H20 volumes to be 10-15% below pre-Covid expectations, from which we infer a c.7% decline YoY. The risk centres on Kooragang Island and New South Wales thermal coal, which could limit FY21 volume growth. The parts within Orica's control include Burrup's successful ramp up, Yarwun tonnes that have been re-contracted and the Exsa acquisition's execution and associated synergies.

Forecasts

CL and consensus forecasts

(A$m)	Orica			Incitec Pivot		
	FY20	FY21	FY22	FY20	FY21	FY22
CL Ebit	606	654	726	379	429	501
Consensus	622	711	769	426	496	558
Δ (%)	(3)	(8)	(6)	(11)	(14)	(10)
CL NPAT	319	354	414	183	232	292
Δ (%)	335	401	449	210	274	332
Consensus	(5)	(12)	(8)	(13)	(15)	(12)
CL EPS	81	87	102	10	12	16
Consensus	85	99	112	12	14	17
Δ (%)	(5)	(12)	(9)	(12)	(11)	(8)

Source: CLSA, Bloomberg

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Covid-19 disruptions persist

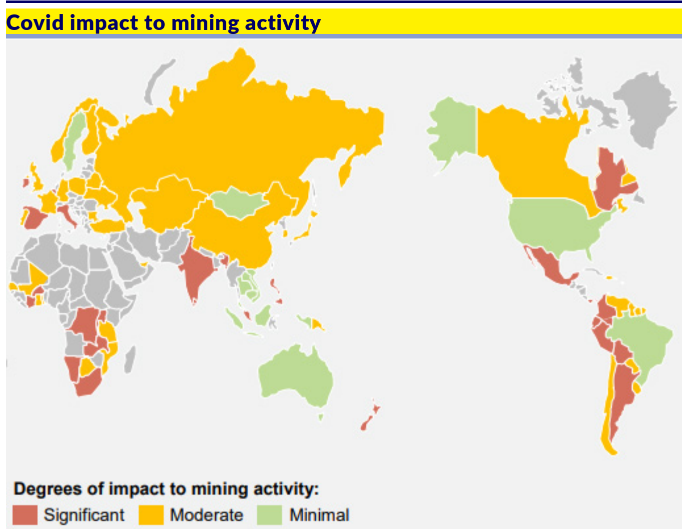
Risk on

We believe the risk of slow ramp-ups and false starts has increased, especially in Latin America. While we expect most mining operations to ramp up quickly in North America, the market could see softness from the structural decline in thermal coal.

Covid's impact on mining is most apparent in the USA, Europe and Latin America. Australia has had minimal disruption.

Figure 1

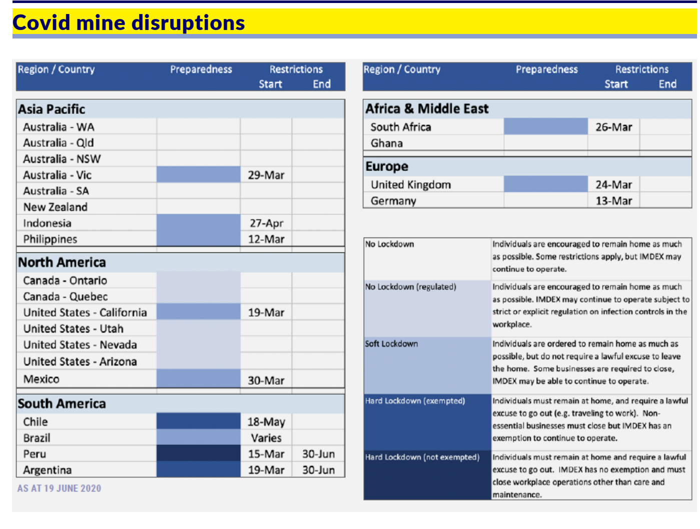
Covid impact to mining activity



Source: Orica

Figure 2

Covid mine disruptions



Region / Country	Preparedness	Restrictions Start	Restrictions End
Asia Pacific			
Australia - WA			
Australia - Qld			
Australia - NSW			
Australia - Vic		29-Mar	
Australia - SA			
New Zealand			
Indonesia		27-Apr	
Philippines		12-Mar	
North America			
Canada - Ontario			
Canada - Quebec			
United States - California		19-Mar	
United States - Utah			
United States - Nevada			
United States - Arizona			
Mexico		30-Mar	
South America			
Chile		18-May	
Brazil		Varies	
Peru		15-Mar	30-Jun
Argentina		19-Mar	30-Jun
Africa & Middle East			
South Africa		26-Mar	
Ghana			
Europe			
United Kingdom		24-Mar	
Germany		13-Mar	

AS AT 19 JUNE 2020

No Lockdown	Individuals are encouraged to remain home as much as possible. Some restrictions apply, but IMDEX may continue to operate.
No Lockdown (regulated)	Individuals are encouraged to remain home as much as possible. IMDEX may continue to operate subject to strict or explicit regulation on infection controls in the workplace.
Soft Lockdown	Individuals are ordered to remain home as much as possible, but do not require a lawful excuse to leave the home. Some businesses are required to close, IMDEX may be able to continue to operate.
Hard Lockdown (exempted)	Individuals must remain at home, and require a lawful excuse to go out (e.g. traveling to work). Non-essential businesses must close but IMDEX has an exemption to continue to operate.
Hard Lockdown (not exempted)	Individuals must remain at home and require a lawful excuse to go out. IMDEX has no exemption and must close workplace operations other than care and maintenance.

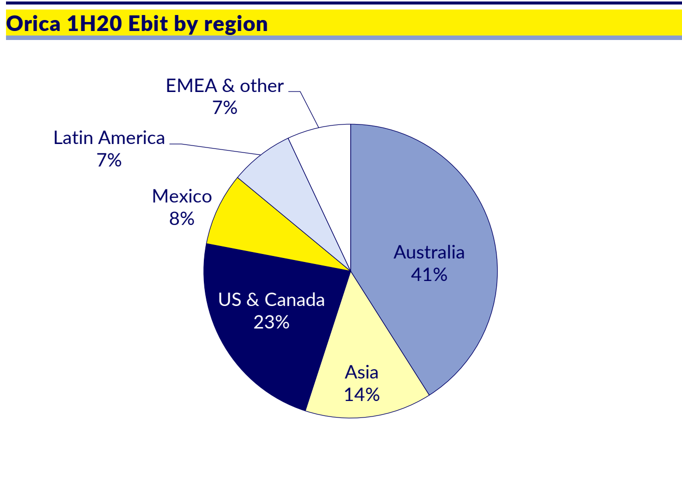
Source: Imdex

Shutdowns a challenge in Canada, Latin America, Mexico and Europe

According to Orica's 1H20 result, 90% of volumes across the business were intact. However, government mandated shutdowns were a challenge, particularly in Canada, Latin America, Mexico and Europe. As a result, 2H20 volumes are expected to come in 10-15% below pre-Covid levels. Pre-Covid growth expectations appeared to be c.5% so we expect 2H20 volumes to decrease c.7%.

Figure 3

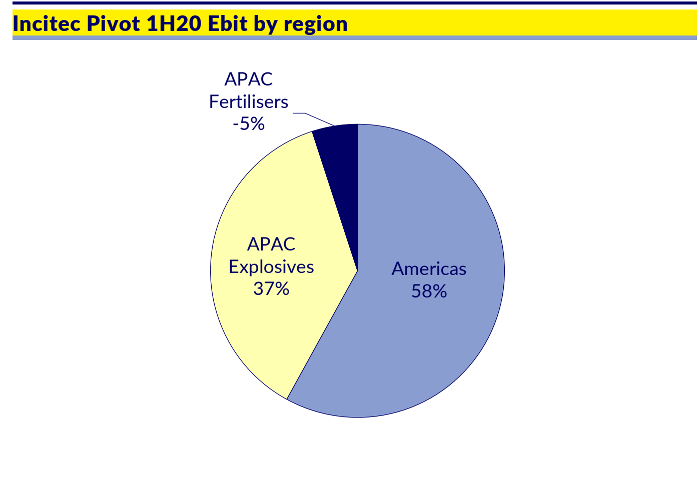
Orica 1H20 Ebit by region



Source: CLSA, Orica

Figure 4

Incitec Pivot 1H20 Ebit by region



Note: APAC fertilisers were loss-making. Source: CLSA, Incitec Pivot

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Mixed volume loss

The loss of volume is mixed. Australia and the USA are on target to hit pre-Covid levels but Peru, Mexico and Indonesian operations will be severely impacted, which will challenge margins. In addition, growth in new technology is likely to slow given difficulties accessing sites for any discretionary-type work, as seen in Incitec Pivot's guidance for a A$7m technology 2H20 headwind in Australia.

Chile's conditions not improving

Conditions in these regions, particularly Chile, do not appear to be improving with Codelco halting all construction projects and limiting operations at the major Chuiqicamata copper mine due to further outbreaks. Copper mines in Chile have been operating with reduced staff, implementing safety measures and shelving non-essential activities in a bid to maintain output; Codelco has trimmed its staffing by almost 30% since May. Peru also appears to be ramping up slowly.

Covid's impact on Incitec Pivot's volumes appears to be less severe given the geographical mix. The pandemic has had no direct effect on Australian fertilisers (outside of commodity prices) and the vast majority of explosive sites are running (small number impacted in Mexico and three US Mines shut until July).

Thermal coal disruptions have been significant in the USA

Figure 5

Thermal coal Covid disruptions

Supply disruptions pose upside risk to prices

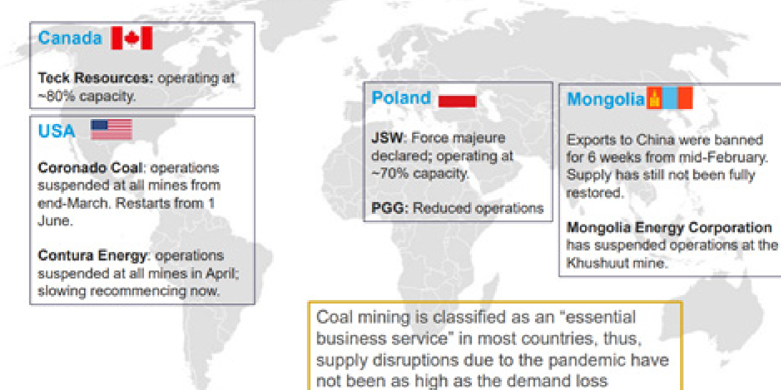
Source: CRU

Met coal disruptions mainly related to the USA

Figure 6

Metallurgical coal Covid disruptions

Covid-19 related disruptions primarily in North America and Mongolia



Source: CRU

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While Orica's major issues relate to Latin America and Mexico, Incitec Pivot's are connected to the significant thermal coal exposure in the USA. Reduced power consumption and lower gas prices resulting in power generation switching are significant headwinds in the USA with the thermal coal price materially impacted, which we discuss from page 20.

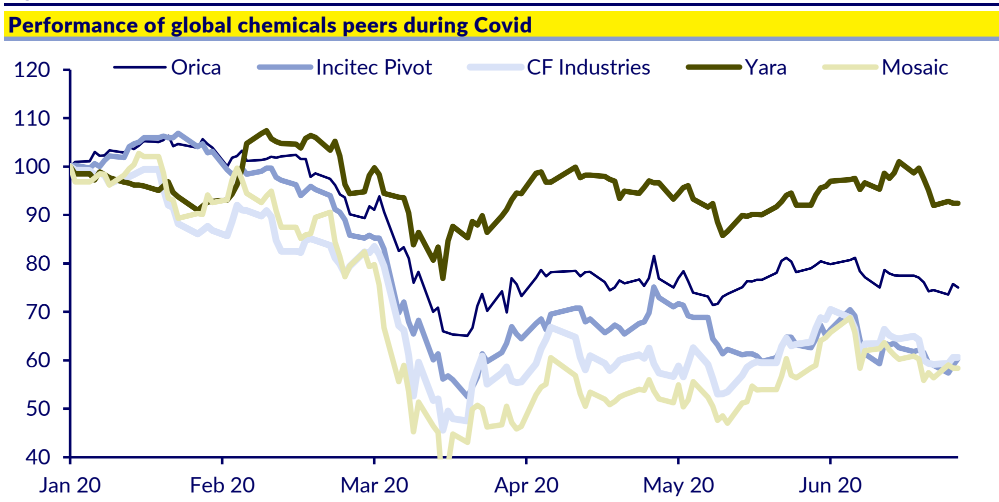
Reduced construction affecting US Q&C volumes

In addition, lower residential and non-residential construction levels are affecting US quarry and construction (Q&C) volumes. Q&C could potentially recover quickly, benefitting from the US' potential US$1tn stimulus package but there is limited detail on this to date. CRU anticipates a low chance of this occurring pre-election given the political deadlock and pressure on state budgets. Incitec Pivot's issues appear less significant compared to Orica's in the short term. That said, we view Incitec Pivot's threats as more medium-term; while short term risk is reduced, recovery could be slower.

Share prices reflect disruption but pace of recovery is uncertain

Figure 7

Performance of global chemicals peers during Covid



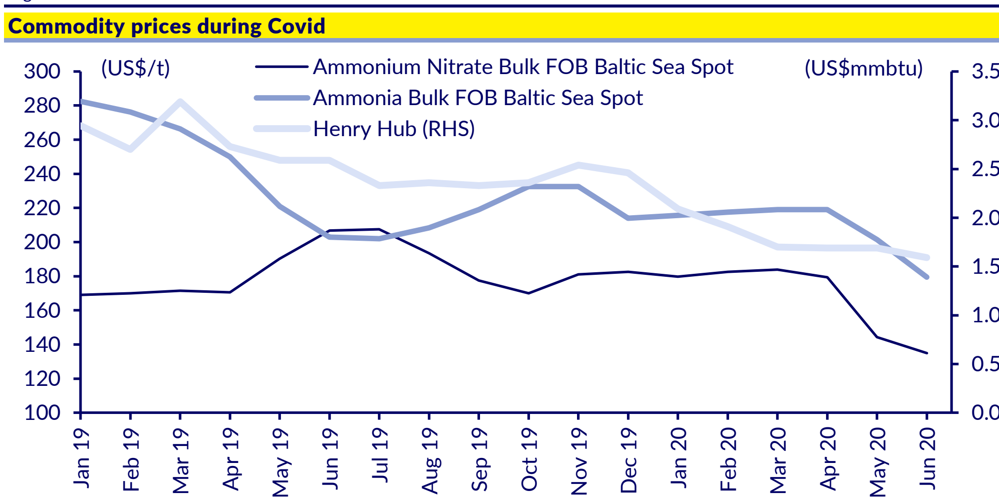
Note: Jan 2020 = 100. Source: CLSA, FactSet

As seen below, commodity prices have been affected. Benchmark ammonia and ammonium nitrate (AN) pricing is down 18% and 27% due to weak explosives demand in Russia, leading to a fertiliser grade ammonium nitrate (FGAN) export ramp up.

Weaker pricing a key driver in sector share price underperformance

Figure 8

Commodity prices during Covid



Note AN Baltic Benchmark is fertiliser grade AN. Source: CLSA, CRU, Bloomberg. Prices US$/t for Ammonia

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Capital returns challenged

We see a structural shift in cost of capital returns for both companies. A gas price disparity between Australia and key regions such as North America is reducing commodity benchmark prices while increasing production costs, squeezing margins. Although industry and SWOT analysis (strengths, weaknesses, opportunities, threats) suggest low substitution and new entrant risk, high competition levels and buying power among key mining customers outweigh these factors, particularly ex-Australia.

Incitec Pivot

Strengths

Operating leverage

Incitec Pivot's higher operating leverage comes from its high proportion of AN produced, particularly back to gas and fertiliser production. While it is a strength in an upcycle, it can also be the opposite.

Moranbah

The Dyno Nobel plant in Moranbah is a core advantage due to its high manufacturing reliability, at-capacity production, close proximity to key customers and fixed price gas contracts until 2026. Its customers are also at the bottom of the cost curve. Moranbah's close proximity to customers provides freight cost advantages over ORI's Yarwun and CSBP/IPL's Moura locations.

Weaknesses

Fertiliser manufacturing

Manufacturing disruption has been a challenge for the company across its explosives and fertiliser divisions. Its production process is gas intensive and high gas prices have negatively affected earnings, particularly at Gibson Island.

Opportunities

Sale of fertiliser business

Although the fertiliser business provides some diversification and a formal sale process was cancelled, we cannot rule out the potential for a sale in the future when the cycle starts to turn, which we would view as a positive.

Manufacturing efficiency

Commodity price movements will drive earnings but improving manufacturing efficiency and reliability is in Incitec Pivot's control and can deliver material benefits (c.A$50m Ebit by FY22).

Takeover target

Given the structure between Incitec Pivot and chemical supplier CSPB for both explosives and fertilisers, it has long been speculated that Wesfarmers could acquire Incitec Pivot. We do not view this as likely but at current prices (Incitec Pivot 10yr lows) there is a slight chance particularly as Wesfarmers look for industrials.

AN re-contracting

The majority of Incitec Pivot's AN book is up for re-contracting in the next two to three years. Given IPP pricing, there is potential for price upside.

Threats

Gas prices

Australian gas prices are elevated while US gas prices have been rapidly declining in what appears to be a structural change. While spot gas prices have come down in Australia recently, gas remains a key headwind even if structural change does not occur, particularly for Gibson Island.

Thermal coal structural decline in the USA

Incitec Pivot has higher exposure to thermal coal production in the USA. Given gas prices and structural changes to power generation, the sector is likely to remain in decline. Coal AN sales are lower margin so the downside is less significant but switching to other commodities or construction will be important.

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Orica

Strengths

Dominant market position

Orica represents about 60% of the east coast AN market. When Burrup is running at capacity, the company will account for about 30% of the Western Australia AN market. It also has a strong position in North America with 49% market share.

Strong balance sheet

The company's balance sheet provides significant headroom to weather a potential downturn and/or explore further growth opportunities.

Weaknesses

Latin America competition

Latin America has good growth opportunities with respect to commodity production but intense competition in AN among sellers will limit returns in the region.

Opportunities

Burrup

Ramping up Burrup can help capture expansion in the Pilbara. Longer term there is potential for volume growth from BHP, RIO and FMG, which will continue to support Western Australia demand for AN.

Technology

Tech is a critical factor that can increase customer efficiency, raise switching costs and drive margin. Orica appears to be a market leader but benefits to date appear marginal. We view technology as more of an opportunity than a strength for Orica's business model.

FY22 re-contracting

Some 40% of Orica's Australian book re-contracts in late FY21. Given where IPP prices sit, there is the potential for upside.

Threats

Gas prices

Australian gas prices are elevated while US gas prices have been rapidly declining in what appears to be a structural change. While spot gas prices have come down in Australia recently, gas remains a key headwind even if structural change does not occur, particularly for Kooragang Island.

Figure 9

Risks to ammonium nitrate outlook

Risk	Probability	Price Impact
	Medium	Upwards
Australian imports surge as gas prices increase	Orica and Incitec Pivot are due to renegotiate gas contracts in the medium term, and it is likely that the agreed east coast gas prices will be higher than current rates. This could lead to higher production costs, and it is possible that some parts of Australia could import more AN on economic grounds.	Reduction in Australian production could lead to higher imports than anticipated, resulting in a tighter global AN supply and higher prices. However, we view this as a negative to Orica and Incitec Pivot given volume will be the key driver of revenue.
		Since AN demand is not as price elastic as the mining industries it is consumed in, particularly in Australia, this price rise should not affect Australian AN demand.

Source: CLSA, CRU

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Australian competitive analysis

Supplier power

Low risk

Orica, Incitec Pivot and CSPB face low competition, particularly on a regional basis (ie, east coast supply for coal, west coast for iron ore). Explosives are a critical aspect of the production process and miners prefer a domestically-sourced supply. However, AN is still a commoditised product and cost increases can only be passed through until pricing reaches IPP. Past that level, miners (particularly the majors who operate explosives themselves) start to import. Orica's recent price reductions in response to major US gold mergers potentially signal its low bargaining power. This is why technology is important; it increases customer efficiency, raises switching costs and drives margin.

Buyer power

High risk

Buyer power varies by customer. Major customers including BHP, RIO and FMG have the greatest buyer power given scale and less reliance on Orica/Incitec Pivot/CSBP to administer explosives. That said, one of the partially offsetting factors is that AN explosives represent less than 5% of mine extraction costs. In addition, there are not many options if the buyer requires its supply to be domestically sourced due to high freight and storage costs.

Competitive rivalry

Medium risk

The Australian AN market is dominated by three players (Orica, Incitec Pivot, CSPB) who, for the most part, operate rationally.

Threat of substitution

Low risk

Explosives are critical for mine production. There is no alternative product for ammonium nitrate explosives. Alternatives are being researched to improve output and safety but nothing has been developed. There is no reason to believe that Orica/Incitec Pivot (global leaders) would not partake in future advancements either.

Threat of new entrants

Low risk

Although 1-200kt of AN are imported per year (with some being from Orica), the threat of new entrants is low. One of the key barriers to entry limiting imports is the significant freight costs (US$100/t import to Australia plus A$100-200/t to move AN around Australia). Other barriers include capital costs and contracted customers. Returns within the sector are low, particularly for incremental ROIC / replacement costs, which is partly driven by unfavourable economics (gas prices in Australia) and requires scale. Given industry returns, we do not believe new entrants are a likely threat.

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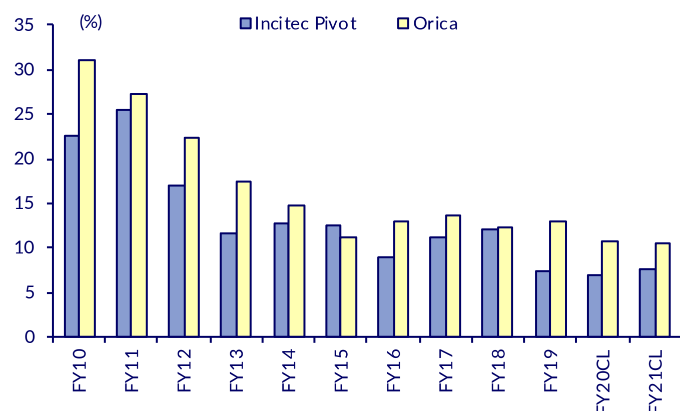
Returns declining

Returns structurally challenged

Returns for both Orica and Incitec Pivot have been trending lower, with ROIC (ex-goodwill) sitting at about 10-12% for Orica and 8-9% for Incitec Pivot - not that far above cost of capital. ROE for Orica looks far more attractive but is helped by higher gearing levels. While Orica's returns are more attractive than Incitec Pivot's, stability is greater as well.

Figure 10

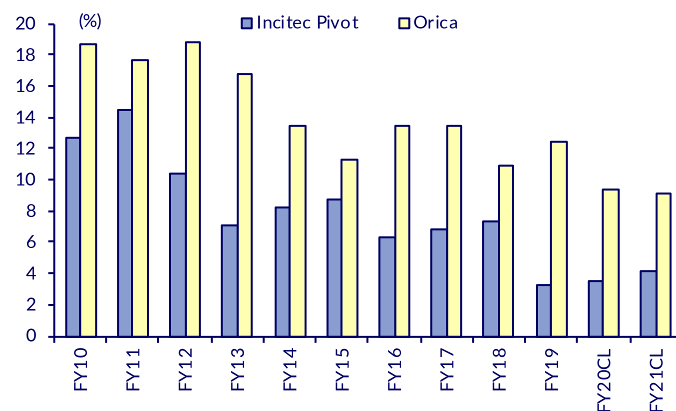
ROIC excluding goodwill



Source: CLSA, Orica, Incitec Pivot

Figure 11

Return on equity



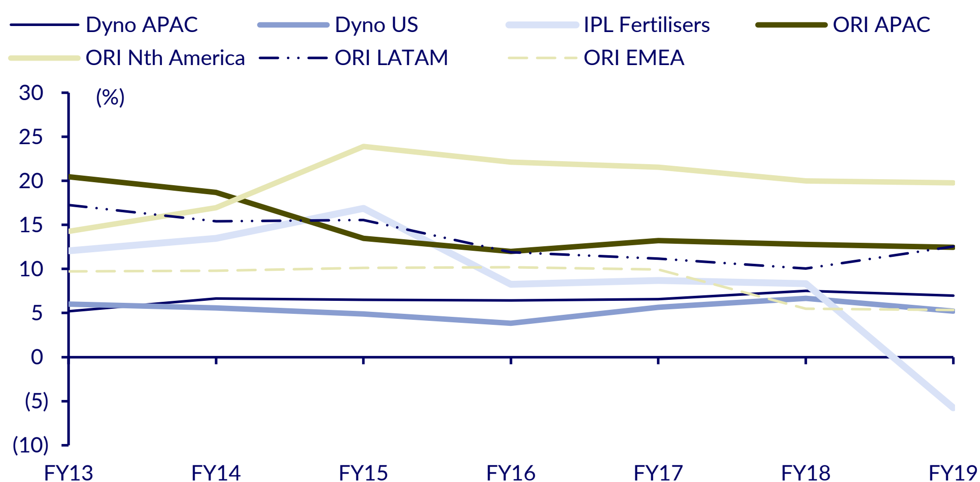
Source: CLSA, Orica, Incitec Pivot

Asset returns falling over time

To prevent fertilisers from skewing Incitec Pivot's group returns, we show asset returns by segment in Figure 12. Orica's businesses generate higher returns than Dyno.

Figure 12

Asset returns by segment



Note: Ebit/Avg segment assets. Source: CLSA, Orica, Incitec Pivot

Potentially a more important factor for Orica and Incitec Pivot are incremental returns. Relatively low returns are exaggerated on an incremental basis.

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Figure 13

Incremental returns on capital

	FY10	FY20	Incremental
Orica NOPAT (A$m)	805	412	(393)
Orica Invested Capital (A$m)	2,478	4,260	1,782
ROIC (%)	31.1	10.7	(22)
Incitec Pivot NOPAT (A$m)	484	289	(195)
Incitec Pivot Invested Capital (A$m)	2,148	4,275	2,128
ROIC (%)	22.5	7.0	(9)

Source: CLSA, Orica, Incitec Pivot

Incremental returns on capital have been poor

Relatively poor incremental returns are likely a driving factor behind the market remaining as consolidated as it is. Put simply, the major integrated AN production facilities in capital costs have averaged A$2,706/t (incorporating all expansions and de-bottlenecking). The cost for expansions in the last decade (excluding Burrup incremental capex) is c.A$2000-2600/t. This implies that to achieve above cost of capital returns, Australian AN needs to generate approximately A$200/t post-tax earnings.

Figure 14

AN facility costs

Company	Project	Date announced	Capacity (ktpa)	Cost (A$m)	Cost (A$/t)
CSBP	Kwinana	1996	825	1,030	1,248
Incitec Pivot	Moranbah	2008	380	1,000	2,632
Orica/Yara	Burrup	2008	330	1,399	4,239
Average					**2,706**

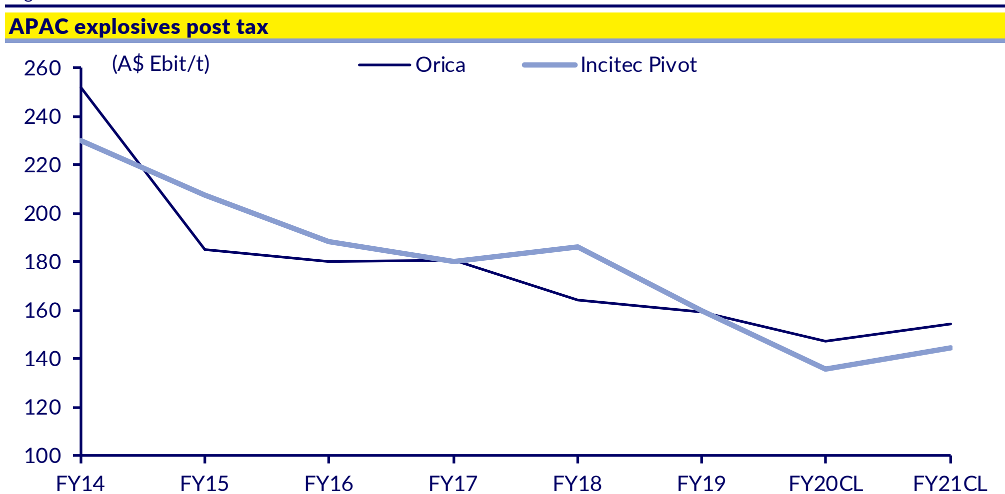
Source: CLSA, Orica, Incitec Pivot, WES

This was achievable during the resources boom, supported by high IPP prices given the currency tailwinds (A$/US$ at $1 vs 0.69 now) and lower gas costs.

We assume some recovery in Ebit/t but close to cost of capital returns

Figure 15

APAC explosives post tax



Note: 30% tax rate. Source: CLSA, Orica, Incitec Pivot

As shown in Figure 15, we expect Orica and Incitec Pivot to achieve improving margins towards c.A$180/t longer-term (post-tax), driven by a combination of stable pricing, operating leverage and improved manufacturing efficiency (notably Moranbah for Incitec Pivot and Burrup's ramp up for Orica).

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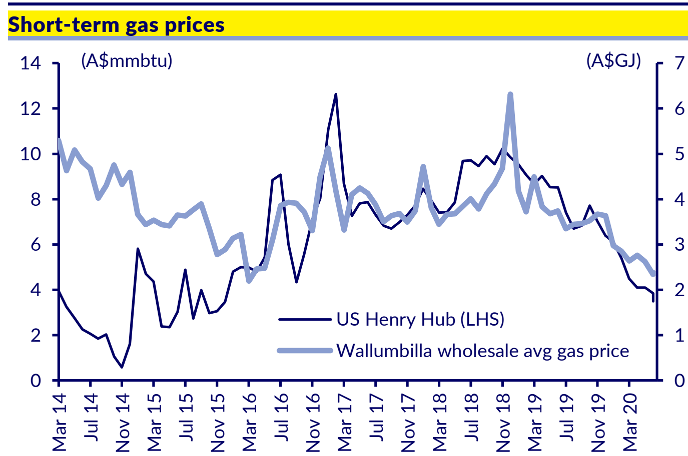
Returns a structural shift

Our view is that cost of capital returns are a structural shift in the Australian AN market. This is driven by a clear change in miners focus on costs and the offsetting dynamic of structurally declining gas prices offshore vs structurally increasing gas prices on the east coast of Australia. This has the impact of lowering the AN IPP price, increasing cost of production and eroding any cost advantage Australia may have had. Long-term gas contracts provide some benefit, but delay the impact.

Short-term gas prices have fallen due to falling demand (Figure 16), but this is unlikely to change long-term price expectations. As a result, AN plants are unlikely to benefit from recent movements. We understand Australian AN producers are contracted at US$4-5Mmbtu gas on the west coast and US$6-8Mmbtu gas on the east coast (Moranbah until 2026).

Figure 16

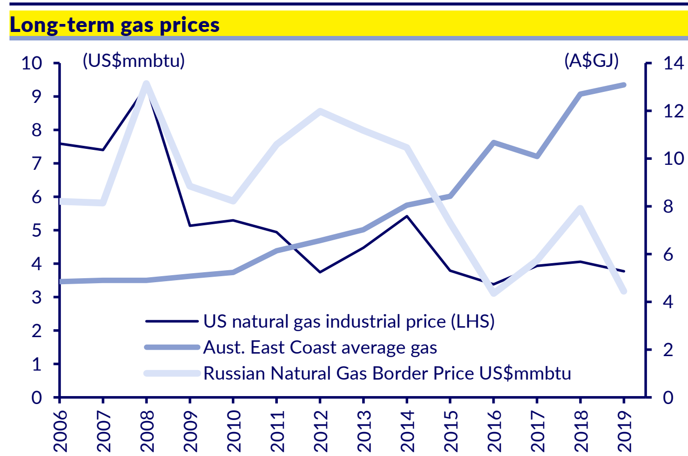
Short-term gas prices



Source: CLSA, FactSet, AEMO

Figure 17

Long-term gas prices



Source: CLSA, Bloomberg, EIA, Aus Dept. of Industry. 2006-17 large industrial customer average contract prices. 2018 and 2019 estimated using ABS gas PPI index.

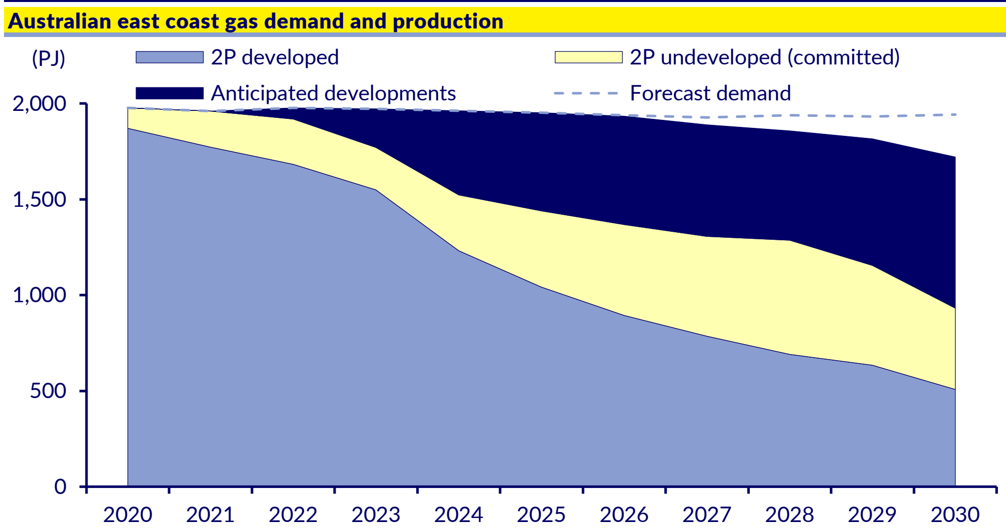
Despite moves in the short term, east coast long-term gas prices look unlikely to fall with significant supply shortfalls from 2022 as seen below. To meet demand there will need to be a significant increase in new developments, noting AEMO's forecast below was pre Covid so there is likely downside risk.

CLSA energy analyst Daniel Butcher forecasts Australian long-term east coast gas prices to remain at A$9-10GJ

As a result, we are unlikely to see any benefits for gas and cost of production over the short to long term

Figure 18

Australian east coast gas demand and production



Note: PJ = petajoule. Source: CLSA, AEMO

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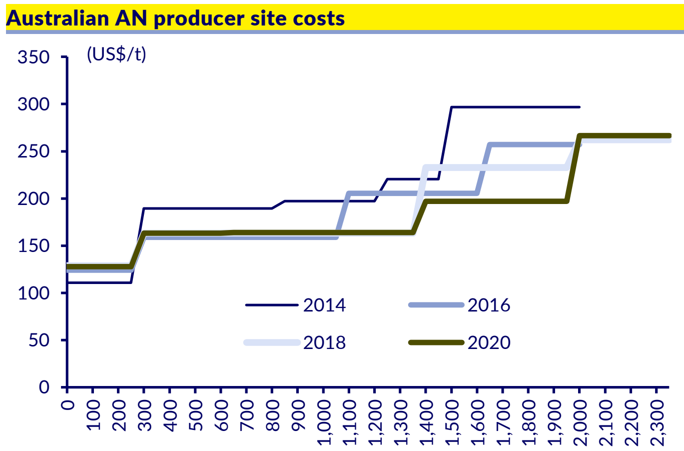
Figure 19

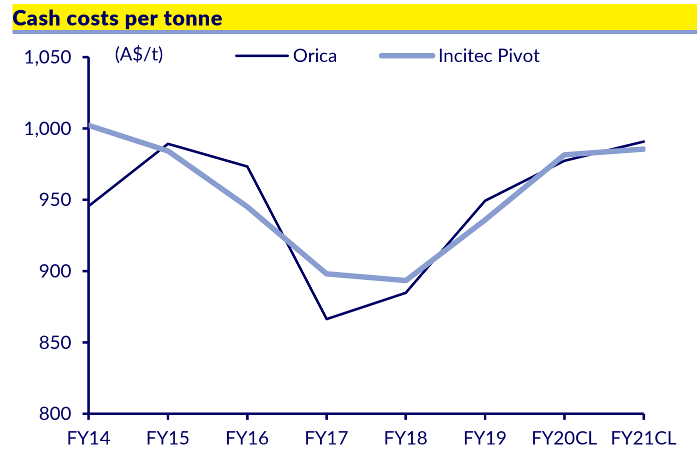
Australian AN producer site costs



Source: CLSA, CRU

Figure 20

Cash costs per tonne

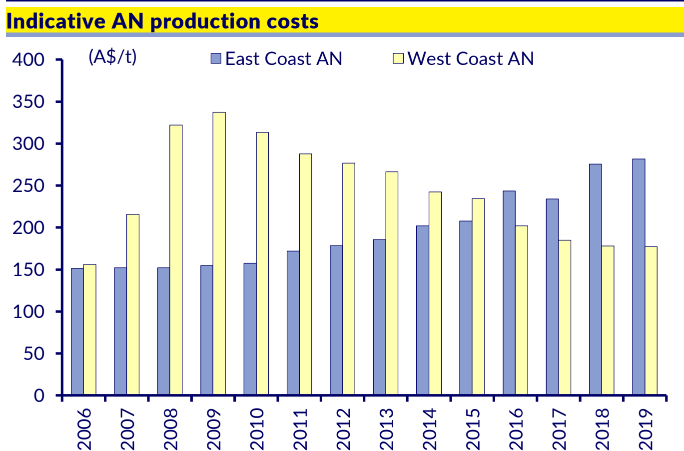


Source: CLSA, Orica, Incitec Pivot

The economics are changing for the AN industry. Production margins are rising on the west coast but falling on the east coast.

Figure 21

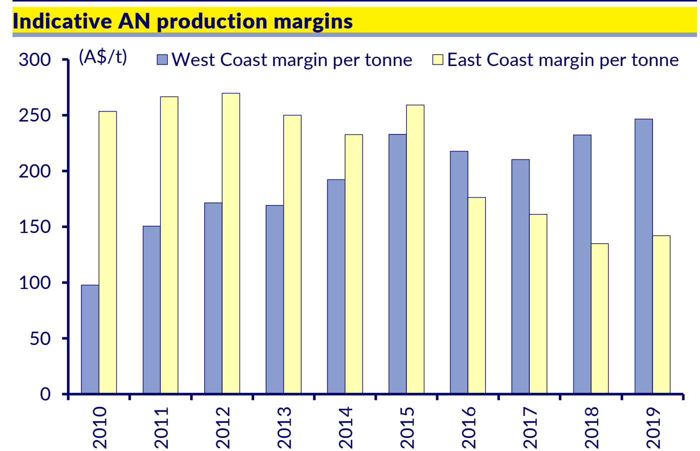
Indicative AN production costs



Source: CLSA, CRU, Aus Dept. of Industry. 2006-17 large industrial customer average contract prices. 2018 and 2019 estimated using ABS gas PPI index.

Figure 22

Indicative AN production margins

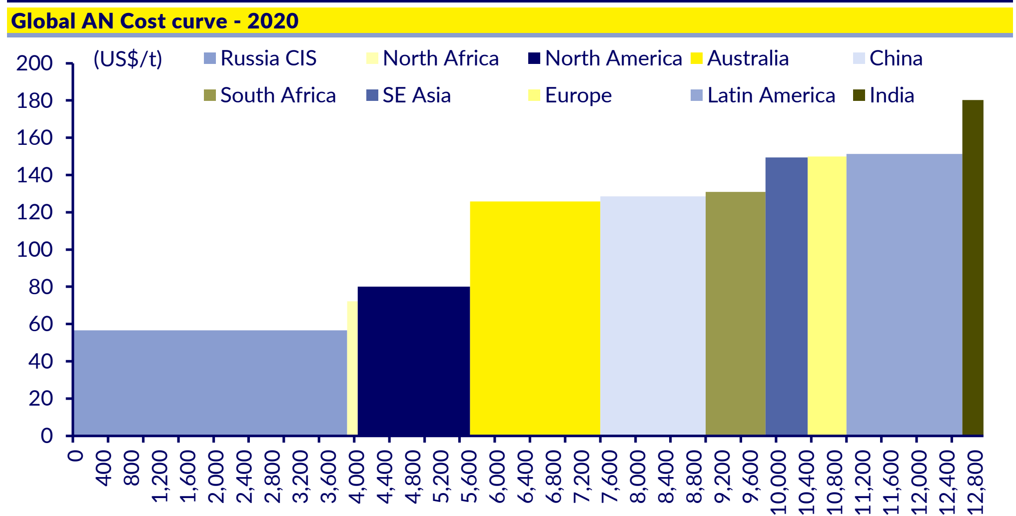


Note: analysis does not include changes to producer overheads etc.
Source: CLSA, CRU, Aus Department of Industry.

Gas price levels impacting cost curve position

Figure 23

Global AN Cost curve - 2020



Source: CLSA, CRU

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Significant drop in thermal and coking coal prices

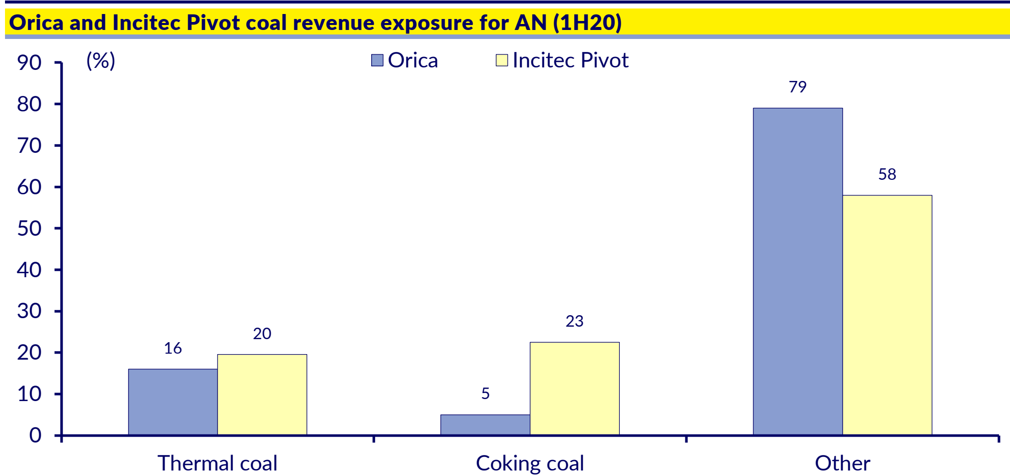
Weak coal demand

Weak demand from lower power generation and steel production have caused thermal and met coal prices to drop notably. We believe the current environment is reminiscent of the 2015/16 downturn and production and/or strip ratios are at risk of being revised downwards moving into FY21. This could see the Australian ammonium nitrate (AN) market enter a further oversupply, clouding the outlook for FY21/22 price re-contracting benefits.

Incitec Pivot more exposed to US coal; Orica less exposed and APAC based

Figure 24

Orica and Incitec Pivot coal revenue exposure for AN (1H20)



Source: CLSA, Orica, Incitec Pivot

Coal is Orica and Incitec Pivot's largest commodity exposure. As seen in Figure 24, Incitec Pivot has the higher coal exposure at 43% of explosives revenue versus Orica at 21%. The skew differs with Orica's exposure largely from New South Wales thermal vs Incitec Pivot from Queensland metallurgical and US thermal. Coal likely represents a larger share of volume and thus has an impact on operating leverage, particularly given their large coal positions in Australia, where manufacturing is located.

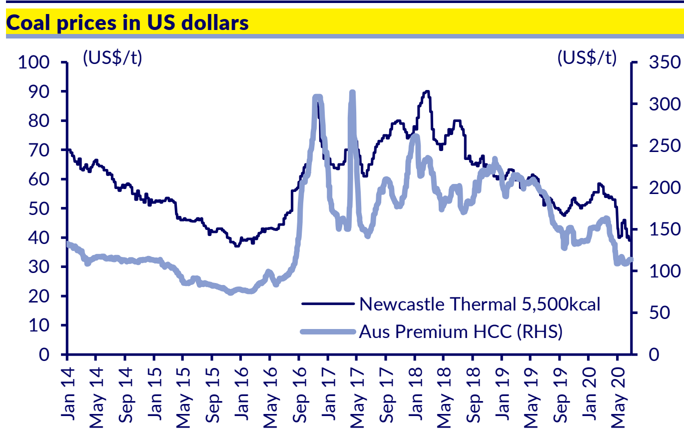
Coal prices have been weak and Australian dollar FX support has fallen away

Coal prices weakening

Thermal coal prices are down 25% since the beginning of the year, with Australian hard coking coal down 18%. This represents a 24/41% YoY decline, respectively. Foreign exchange price support helped significantly during the start of Covid but with the Australian dollar up c.20% to 0.69c, the pain for Australian producers is now starting to be felt.

Figure 25

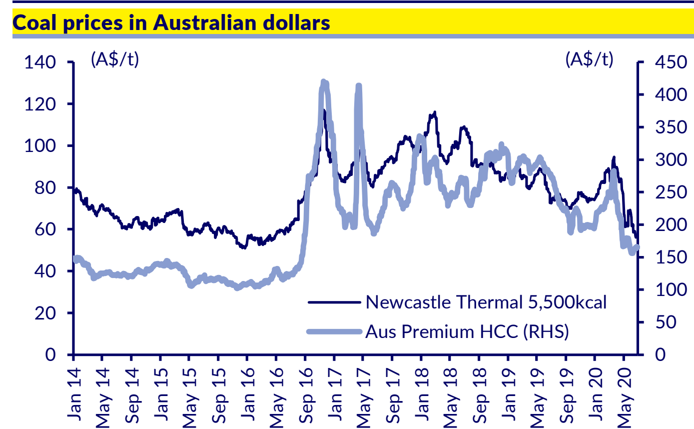
Coal prices in US dollars



Source: CLSA, Platts, Bloomberg

Figure 26

Coal prices in Australian dollars



Source: CLSA, Platts, Bloomberg

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Prices are now consistent with 2015/16 lows and near marginal costs. There has been some benefit from lower oil prices as it helped the curve (fuel key production input).

Thermal coal

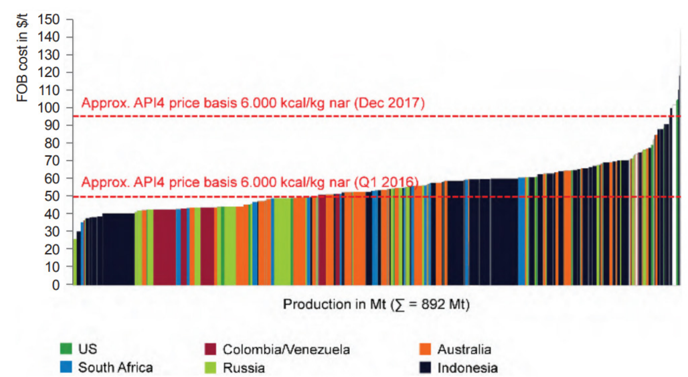
Thermal coal marginal costs are about US$40/t for first quartile producers vs spot at US$39/t for 5500kcal and US$50/t for 6000kcal.

Coking coal

HCC marginal costs are about US$130/t. Australian coal is the most competitive, with marginal costs likely at about US$100/t vs spot at US$114/t.

Figure 27

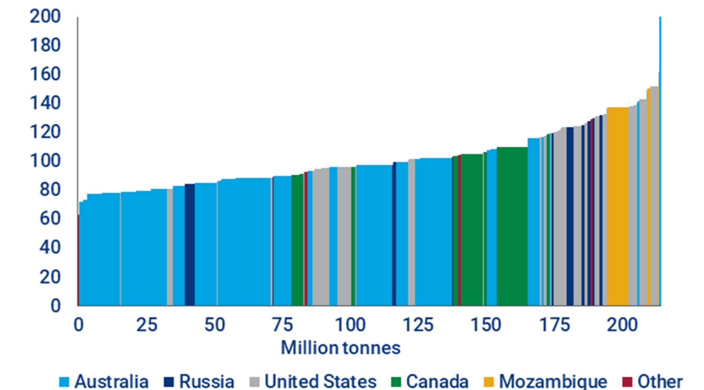
Thermal coal cost curve 2017 (FOB US$/t)



Source: HMS Bergbau Group, CRU

Figure 28

Seaborne HCC cash cost curve 2019 (US$/t)



Source: WoodMackenzie

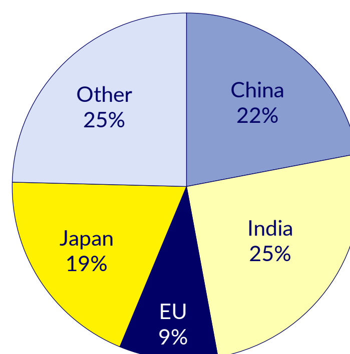
Australian coal demand outlook is soft

Australia's metallurgical (met) coal production is almost all used for exports and to countries such as India, China and Japan. The demand outlook for met coal over the next two years is soft with steel production expected to be weak, ex China.

China and India key markets for met coal exports

Figure 29

Australian metallurgical coal export volumes, 2019



Source: CLSA, Department of Energy and Resources

The World Steel Association forecast 2020 steel production to be down 6% followed by a 4% recovery in 2021. It expects China to rise 1% in 2020 and be flat in 2021 while production for the rest of world decreases 14% in 2020 and increases 10% in 2021, implying ex-China steel production in 2021 to be equivalent to 2015 levels. Japan and India are expected to be down 18% and 19%, respectively, in 2020.

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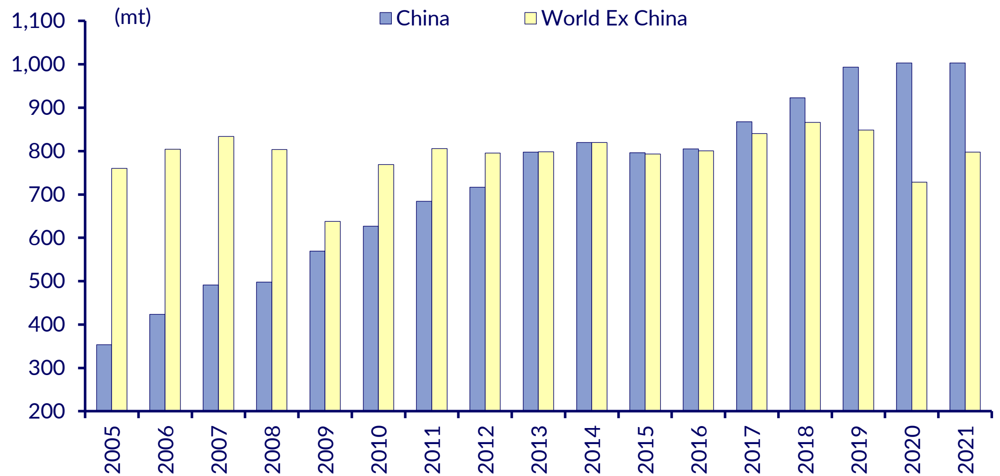
Recent feedback from coal producers and traders suggests that demand has been exceptionally weak given India's sharp declines (despite some mills coming back online). This has been partially offset by Vietnam becoming a net importer for coking coal but there are questions over how sustainable this can be.

Steel demand outlook challenged

Figure 30

World steel production forecasts



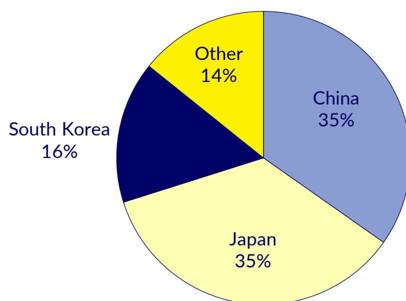
Source: CLSA, World Steel Association

Reduced energy consumption

Thermal coal demand will be heavily impacted in the short term by reduced energy consumption, both offshore and domestically.

Figure 31

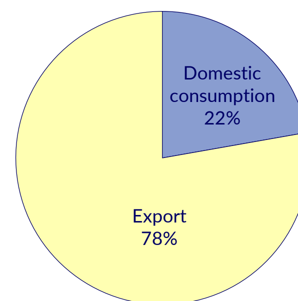
Australian thermal exports, 2019



Source: Department of Energy and Resources

Figure 32

Thermal coal by consumption



Source: Department of Energy and Resources

Coal power station demand set to decline 8% in 2020

According to the International Energy Agency (IEA), "any increased residential demand has been far outweighed by reduced commercial and industrial operations". This is seen in electricity demand in Figure 33. The IEA forecast a c.8% fall in power station coal demand globally in 2020 with China to decrease 5%, Japan to drop 10% and India to decline even more significantly given the lockdowns. The forecasts are from April so there is some potential upside as activity appears to be improving, but demand should still remain clearly negative.

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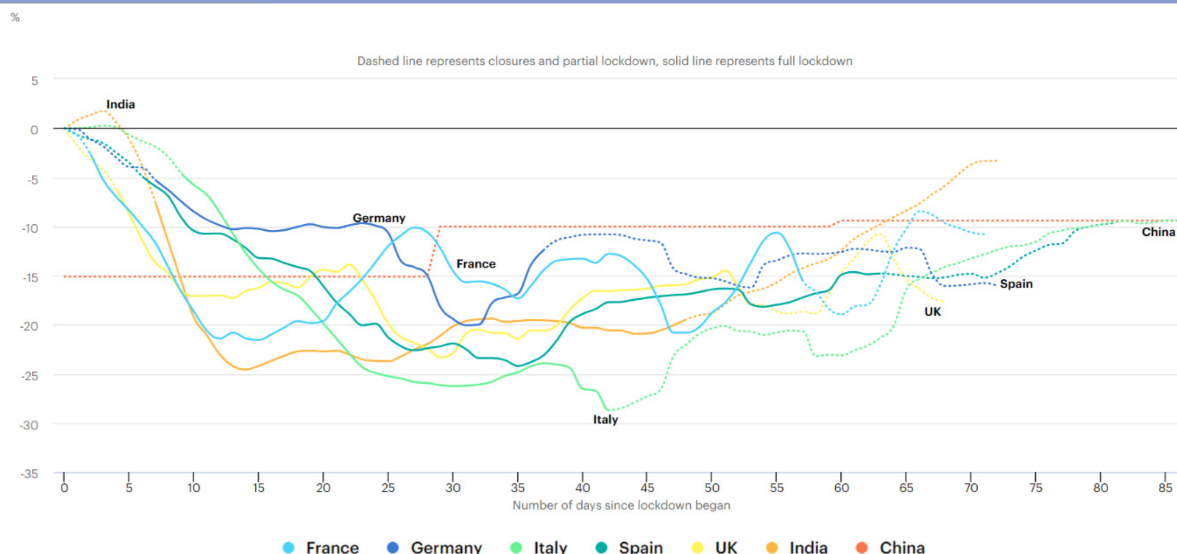
Figure 33

IEA % reductions in electricity demand after implementing lockdown measures



Source: International Energy Agency

China import quota restrictions add a further headwind

Compounding weak demand is China's import quota restrictions, which appear to be set at c.270mt of coal (of which >60% of the global quota has been used), and deteriorating Australia-China relations. This seems more challenging for thermal coal due to China's reliance on exports and mills' requirement for high quality coking coal.

Situation looking a lot like 2015/16

Further cost cutting likely from miners

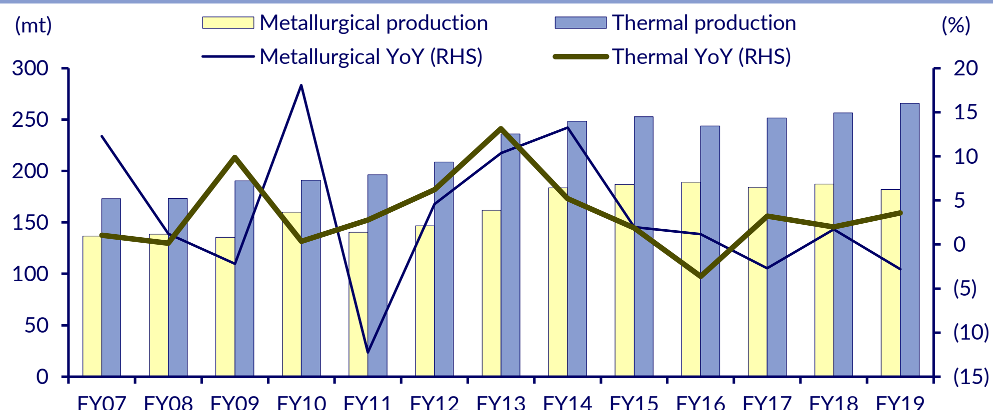
Australian coal production is looking similar to 2015/16. During this period, there was some slight softness for thermal coal in FY16 and metallurgical in FY17, but production held up relatively well given cost curve positions. Recent feedback suggests that production is likely to hold up in the near-term, but the risk would be moving into 2021. We also expect miners to re-examine the supply chain to reduce costs.

Anecdotal evidence suggests that most mines' cost-out programs through FY14-16 have left Australian mines operating very efficiently. During the last downturn, few companies in the mining supply chain were spared. Several services were taken in-house, including contract mining and procurement. With little left to squeeze, we believe most suppliers, even AN, may be at risk.

Australian Coal production looks challenged

Figure 34

Australian coal production



Source: CLSA, Department of Energy and Resources, NSW Mining, QLD department of natural resources, mines, energy

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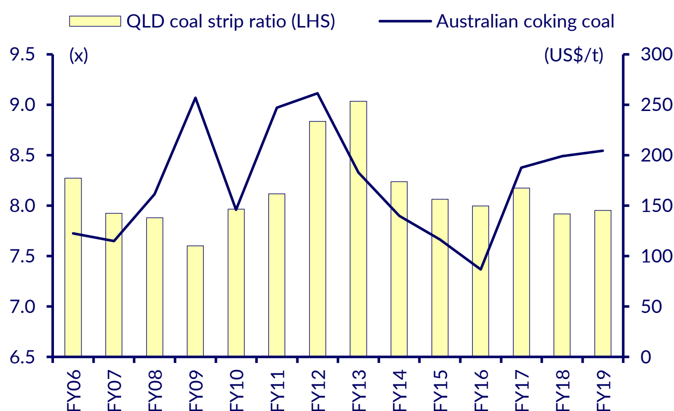
Lower strip ratios could have significant impact

Material moved exacerbates impact

Coal production is important but material moved is key for AN volumes. Queensland coal strip ratios have been relatively steady over the past three years and New South Wales strip ratios have been increasing (impacted by shift to open cut mining). While cutting production may not be a major response from high fixed-cost Australian coal miners, reduced strip ratios would be the logical cost-cutting measure. However, they exacerbate the production impact on AN demand. This was seen in met coal during 2015-16.

Figure 35

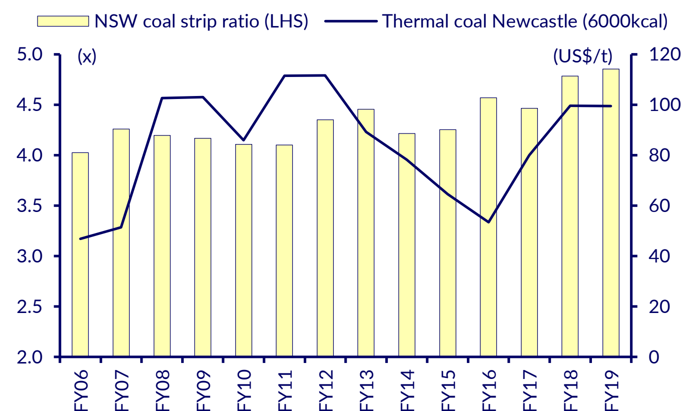
Queensland coal strip ratio



Source: CLSA, QLD Department of Mines

Figure 36

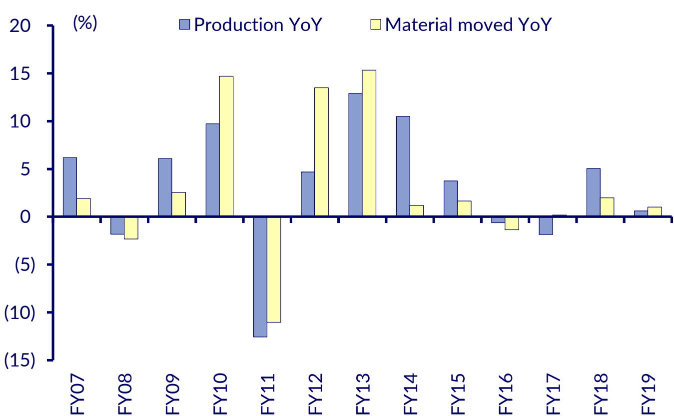
New South Wales coal strip ratio



Source: CLSA, NSW Coal Services

Figure 37

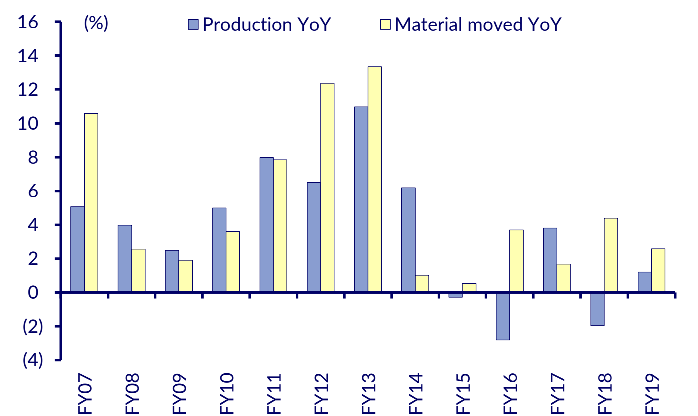
Queensland coal movements



Source: CLSA, Queensland Department of Mines

Figure 38

New South Wales coal movements



Source: CLSA, New South Wales Coal Services

Impact to Orica/Incitec Pivot

We expect Australian coal to face weakness across met and thermal, with risk potentially skewed more to thermal coal. Our Orica Asia Pacific volumes are down 2% in FY21 after guidance for FY20 appeared to remain mid-single digit. Incitec Pivot's volumes are down 3% in FY21 but this is also affected by the four to six week major turnaround at Moranbah. While coal usually consumes lower margin products (more bulk AN) the volume impact on production and operating leverage could pressure margins.

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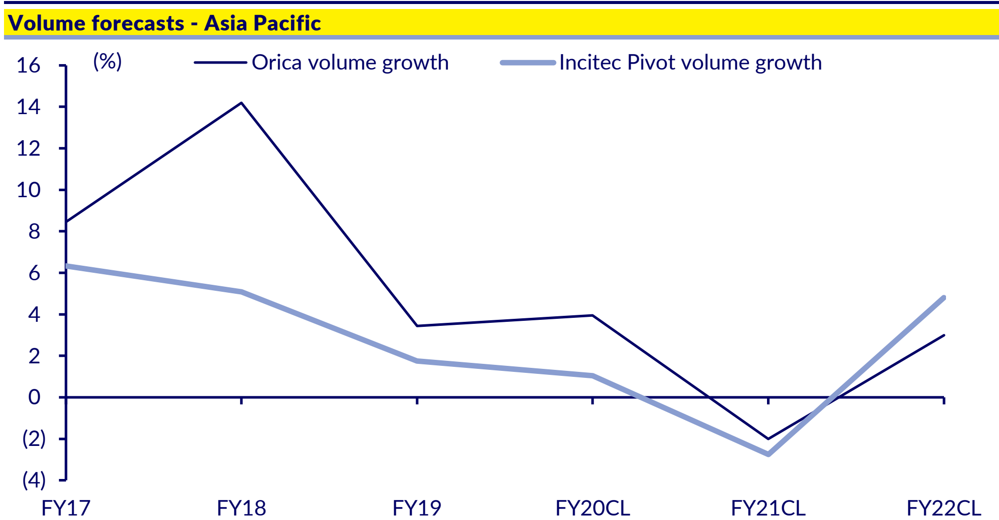
Our volume forecasts assume coal weakness, with continued growth in iron ore, copper, gold and other minerals

Figure 39

Volume forecasts - Asia Pacific



Source: CLSA, Orica, Incitec Pivot

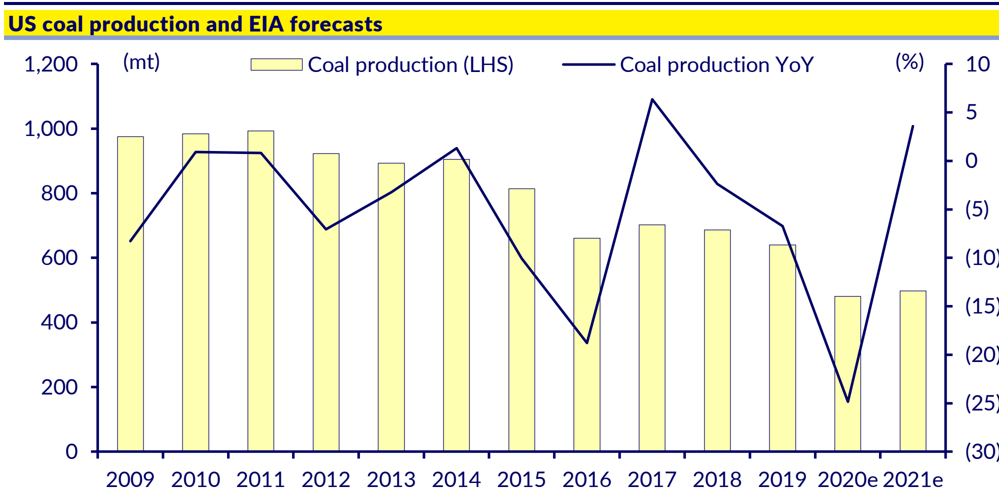
US coal challenged by gas

The USA saw a significant reaction from coal miners (which is majority thermal), with production falling 10% in 2015 and down a further 19% in 2016 when prices were at similar levels.

US coal challenges well understood, but how much worse could it get

Figure 40

US coal production and EIA forecasts



Source: CLSA, US Energy Information Administration historical data and forecast

Very weak US coal production

US coal production was down 17% in 1QCY20 and worsened to c.40% in April-June, driven by lower consumption from coal-powered stations. The US Energy Information Administration expects coal consumption to fall 33% in 2020 and grow +19% in 2021. In comparison, total electric power sector generation is forecasted to be down 6% in 2020 as there is a natural switch to gas given low prices. Since January, thermal coal prices have been higher than natural gas, even ignoring higher transportation costs and carbon output reducing generation efficiency.

In our view, this likely only accelerates the structural decline in thermal coal in the USA, which will continue to challenge Incitec Pivot AN volumes. We forecast its coal volumes to fall 16% in FY20 and be down a further 5% in FY21. We expect flat volumes thereafter, which assumes that the company wins share in a structurally declining market.

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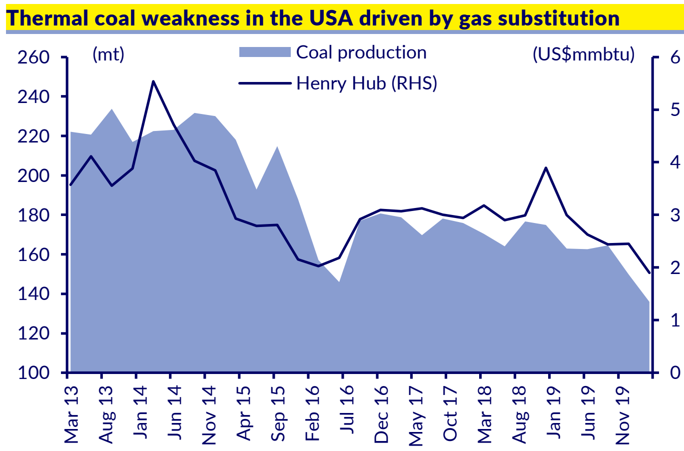
Figure 41

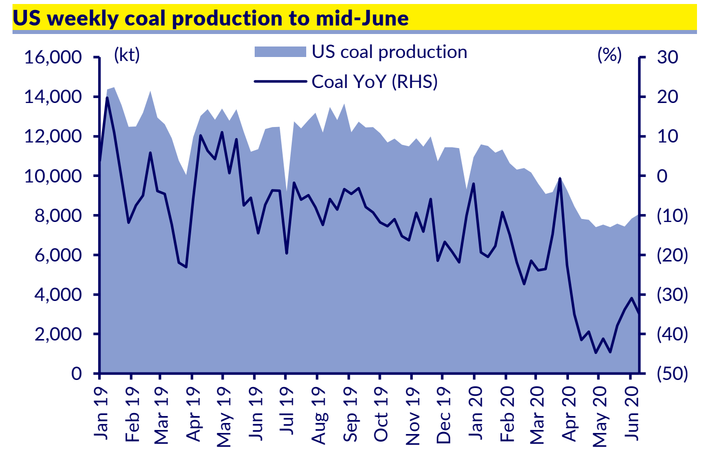
Thermal coal weakness in the USA driven by gas substitution



Source: CLSA, EIA, Bloomberg

Figure 42

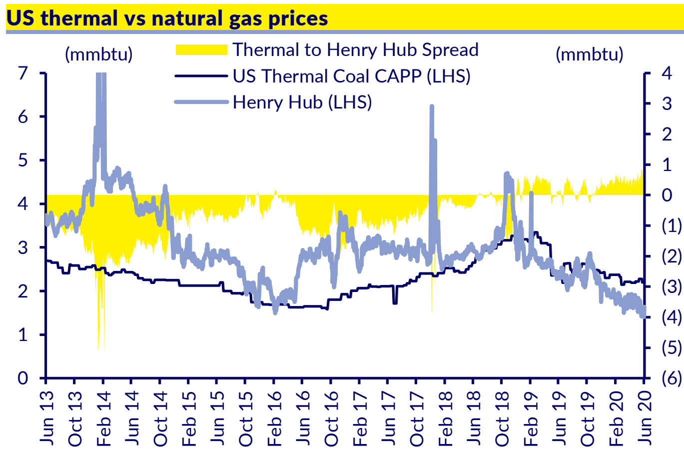
US weekly coal production to mid-June



Source: CLSA, EIA

Figure 43

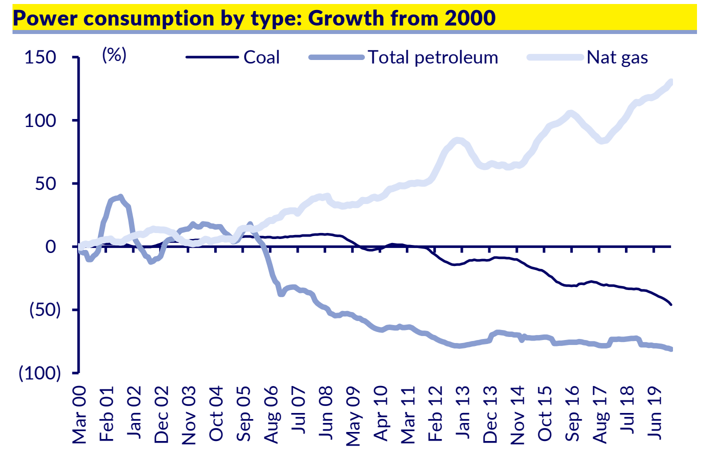
US thermal vs natural gas prices



Source: CLSA, FactSet. Thermal coal = Central Appalachia prices

Figure 44

Power consumption by type: Growth from 2000



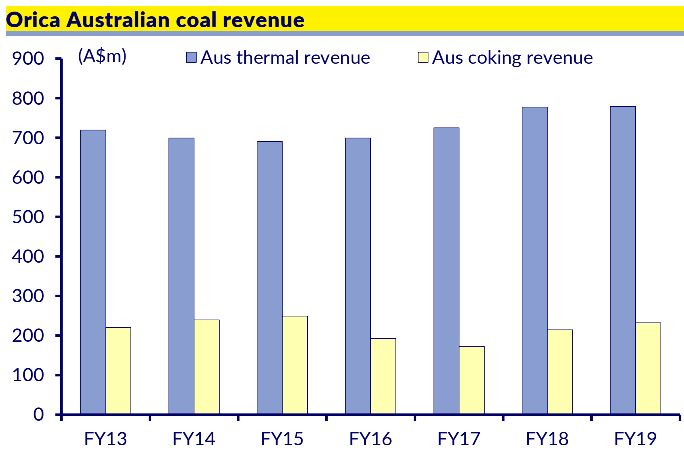
Source: CLSA, EIA

Orica and Incitec Pivot in the last downturn

The trend in production and material moved for thermal and coking coal is evident in Orica's and Incitec Pivot's earnings.

Figure 45

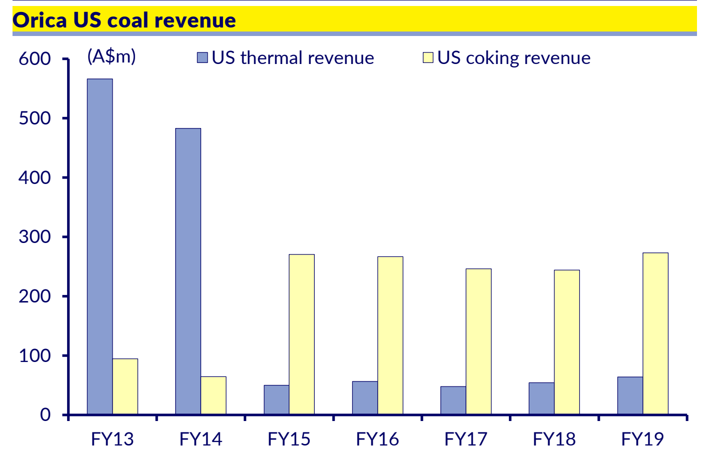
Orica Australian coal revenue



Source: CLSA, Orica

Figure 46

Orica US coal revenue



Source: CLSA, Orica

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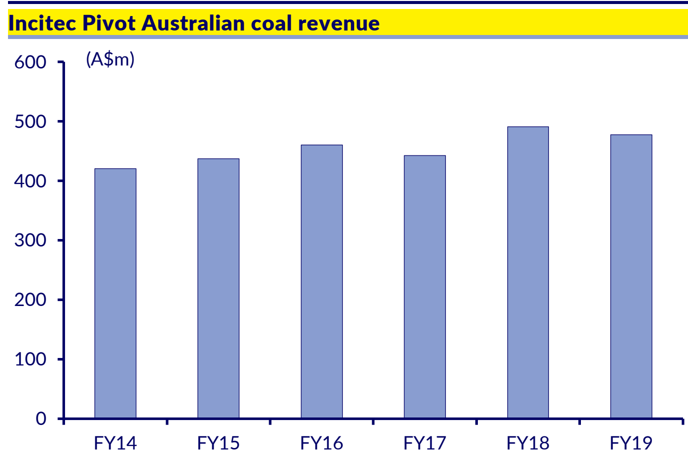
Figure 47

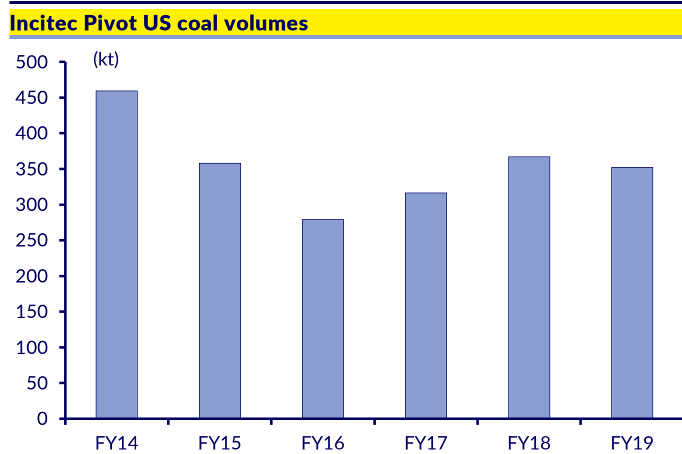
Incitec Pivot Australian coal revenue



Source: CLSA, Incitec Pivot

Figure 48

Incitec Pivot US coal volumes



Source: CLSA, Incitec Pivot

Company outlook for coal

We note the following commentary from relevant coal producers and industry bodies that confirms coal's downward trend:

South32

Industry magazine *Australian Mining* reports that **South32** has slashed hundreds of contractor jobs, largely from the Appin coal mine. A spokesperson said that "it was also in response to uncertainty due to Covid-19, coupled with lower pricing and demand for met coal".

Coronado

Coronado has reduced total capital expenditure by 40%, which includes deferring expansion plans for Curragh.

Fitzroy Resources

Fitzroy is cutting 160 contract positions at the Carborough Downs operation in Queensland as a direct result of Covid-19, noting large drops in price and demand for coking coal.

US EIA

US EIA forecasts a 25% decline in 2020 US coal production and a modest 4% increase in 2021, driven by lower electric power consumption due to low natural gas prices.

Emeco utilisation and guidance

Emeco provided FY20 guidance in May 2020 that was below our already downgraded forecasts from risks to coal. According to the company, "Covid-19 has impacted our 2H20 earnings through some additional costs and the fall in coal price resulting in a reduction in utilisation in the Eastern Region". We view this as a more significant risk moving into FY21 and expect any softer outlook on production to first be reflected in contractors dialling back the use of rental equipment. Examination of coal miner quarterlies suggests pressure is building across Queensland and New South Wales, so there may already be some demand softness for EHL's assets. Please see *Emeco - O-PF (Short-term pain; medium-term gain).*

New Hope

According to **New Hope**, "thermal coal demand and price has dropped sharply since the beginning of April, which will negatively impact financial results for the company in the second half of this financial year. Australia was the only major exporting country to increase supply in the first quarter of the calendar year, climbing 2.6Mt to 51.8 Mt. However, since the start of April several Australian producers have announced supply reductions due to recent pricing". New Hope will undergo an 80 day maintenance shutdown at Bengalla in New South Wales commencing July 2020.

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Peabody

Peabody is undergoing a 59-day shutdown at the Wambo underground mine in the Hunter Valley starting from 1 June 2020 to align production with current demand.

Wood Mackenzie

As of mid-May, thermal coal prices were c.US$40-50/t (5500-6000kcal) and met coal were US$110/t. **Wood Mackenzie** believed that at those levels (similar to spot), 31% of Australian thermal exports and c.10% of Australian coking coal exports had negative margins.

NSW Coal producers set up for collective negotiations with Port of Newcastle

Australian Mining reports that the Australian Competition and Consumer Commission (ACCC) proposed to authorise the New South Wales Minerals Council and 10 coal producers (including Glencore, Whitehaven, Yancoal, Peabody and others) to collectively negotiate terms and conditions of access to the port of Newcastle.

Thiess (CIM)

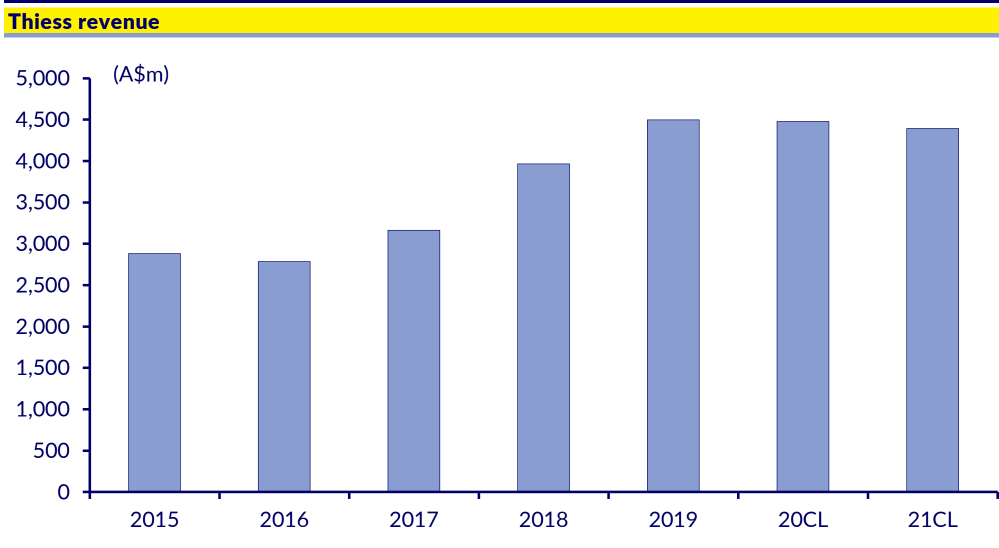
We expect risks emerging from 2021 due to the significant growth experienced coming out of the 2016 trough (14% Cagr). Thiess is the largest contract miner in Australia and coal is its biggest exposure. We view it as a vital proxy for overall material moved on the east coast. Thiess operates at the following locations:

- QCoal Northern Hub
- Curragh
- Jellinbah Plains
- Mount Pleasant
- Dawson South
- Yallourn
- Mt Owen
- Peak Downs/Caval Ridge
- Lake Vermont
- Mount Arthur

Revenue Cagr of c.12% ex-Sedgman

Figure 49

Thiess revenue



Source: CLSA, CIM

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Coal weakness could exacerbate an already oversupplied AN market

Australian AN market oversupply could be exacerbated

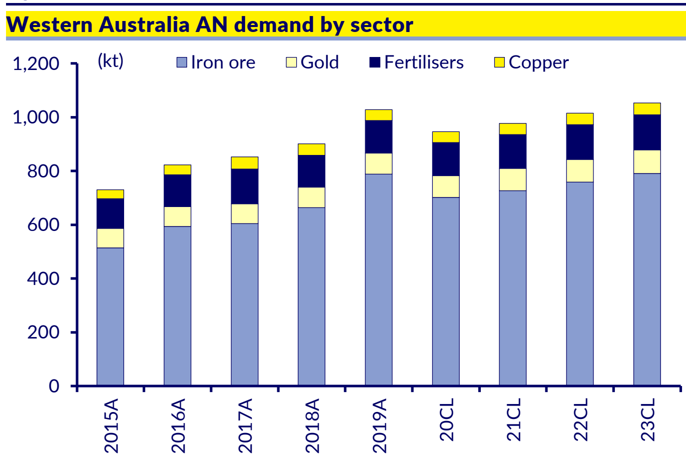
The Australian ammonium nitrate (AN) market appeared to be going into oversupply pre-Covid as Orica's Burrup would add c.300kt of capacity into the 2.3mt market. While Western Australia (WA) will continue to be oversupplied, there are increasing risks to the east coast balance if coal demand starts to decline. This could pose a risk to the expected upside potential for price in the FY21/22 re-contracting periods.

WA will shift into oversupply

With Orica expecting Burrup to be running at normalised run-rates by the start of FY21 (c.300kt), the Western Australian AN market will likely move into oversupply in the short-medium term. We expect the market to be c.8-11% oversupplied in FY21 and FY22, gradually decreasing as gold and iron ore production continues and strip ratios increase.

Figure 50

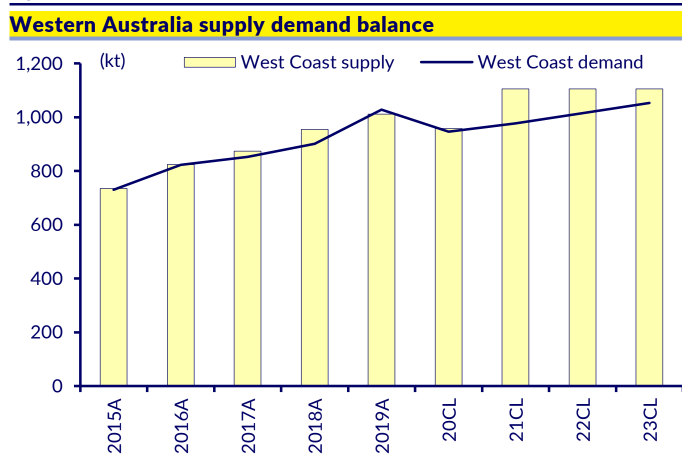
Western Australia AN demand by sector



Source: CLSA, WES, Orica, Incitec Pivot

Figure 51

Western Australia supply demand balance



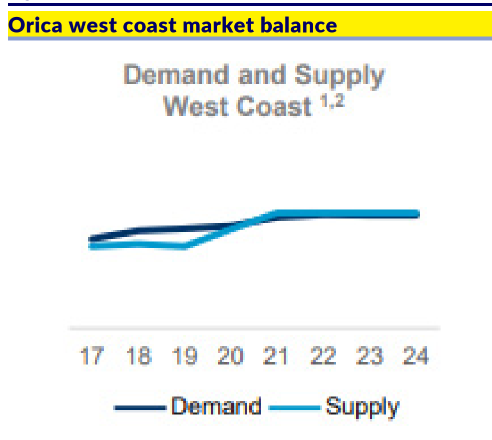
Source: CLSA, WES, Incitec Pivot, Orica

AN demand in 2019 was strong, supported by the ramp up of the Pilbara replacement projects. We expect FY21 incremental AN demand to increase c.30kt as iron ore returns to more normalised levels.

Pre-Covid, Orica expected west Australia to be in oversupply and the east in balance

Figure 52

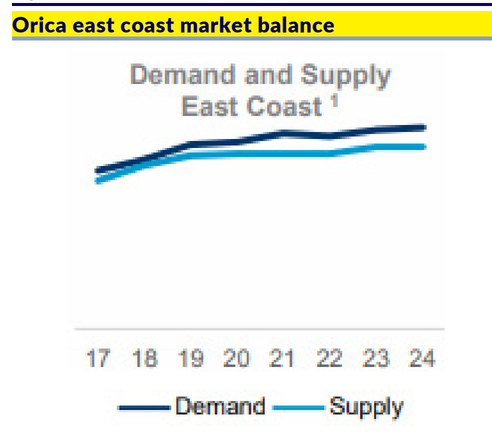
Orica west coast market balance



Source: Orica

Figure 53

Orica east coast market balance



Source: Orica

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Orica and CSBP both expect the WA AN market to be in oversupply for the next c.2 years. While Burrup will add 300kt of capacity to WA (c.200kt incremental in FY21), this is partially offset by Orica stopping imports from Indonesia and Yarwun which we assume c.150kt in total. The net impact is we expect FY21/22 to be oversupplied by 11/8% before returning closer to balance in FY23/FY24.

What will CSBP do?

CSBP actions

CSBP believes the Western Australian market will be oversupplied in the short to medium term before returning to balance in the mid-2020s. Given Burrup is fully contracted, the supply will sit with CSBP. As a result, the company experienced price drops in FY19 and openly stated that it would need to find incremental demand for explosive-grade ammonium nitrate (EGAN) or place tonnes into urea ammonium nitrate (UAN) once long-term contracts begin to roll off. The risk is that CSBP will pull the price lever to win share for the remaining tonnes. See page 28 for WA supply and demand forecasts. There are a number of considerations with respect to CSBP's response:

- CSBP is already short ammonia (250kt imported), therefore the margin on back to ammonia vs back to gas production will likely influence the decision to pull back utilisation.
- CSBP can either produce AN for explosive grade or push more into the fertiliser market. The Western Australian nitrogen fertiliser market is c.400kt (120kt UAN; 280kt solids). In our view, there might not be enough demand to place the incremental tonnes for CSBP (unless it shifts to east) and this would not be preferred given significantly higher volatility in fertiliser pricing and demand, and lower price received on fertiliser-grade ammonium nitrate (FGAN) vs EGAN (c.US$200/t difference using benchmark prices).
- CSBP can shift EGAN tonnes from west to east. In our view, this is the most likely scenario and appears to be the case already. This could be a problem in the east. If there is any commodity that appears at risk in Australia, it is east coast coal.

What happens to the east coast?

See Page 29 for east coast supply / demand forecasts

The east coast market will have to accommodate for Orica's Yarwun tonnes no longer being sent to the west (c.70kt) and some switching from CSBP sending tonnes from west to east. This comes at a time when our largest concern for Australian AN is a weak coal outlook for both met and thermal coal. We expect mine plans to be reviewed into FY21, which could see flat to negative production but, more importantly, reduced strip ratios.

Incitec Pivot was planning to expand Moranbah to 400-420kt (from 380kt) in FY21 for FY22+. This has since been deferred and given our market balance expectations, we push out the expansion to FY23.

BHP likely to reduce costs

BHP's Queensland Coal (BMA & BMC) strip ratios are expected to drift lower, which will be a headwind for Incitec Pivot (and potentially ORI's Yarwun) given BHP Queensland Coal accounts for >40% of material moved in the region. We expect more marginal producers to be impacted by the recent coal price weakness (as seen from page 15). Even if more marginal producers did not pull back strip ratios, BHP's guidance alone will limit any material growth in the region moving forward.

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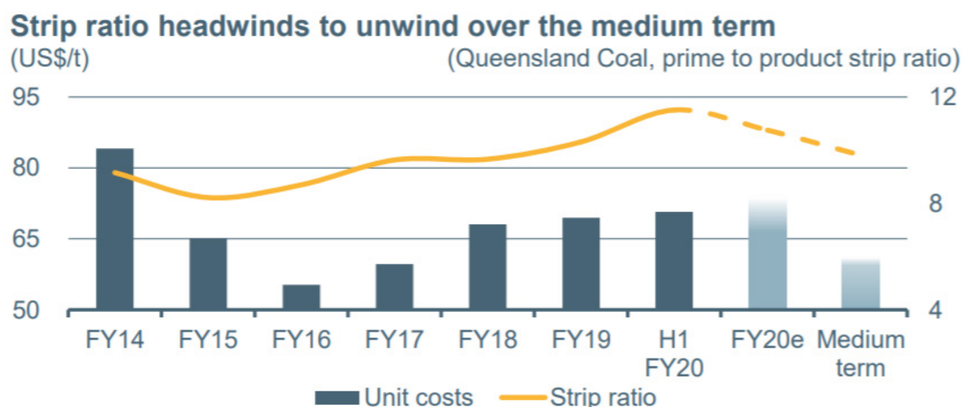
Strip ratios a key lever to manage margin

Figure 54

BHP Queensland coal strip ratios heading lower



Source: BHP

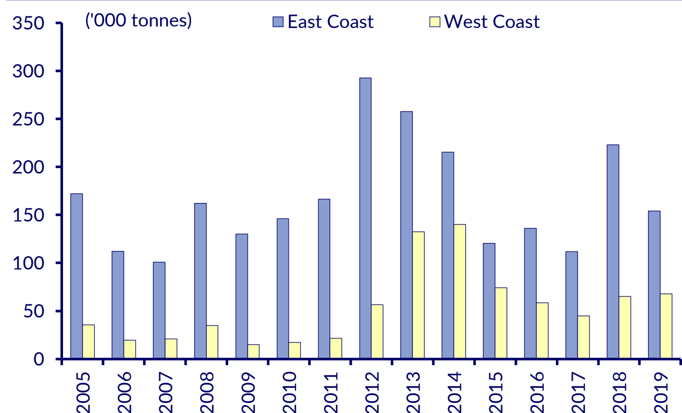
Australian market should be rational but upside risk may be limited

Our base case is pricing is relatively stable over the next two years. We believe the most likely scenario is WA is in oversupply for the next two years and the East could be in slight oversupply, depending on how significant recent coal weakness becomes. The more likely scenario is for utilisation to be pulled back slightly. WA has been expected to push into oversupply for years; miners already re-contracted lower with CSBP in FY19. Combined with the fact it is not in CSBP's interest to send AN prices lower, we would expect the market to remain rational.

This is likely a best case scenario. Downside risks may remain with respect to market balances and pricing on both the west and east coast, in our view. It is difficult see upside risk especially given the difficulty in predicting the reaction from offshore imports, which should be displaced by Yarwun etc. Imports for the first four months of 2020 have been slightly below average monthly levels (not withstanding significant volatility) but should come back further.

Figure 55

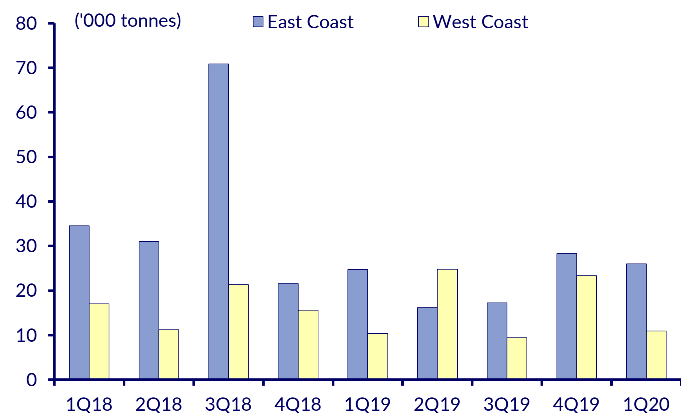
Australian AN imports



Source: CLSA, CRU, ABS

Figure 56

Australian AN imports - quarterly



Source: CLSA, CRU, ABS

Australian IPP pricing

Since pricing was set two to three years ago when IPP prices were low (impacted by import dumping - since resolved), both companies expect to see positive price effects to come through in the next round. As seen in Figure 57, IPP pricing in 2016-17 averaged c.A$400/t (ranging from A$350-450/t).

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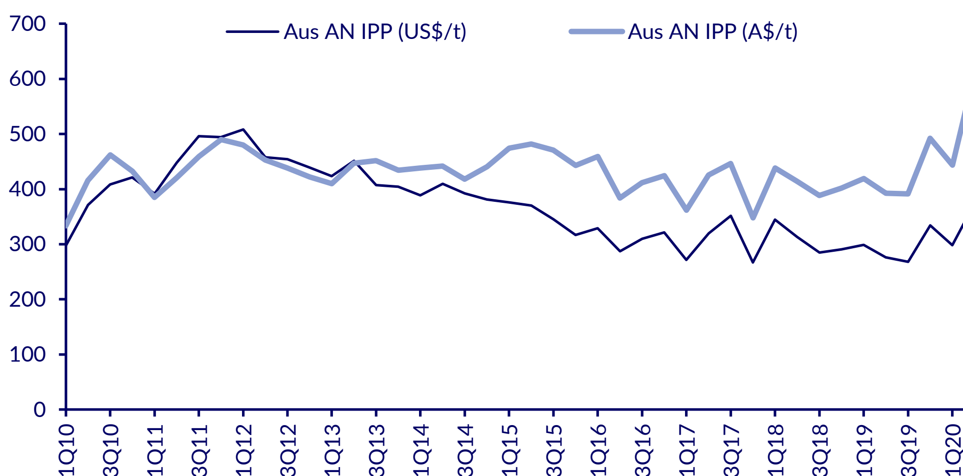
IPP price support vs low bargaining power with customers

Figure 57

Australian AN IPP pricing



Note 2Q20 = April 2020. IPP adjusted for low volume trades and outlier pricing. Source: CLSA, CRU

IPP price movements

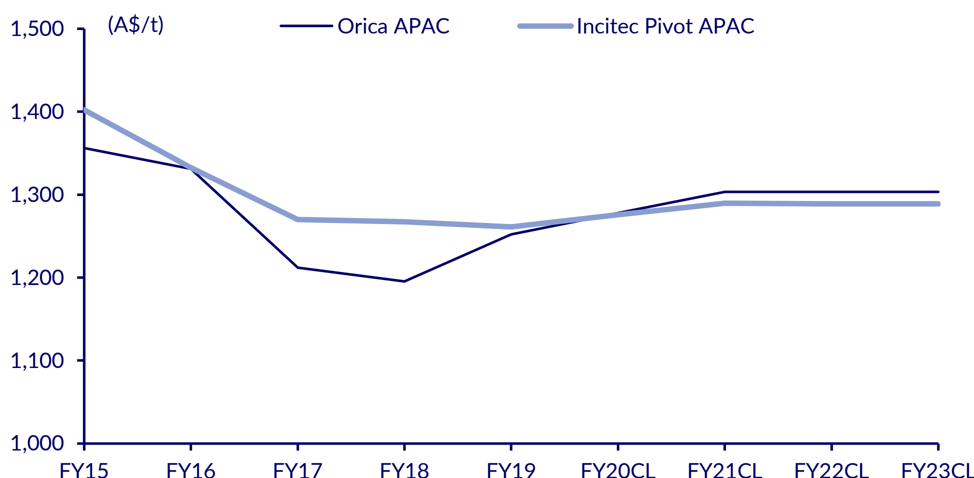
IPP prices sit at c.A$600/t in April, helped by the 0.61c A$/US$ exchange rate but MoM movements are highly volatile. At current FX, IPP prices are more likely to be around A$500/t. However, benchmark fertiliser grade AN prices have fallen c.25% since March given weak explosives demand in Russia leading to a ramp up of FGAN exports. Swedish AN IPP pricing looks to be stable in May (Sweden only EGAN so the most useful EGAN benchmark) but it is likely that AN IPP will soften.

IPP sitting at c.A$100/t over 2016-17 could be a positive for Orica and Incitec Pivot. About 15% of Orica's Australian book is re-contracting in FY20 and c.40% in FY21 while the majority of Incitec Pivot's book is re-contracting in the next two to three years. However, there are a number of issues to work through, including how long AN prices will sit at low levels given the demand outlook, a potentially oversupplied Australian AN market and whether the companies can get significantly more price from the majors while customers try to reduce costs. We do not include the upside, with average sale prices (ASP) stable.

We do not include price upside with ASPs stable

Figure 58

Orica/Incitec Pivot Asia Pacific average sale price



Source: CLSA, Orica, Incitec Pivot

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Figure 59

Western Australia demand supply balance

	2015A	2016A	2017A	2018A	2019A	20CL	21CL	22CL
Capacity (kt)								
Kwinana	780	780	780	800	825	825	825	825
Burrup	0	0	330	330	330	330	330	330
Total West Coast	**780**	**780**	**1,110**	**1,130**	**1,155**	**1,155**	**1,155**	**1,155**
% change		0.0	42.3	1.8	2.2	0.0	0.0	0.0
Production (kt)								
Kwinana	649	769	781	849	842	825	825	825
Burrup	0	0	36	20	40	100	300	300
Total West Coast	**649**	**769**	**817**	**869**	**882**	**925**	**1,125**	**1,125**
% change		3.3	5.0	(5.2)	5.3	4.5	21.1	0.0
Utilisation (%)								
Kwinana	83	99	100	106	102	100	100	100
Burrup	0	0	11	6	12	30	91	91
Total West Coast	**83**	**99**	**74**	**77**	**76**	**80**	**97**	**97**
Demand (kt)								
Iron ore	514	594	604	663	788	702	727	759
% change		15.6	1.7	9.8	18.8	(10.9)	3.6	4.3
Gold	73	74	75	77	79	81	83	85
% change		0.5	1.3	2.6	3.2	2.5	2.5	2.5
Copper	32	37	44	43	41	41	42	43
% change		14.0	20.3	(3.9)	(4.9)	0.0	3.0	3.0
Fertilisers	110	119	129	119	121	123	126	128
% change		7.4	9.1	(8.2)	2.0	2.0	2.0	2.0
Total West Coast	**730**	**823**	**852**	**901**	**1,029**	**947**	**978**	**1,015**
% change		12.8	3.6	5.7	14.1	(8.0)	3.3	3.8
Market balance (kt)								
West Coast production	649	769	817	869	882	925	1,125	1,125
West Coast net imports	86	55	57	86	130	33	(20)	(20)
West Coast supply	**735**	**824**	**874**	**955**	**1,012**	**958**	**1,105**	**1,105**
West Coast demand	**730**	**823**	**852**	**901**	**1,029**	**947**	**978**	**1,015**
Balance	(5)	(1)	(22)	(54)	17	(11)	(128)	(90)
Balance % of capacity	(1)	0	(2)	(5)	1	(1)	(11)	(8)

Source: CLSA, WES, Incitec Pivot, Orica, CRU, Department of Energy & Resources

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Figure 60

East coast demand supply balance

	2015A	2016A	2017A	2018A	2019A	20CL	21CL	22CL
Capacity (kt)								
Yarwun	530	530	530	530	530	530	530	530
Kooragang Island	430	430	430	430	430	430	430	430
Moura	215	215	215	215	215	215	215	215
Moranbah	330	330	330	380	380	380	380	380
Total East Coast	**1,505**	**1,505**	**1,505**	**1,555**	**1,555**	**1,555**	**1,555**	**1,155**
% change		0.0	0.0	3.3	0.0	0.0	0.0	0.0
Production (kt)								
Yarwun	310	247	264	334	398	451	451	451
Kooragang Island	370	372	378	363	368	366	366	366
Moura	211	209	209	209	209	209	209	209
Moranbah	310	345	321	371	365	366	344	372
Total East Coast	**1,201**	**1,172**	**1,172**	**1,277**	**1,339**	**1,390**	**1,368**	**1,368**
% change		(2.4)	0.0	8.9	4.9	3.9	(1.6)	2.1
Utilisation (%)								
Yarwun	59	47	50	63	75	85	85	85
Kooragang Island	86	87	88	85	86	85	85	85
Moura	98	97	97	97	97	97	97	97
Moranbah	94	105	97	98	96	96	91	98
Total East Coast	**80**	**78**	**78**	**82**	**86**	**89**	**88**	**90**
Demand (kt)								
Coal	883	889	889	924	934	927	903	903
% change		0.7	0.0	3.9	1.1	(0.7)	(2.6)	0.0
Gold & Copper	168	196	203	210	221	227	234	241
% change		17.0	3.2	3.6	5.1	3.0	3.0	3.0
Other	247	217	235	205	199	199	199	199
% change		(12.3)	8.6	(12.9)	3.0	0.0	0.0	0.0
Total East Coast	**1,298**	**1,302**	**1,327**	**1,338**	**1,353**	**1,353**	**1,336**	**1,343**
% change		0.4	1.9	0.9	1.1	0.0	(1.3)	0.5
Market balance (kt)								
East Coast production	1,201	1,172	1,172	1,277	1,339	1,390	1,368	1,397
East Coast net imports	40	51	68	118	10	18	20	20
East Coast supply	**1,241**	**1,223**	**1,239**	**1,394**	**1,348**	**1,408**	**1,388**	**1,417**
East Coast demand	**1,298**	**1,302**	**1,327**	**1,338**	**1,353**	**1,353**	**1,336**	**1,343**
Balance	**56**	**80**	**88**	**(56)**	**5**	**(55)**	**(52)**	**(74)**
Balance % of capacity	4	5	6	(4)	0	(4)	(3)	(5)

Source: CLSA, WES, Incitec Pivot, Orica, CRU, Department of Energy & Resources

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Underweight the sector

We have a bearish stance on Australian chemicals

Although Incitec Pivot appears to be a solid turnaround story, we believe its opportunities are already captured in earnings forecasts and the stock could be a value trap. In our view, Orica's return profile and low growth outlook may not justify its 19x FY21CL PE. Our target price for Incitec Pivot is A$1.96 based on a SOTP analysis while Orica's target is A$17.10 based on a blended DCF/SOTP analysis and we rate them Underperforms.

Credit analysis

There are several considerations for leverage levels appropriate to Orica and Incitec Pivot, including but not limited to:

- Exposure to economic cycles for the regions in which their products are produced and sold as well as global economic cycles.
- Supply/demand dynamics or regional policies, such as tariffs, can significantly affect supply and demand globally.
- Supply and price risk from raw materials, which typically represent the largest component of commodity producers' operating expenses. Orica and Incitec Pivot have significant exposure to crude oil and natural gas prices because their key raw materials are derived from petroleum.
- Capital spending: The industry is very capital intensive and pay-backs are longer term so the timing of investment and balance sheet headroom are important considerations through cycles.

Qualitative considerations

Scale

Scale is an important indicator of a company's revenue-generating capability and its resilience to shocks, as evidenced in the most recent demand shock from government mandated lockdowns of various geographies around the world.

Scale can also influence market strength and the availability of capital; provide resilience to changes in product demand, cost absorption, research and development capabilities; and, most importantly, provide companies with the ability to service large customers globally, which is an important consideration as many customers are currently seeking to reduce their number of suppliers.

Business profile

Companies with higher levels of volatility in cashflow are typically more susceptible to other types of risks, including new forms of competition. Technological leadership and market position prospects are other important factors for Orica and Incitec Pivot, which can reduce volatility through economic cycles.

A diverse product mix and geographic diversity can reduce a company's exposure to new competitors or other adverse market developments. Geographic diversity helps mitigate a chemical company's operational risks, for example: a company with multiple plants in the same area generally faces greater operational risks than a company whose production facilities are dispersed.

The ability to locate production facilities where they can benefit from low-cost raw materials are generally at an advantage during supply and demand imbalances, when raw material price movements can impact margins. This can mitigate some of the risks of higher raw material costs on overall margins and provide a cost advantage over competitors.

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Technology

Technological leadership has become one of the more important factors to discriminate between largely commoditised product offerings. The bundling of technological goods in blasting systems has the potential to differentiate product offering, but largely to date appears to be marginal. The larger end of the mining industry that appears to be consolidating will also prefer to shrink the number of suppliers and technology will be an important driver (along with cost) in this process.

Moody's ratings for reference

> 'Aaa - Expected to have highly stable cashflow generation through industry and economic cycles supported by highly diverse specialty product lines with dominant market positions, no concentration of cashflow sources, stable end markets, global leading/low cost operations and structural cost advantages; technological leadership limits threats to competitive position and supports improving existing market positions and new market opportunities'.
>
> 'Caa - Expected to have extremely volatile cashflow generation, a single commodity product line sold to few customers for a single use; OR an insignificant market position with many large competitors, concentrated exposure to a small cyclical market and uncertain demand; OR no pricing power, and a single operating site that has a very uncompetitive cost structure; OR severe structural and technological disadvantages'.

Moody's ratings

Financial metric comparison

Relevant to Moody's credit ratings, we compare the financial metrics of Orica and Incitec Pivot.

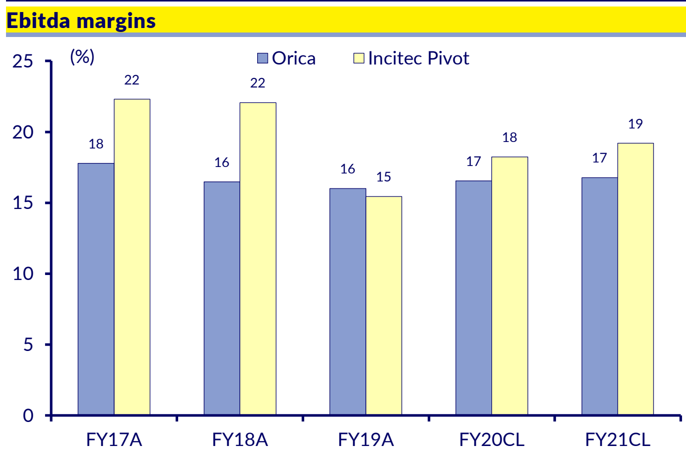
Ebitda margins

Incitec Pivot has higher margins and operating leverage

Incitec Pivot has higher margins than Orica given the higher manufacturing skew whereas Orica purchases a relatively high amount of AN requirements (c.60% of US requirements and all of LATAM and Europe), which dilutes the margin. In addition, Incitec Pivot's plants are skewed to back to gas production vs Orica back to ammonia (ex Kooragang Island). As a result, Incitec Pivot will enjoy greater operating leverage but will also face significantly higher margin volatility.

Figure 61

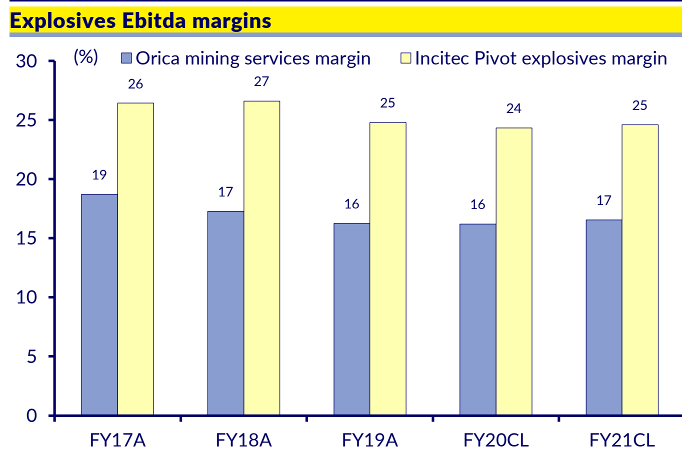
Ebitda margins



Source: CLSA, Orica, Incitec Pivot

Figure 62

Explosives Ebitda margins



Source: CLSA, Orica, Incitec Pivot

Returns and debt

Orica has higher returns and a better balance sheet

Orica consistently delivers higher returns, which is partly attributable to its more capital light structure with less AN manufacturing. Burrup's asset base (without producing until 2H20) dilutes Orica's returns to a degree. Similarly, Incitec Pivot's

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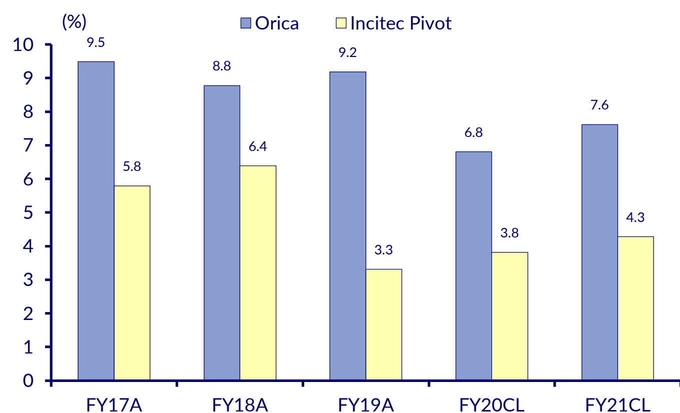
returns are significantly impacted by fertiliser losses. Debt to Ebitda is consistent for both Orica and Incitec Pivot since both companies have raised equity. Incitec Pivot recent raised A$660m while Orica did the same in February with A$150m used for balance sheet flexibility. We would also note ORI's recent A$725m USPP issuance.

Figure 63

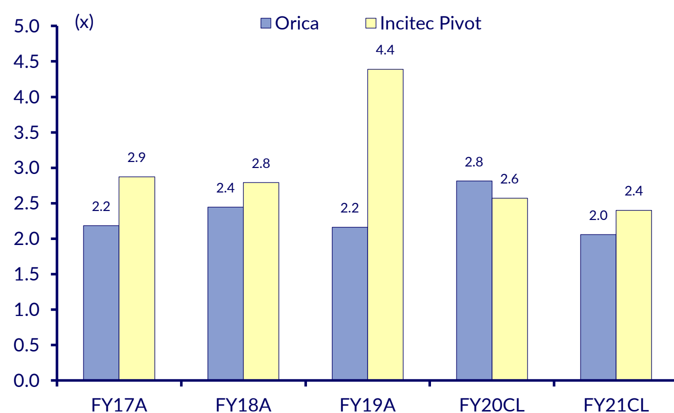
Return on average assets



Source: CLSA, Orica, Incitec Pivot

Figure 64

Debt / Ebitda



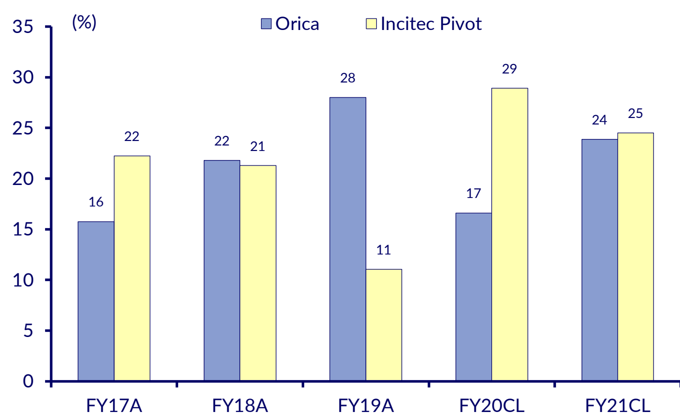
Source: CLSA, Orica, Incitec Pivot

Debt serviceability

It's a similar story for debt serviceability, with both companies consistent after Incitec Pivot's equity raise.

Figure 65

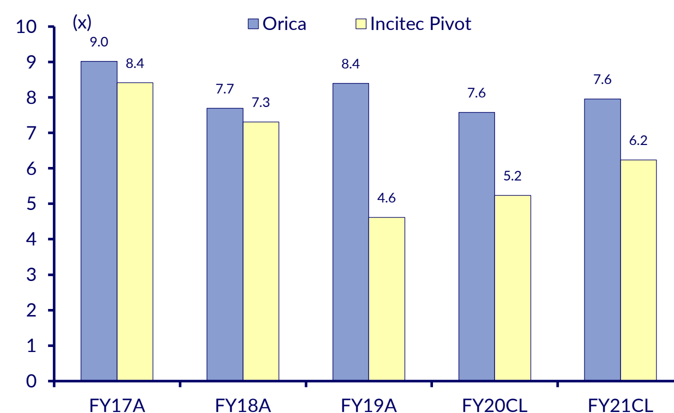
RCF / Debt



Source: CLSA, Orica, Incitec Pivot. RCF = Operating cashflow - dividends

Figure 66

Ebitda / interest expense



Source: CLSA, Orica, Incitec Pivot

Both Orica/Incitec Pivot will hold investment grade credit ratings, helped by recent equity raises

Credit rating analysis

Maintaining an investment grade credit rating is critical for Orica and Incitec Pivot, which is part of the reason Incitec Pivot raised equity in April. The output from the financial metrics is shown in the credit grids below. In summary, given recent equity raises, credit downgrades are unlikely. We expect Incitec Pivot to maintain a Baa2 rating. While Orica is rated by S&P, our grid result of Baa2 is comparable to the current BBB stable S&P rating.

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Figure 67

Incitec Pivot credit grid

	Weighting (%)	FY17	FY18	FY19	FY20CL	FY21CL
Factor 1: Scale (15%)						
Revenue (US$bn)	7.5	Ba	Ba	Ba	Ba	Ba
Net property, plant & equipment (US$bn)	7.5	Ba	Baa	Ba	Ba	Baa
Business profile (25% weight)						
(Rating)	25	A	A	A	A	A
Profitability (10% weight)						
Ebitda margin	5	Baa	Baa	Baa	Baa	Baa
Return on average assets	5	B	B	B	B	B
Leverage & coverage (30% weight)						
Debt / Ebitda	10	Baa	Baa	B	Baa	Baa
RCF / Debt	10	Baa	Baa	Ba	Baa	Baa
Ebitda / Interest expense	10	Baa	Ba	Ba	Ba	Ba
Financial policy (20% weight)						
(Rating)	20	A	A	A	A	A
Total score		**8.4**	**8.5**	**9.6**	**8.7**	**8.5**
Implied rating		**Baa1**	**Baa1**	**Baa3**	**Baa2**	**Baa1**
Grade		**IG**	**IG**	**IG**	**IG**	**IG**

Source: CLSA, Incitec Pivot, Moody's, IG = Investment Grade. RCF = Operating cashflow - dividends

Figure 68

Orica credit grid

	Weighting (%)	FY17	FY18	FY19	FY20CL	FY21CL
Factor 1: Scale (15%)						
Revenue (US$bn)	7.5	Ba	Ba	Ba	Ba	Ba
Net property, plant & equipment (US$bn)	7.5	Ba	Ba	Ba	Ba	Ba
Business profile (25% weight)						
(Rating)	25	A	A	A	A	A
Profitability (10% weight)						
Ebitda margin	5	Baa	Baa	Baa	Baa	Baa
Return on average assets	5	Ba	Ba	Ba	B	Ba
Leverage & coverage (30% weight)						
Debt / Ebitda	10	Baa	Baa	Baa	Baa	Baa
RCF / Debt	10	Ba	Baa	Baa	Ba	Baa
Ebitda / Interest expense	10	Baa	Ba	Baa	Ba	Ba
Financial policy (20% weight)						
(Rating)	20	A	A	A	A	A
Total score		8.6	8.9	8.3	9.0	8.6
Implied rating		**Baa2**	**Baa2**	**Baa1**	**Baa2**	**Baa2**
S&P implied rating		**BBB**	**BBB**	**BBB+**	**BBB**	**BBB**
Grade		**IG**	**IG**	**IG**	**IG**	**IG**

Source: CLSA, Orica, Moody's. IG = Investment Grade. RCF = Operating cashflow - dividends

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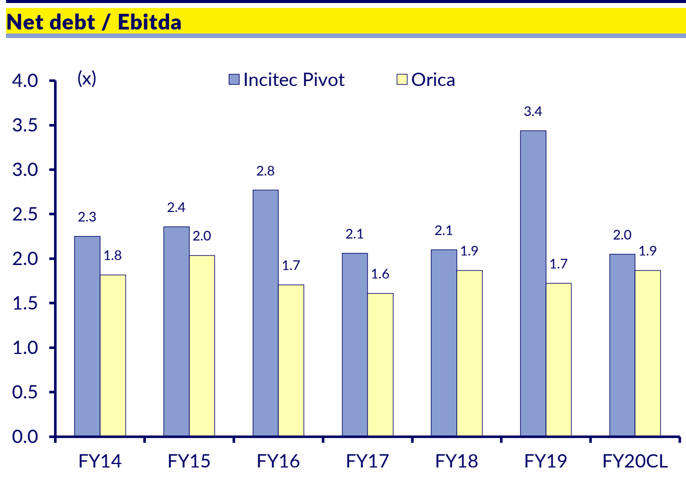
In summary, Orica's balance sheet remains in a stronger position than Incitec Pivot's from a leverage and liquidity perspective.

Figure 69

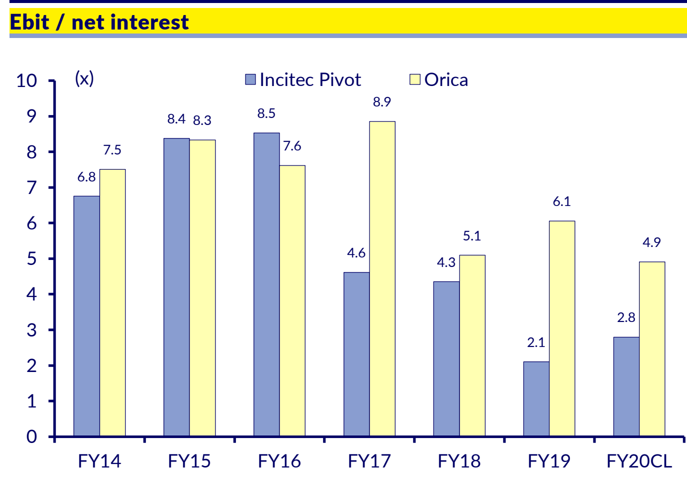
Net debt / Ebitda



Source: CLSA, Orica, Incitec Pivot

Figure 70

Ebit / net interest



Source: CLSA, Orica, Incitec Pivot

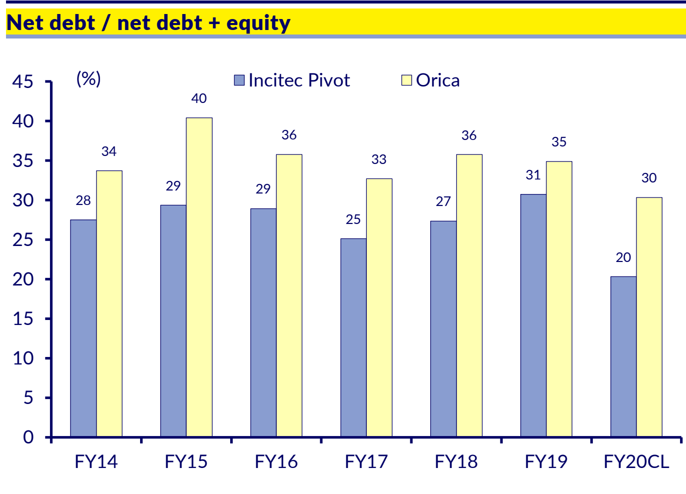
Covenants should not be an issue for both Orica and IPL given the recent raisings

Orica's covenants include interest cover of 2.0x and gearing below 57.5% (management target range of 30-40%). As per Figure 70 and 71, covenants are not an issue for Orica with headroom to manage potential weakness in explosives in FY21, pursue growth opportunities and manage upcoming debt maturities.

Incitec Pivot's leverage should reduce to below 2.0x in FY20 post the raise (and including derivatives), which is below the 2.5x target range (normal periods <2.0x). The reality is that this still doesn't provide a significant amount of headroom despite the raising, and requires a cyclical uptick in fertilisers. Incitec Pivot targets interest coverage (Ebitda/net interest) of 6.0x or greater; we expect FY20 to come in at 5.2x and improve thereafter.

Figure 71

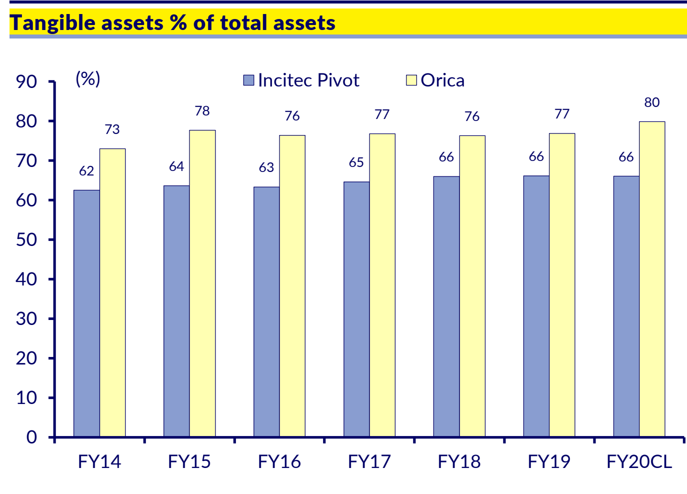
Net debt / net debt + equity



Source: CLSA, Orica, Incitec Pivot

Figure 72

Tangible assets % of total assets



Source: CLSA, Orica, Incitec Pivot

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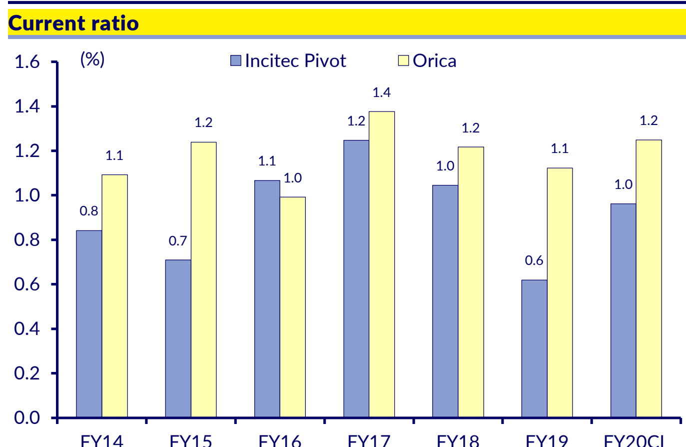
Figure 73

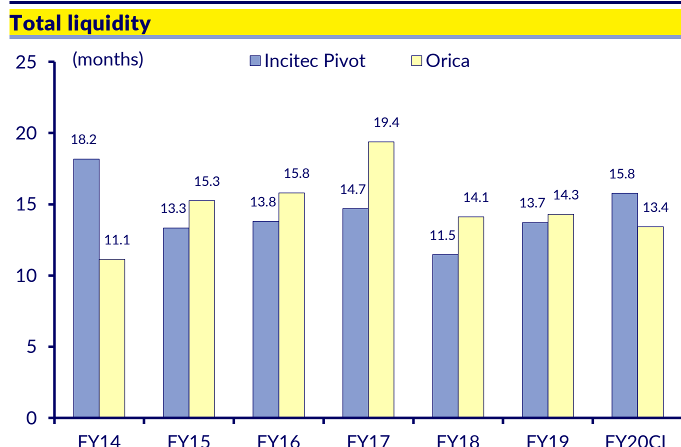
Current ratio



Source: CLSA, Orica, Incitec Pivot

Figure 74

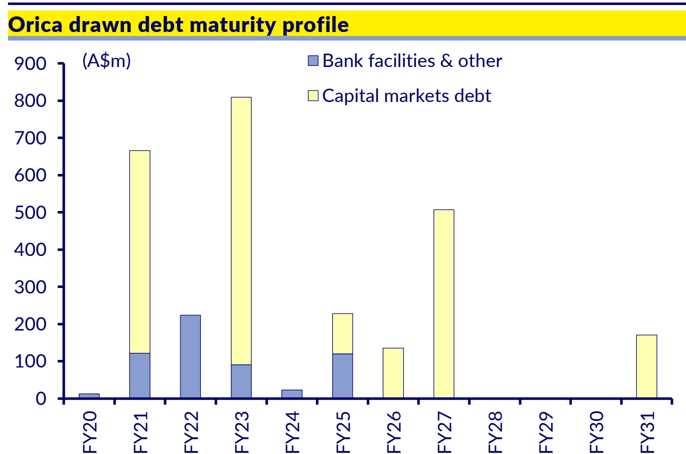
Total liquidity



Source: CLSA, Orica, Incitec Pivot. (Cash + Undrawn debt / current liabilities)*12

Figure 75

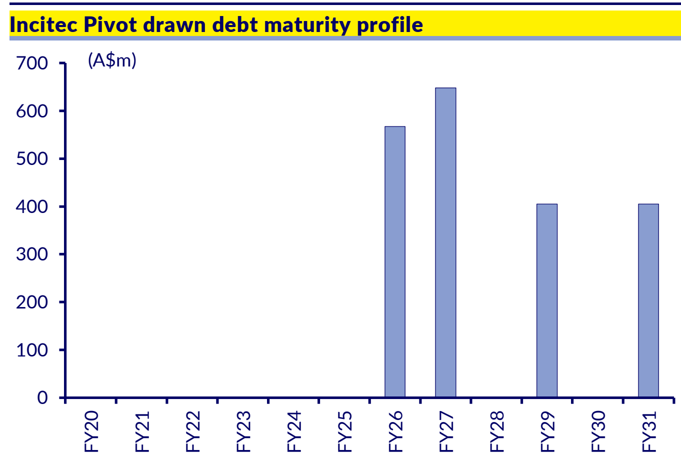
Orica drawn debt maturity profile



Source: CLSA, Orica

Figure 76

Incitec Pivot drawn debt maturity profile



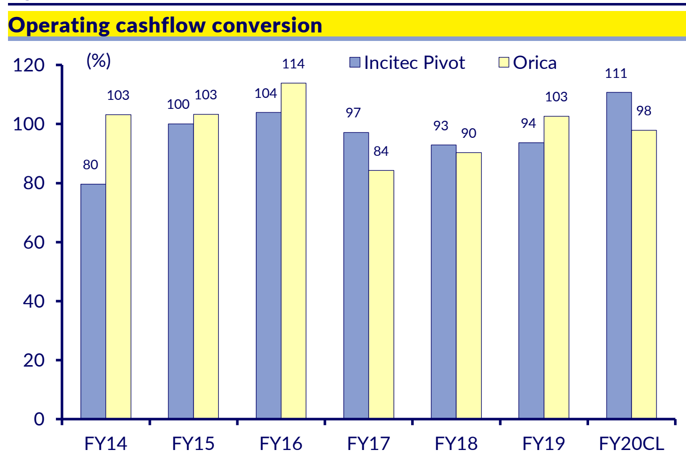
Source: CLSA, Incitec Pivot

Cashflow

Cashflow for both Orica and Incitec Pivot is relatively strong with operating cashflow conversion at 90-100% on average and free cash conversion slightly below (given capex > D&A). Overall, Orica appears to have a slight advantage on cashflow.

Figure 77

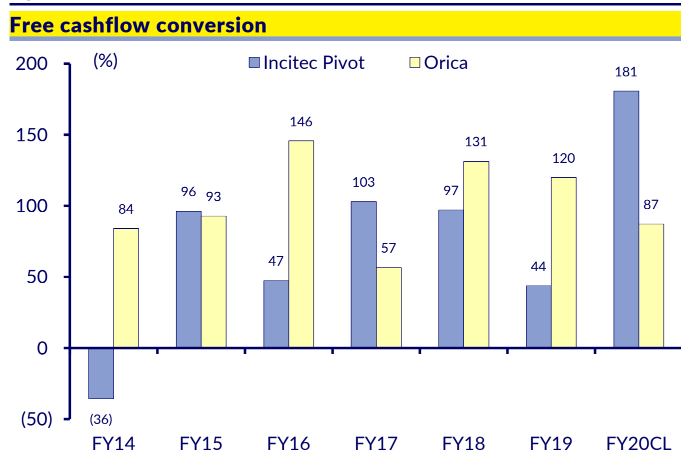
Operating cashflow conversion



Source: CLSA, Orica, Incitec Pivot

Figure 78

Free cashflow conversion



Source: CLSA, Orica, Incitec Pivot

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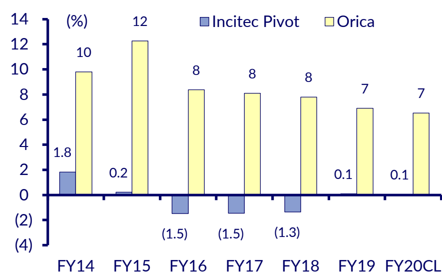
The composition is quite different, with Incitec Pivot's low working capital balance a function of negative fertiliser working capital offsetting positive explosives (explosives consistent with Orica). D&A is in line with maintenance capex for both businesses, and Incitec Pivot is slightly more capital intensive given its manufacturing operations.

Figure 79

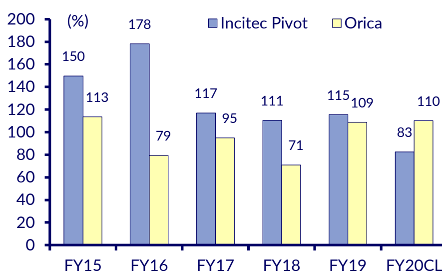
Working capital % of sales



Source: CLSA, Orica, Incitec Pivot

Figure 80

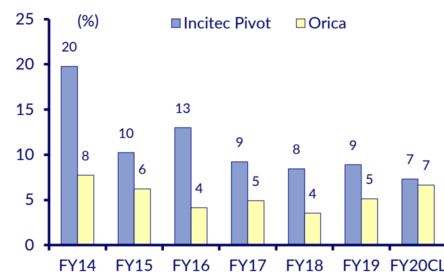
Capex to D&A



Source: CLSA, Orica, Incitec Pivot

Figure 81

Capex to sales



Source: CLSA, Orica, Incitec Pivot

Valuation analysis

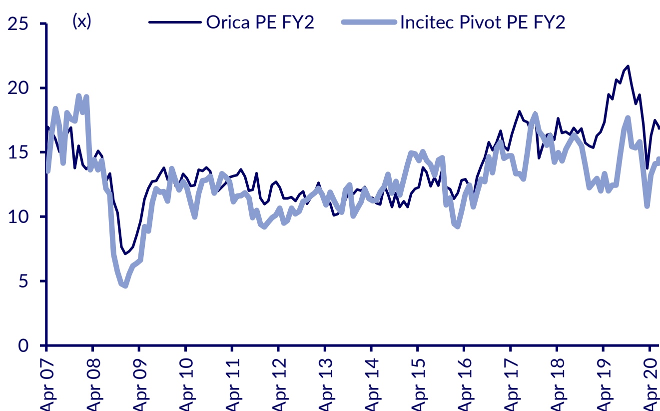
Orica is currently trading at 19x FY21CL PE vs Incitec Pivot at 15x FY21CL PE. We ultimately believe that Orica is a higher quality company but the key questions are whether these cyclical businesses should trade at market multiples and whether Orica should trade at a c.20% premium to Incitec Pivot.

Orica vs Incitec Pivot historical valuation ranges

Orica is trading at an about four PE point premium to Incitec Pivot on FY21 earnings, which is high compared to previous levels. That said, on an EV/Ebit basis, relative valuations appear more normal.

Figure 82

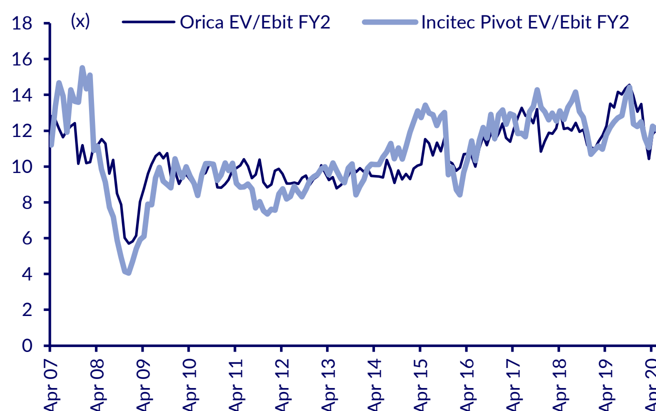
PE



Source: CLSA, FactSet

Figure 83

EV/Ebit



Source: CLSA, FactSet

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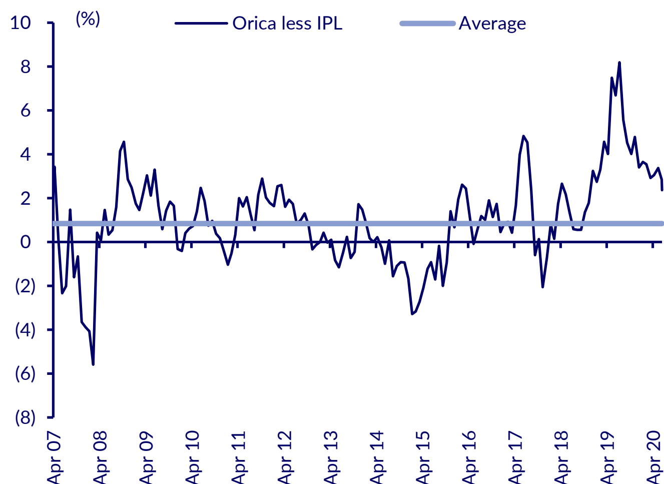
Figure 84

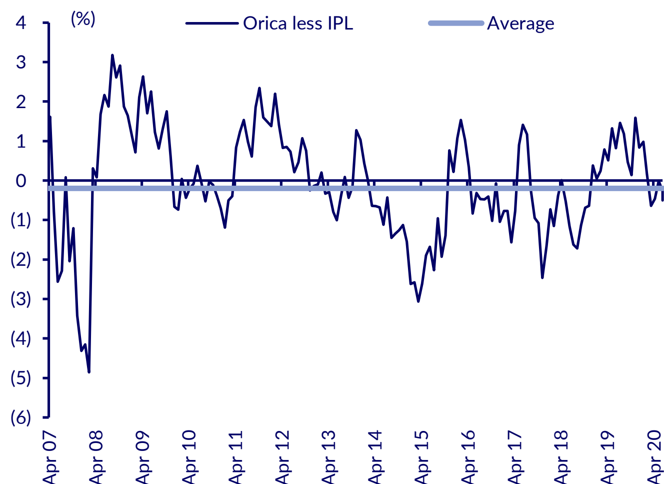
Orica vs Incitec Pivot PE gap



Source: CLSA, FactSet

Figure 85

Orica vs Incitec Pivot EV/Ebit gap



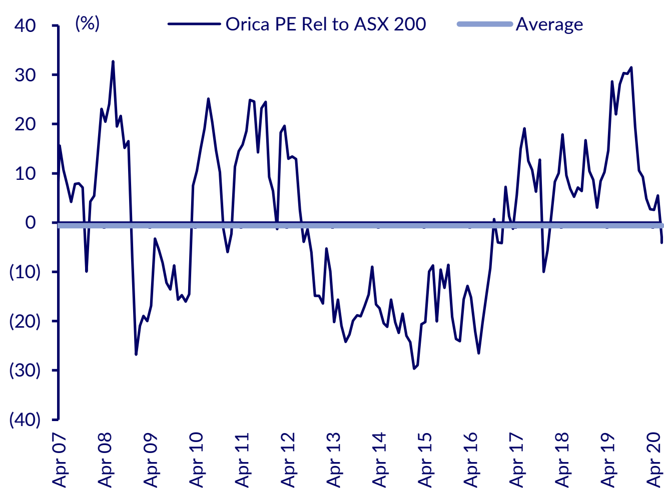
Source: CLSA, FactSet

Orica and Incitec Pivot versus industrial peers

While Orica's premium to Incitec Pivot looks high, it is relatively normal and likely justified. The bigger question is whether they should be trading at 15-19x.

Figure 86

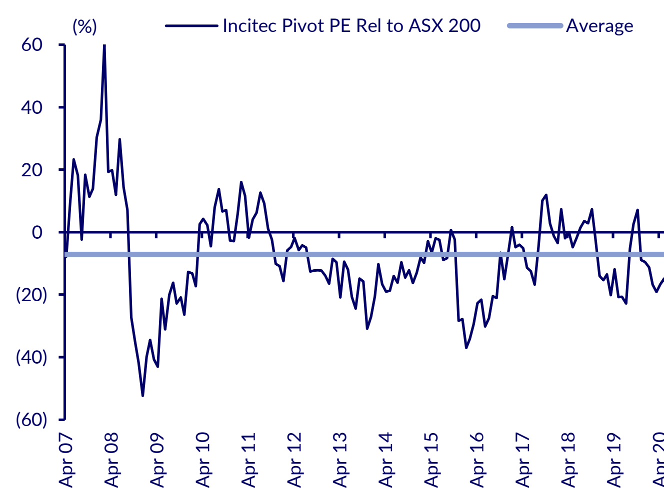
Orica PE Rel to the ASX 200



Source: CLSA, FactSet

Figure 87

Incitec Pivot PE Rel to the ASX 200



Source: CLSA, FactSet

Screening against a mix of industrial and material peers shows that valuations for Orica and Incitec Pivot do not stand out with respect to multiples vs returns. IPL's returns are being dragged by loss-making fertilisers but this does not change our view that the valuation is unattractive relative to industrials.

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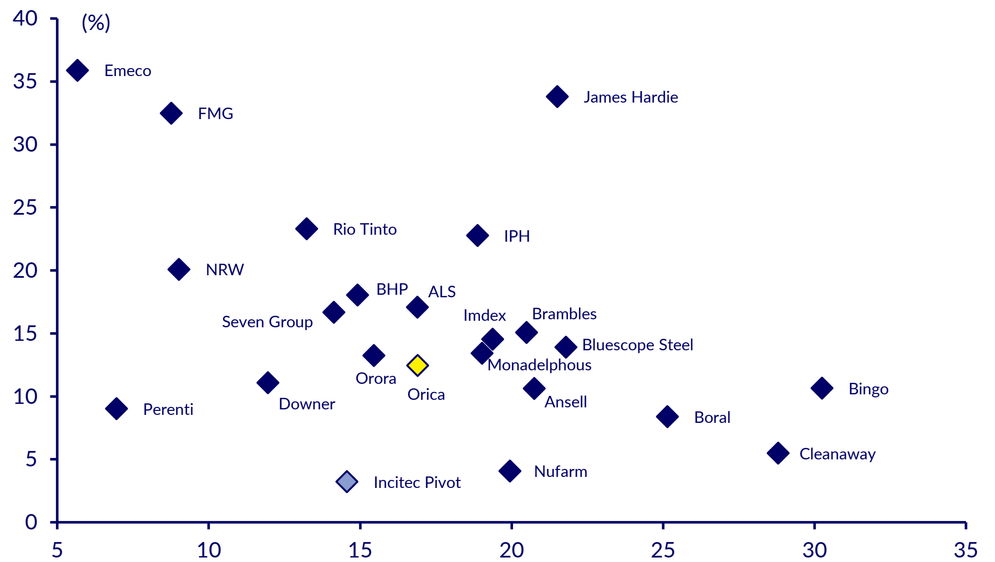
PE vs returns relatively unattractive

Figure 88

FY2 PE vs current ROE

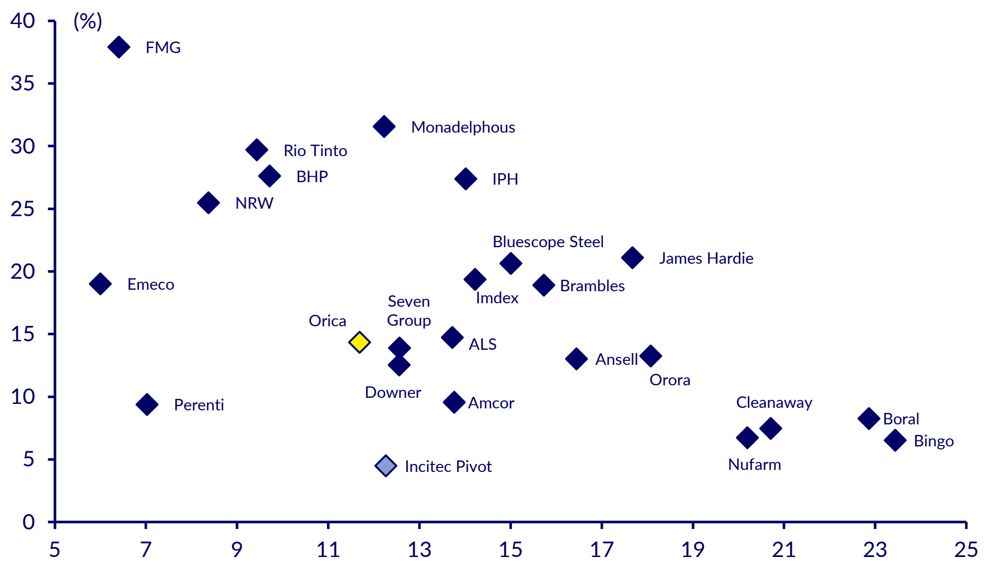


Source: CLSA, FactSet

EV/Ebit vs ROIC relatively unattractive

Figure 89

FY2 EV/Ebit vs current ROIC



Source: CLSA, FactSet

Comparing to offshore chemicals peers provides some valuation support but changing industry economics limits the value in a long-run “normalised” average. 2016 onwards is likely a better comparison.

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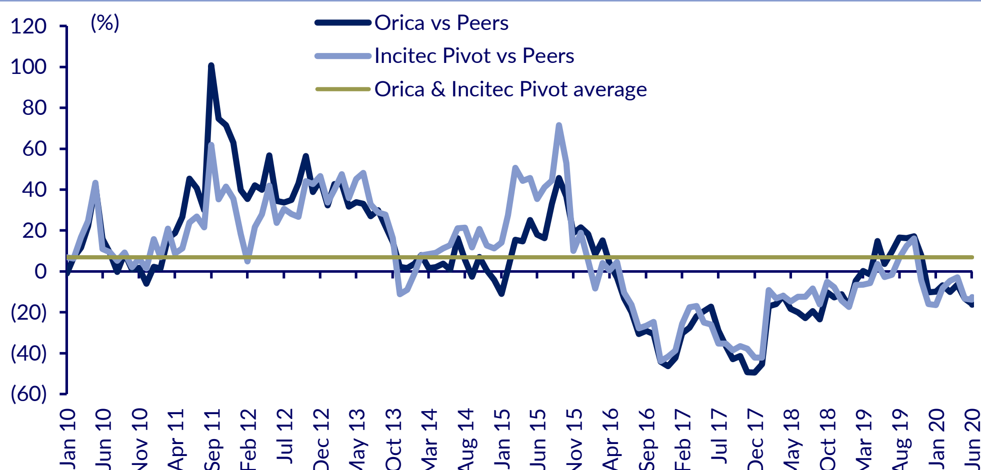
Comparing valuations to offshore chemical companies

Figure 90

Orica and Incitec Pivot EV/Ebit FY2 vs CF, Mosaic, Yara



Source: CLSA, FactSet

Figure 91

Peer comparisons

Name	YTD perf. (%)	Mkt cap (US$m)	PE (x)		EV/Ebit (x)		Div yield (%)		P/BV (x)		ND/Ebitda (x)	
			FY1	FY2	FY1	FY2	FY1	FY2	FY1	FY2	FY1	FY2
Chemicals												
Orica	(25)	4,738	19.8	16.9	13.6	11.8	2.4	3.2	1.8	1.7	1.9	1.6
Incitec Pivot	(39)	2,605	16.8	14.6	14.0	12.3	1.6	3.4	0.6	0.7	1.9	1.5
CF Industries	(41)	6,446	19.8	17.6	18.7	17.5	4.3	4.3	2.3	2.4	2.5	2.3
Mosaic	(42)	4,946	82.3	15.4	27.0	15.2	1.7	1.8	0.5	0.5	3.8	2.9
Yara International	(9)	10,174	11.0	9.2	10.6	9.3	4.9	5.8	1.1	1.0	1.4	1.2
K+S	(49)	1,306	(26.0)	17.2	53.1	18.4	0.8	1.8	0.3	0.2	6.9	5.5
Israel Chemicals	(37)	4,140	14.1	9.8	13.4	10.3	3.0	4.9	0.9	0.9	2.5	2.2
PhosAgro PJSC	10	4,962	12.8	7.9	10.2	9.3	5.2	5.8	2.4	2.0	1.9	1.6
PPG Industries	(21)	24,458	23.9	17.7	20.2	15.5	2.0	2.1	4.5	4.2	1.6	1.3
DowDuPont Inc	(17)	38,877	18.5	16.0	16.2	15.9	2.3	2.4	1.0	0.9	3.2	2.5
BASF	(26)	52,660	21.3	14.2	20.2	14.4	6.1	6.3	1.1	1.1	2.2	1.9
Sumitomo Chemical Co	(36)	5,234	19.0	8.8	29.0	18.2	3.2	4.0	0.7	0.6	5.8	4.7
Chemicals median	**(31)**		**18.8**	**15.0**	**17.4**	**14.8**	**2.7**	**3.7**	**1.0**	**1.0**	**2.3**	**2.1**
Agriculture												
Incitec Pivot	(39)	2,605	16.8	14.6	14.0	12.3	1.6	3.4	0.6	0.7	1.9	1.5
Nufarm	(29)	1,186	(173.4)	19.9	31.7	20.2	0.4	1.4	0.7	0.6	1.5	0.9
Costa Group	18	807	22.7	16.5	n.m.	12.5	2.7	3.9	2.0	1.9	2.2	1.8
Elders	48	1,038	14.9	13.2	11.6	10.0	2.2	2.6	2.4	2.1	1.3	0.8
Agriculture median	**(6)**		**15.8**	**15.5**	**14.0**	**12.4**	**1.9**	**3.0**	**1.3**	**1.3**	**1.7**	**1.2**
Mining services												
Orica	(25)	4,738	19.8	16.9	13.6	11.8	2.4	3.2	1.8	1.7	1.9	1.6
Incitec Pivot	(39)	2,605	16.8	14.6	14.0	12.3	1.6	3.4	0.6	0.7	1.9	1.5
Monadelphous	(35)	732	26.3	19.4	15.4	12.2	2.8	3.6	2.6	2.5	(1.4)	(1.4)
Worley	(42)	3,291	11.6	13.5	10.4	12.7	4.2	2.8	0.8	0.8	1.8	1.7
Downer EDI	(45)	1,833	15.8	11.9	15.4	12.4	3.4	3.8	0.9	0.9	2.1	1.7
NRW	(42)	549	9.2	9.0	8.2	7.9	2.6	3.3	1.7	1.5	0.4	0.0
Mining services median	**(41)**		**16.3**	**14.0**	**13.8**	**12.3**	**2.7**	**3.3**	**1.3**	**1.2**	**1.8**	**1.5**

Source: CLSA, FactSet consensus

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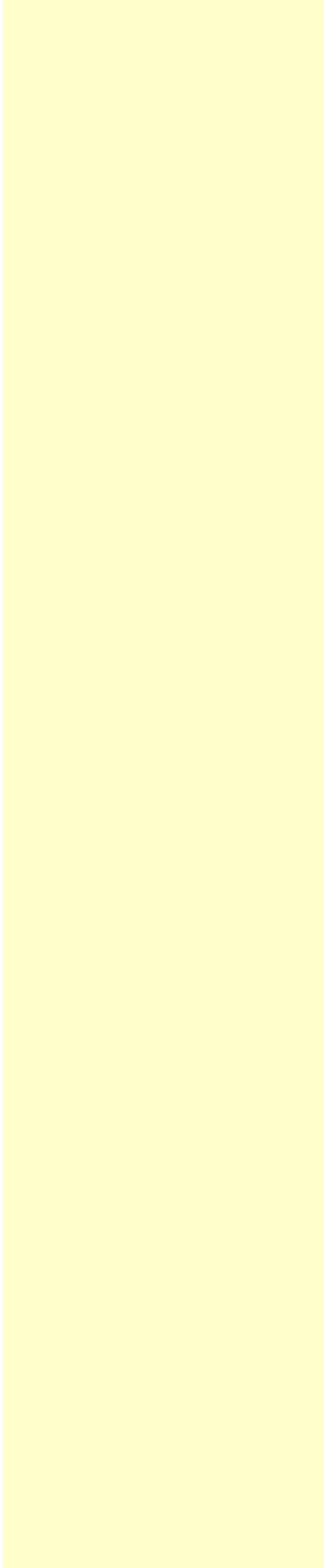

Notes

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Company profiles

Incitec Pivot 43

Orica 65

All prices quoted herein are as at close of business 1 July 2020, unless otherwise stated

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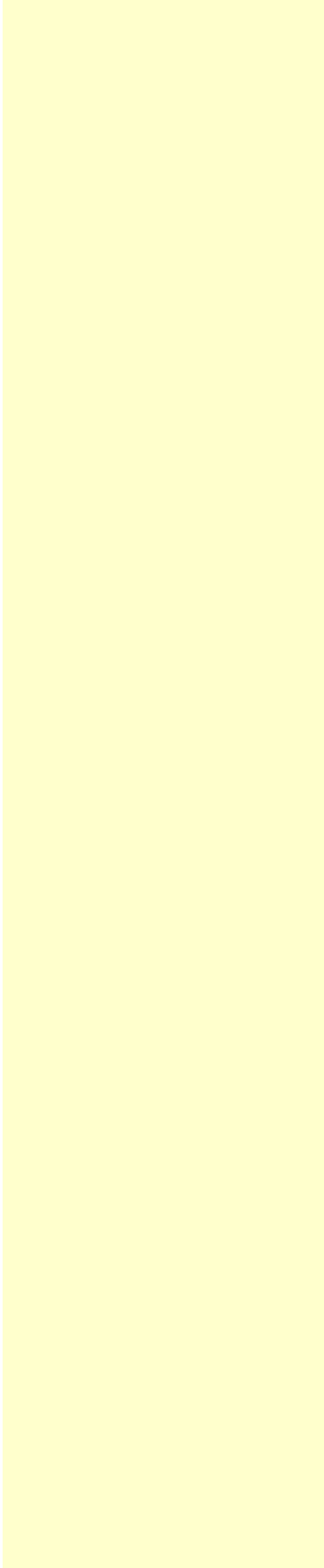

Notes

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Incitec Pivot

A$1.93 - UNDERPERFORM

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2 July 2020

Australia

Materials

Reuters	IPL.AX
Bloomberg	IPL AU

Priced on 1 July 2020
ASX200 @ 5,934.4

12M hi/lo	A$3.63/1.67
12M price target	A$1.96
±% potential	+2%
Shares in issue	1,942.2m
Free float (est.)	100.0%
Market cap	US$2.6bn
3M ADV	US$21.7m
Foreign s'holding	30.0%

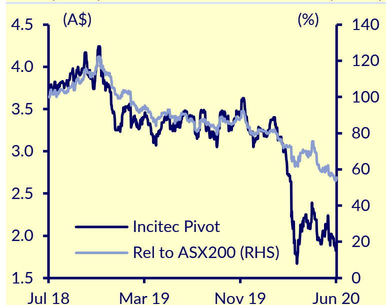
Major shareholders
Perpetual 9.6%
Harris Associates 9.5%

Blended ESG Score (%)*	
Overall	76.9
Country average	83.6
GEM sector average	66.8

*Click to visit company page on clsa.com for details

Stock performance (%)

	1M	3M	12M
Absolute	(3.0)	(9.4)	(43.4)
Relative	(4.9)	(19.7)	(36.6)
Abs (US$)	0.4	1.3	(44.3)



Source: Bloomberg

Changing directions

Turnaround story or value trap?

On the surface, Incitec Pivot looks like a solid turnaround story for patient investors, should cycles turn. But there is no certainty that the company will capitalise on this. While there is opportunity in the fertilisers business, this is well-known and captured in earnings forecasts. Its mining operating leverage provides a base to capitalise on pricing benefits but we see volume risk from weak commodity prices. We believe Incitec Pivot could be a value trap; we initiate coverage at Underperform with an A$1.96 target price.

Explosives outlook looks muted

In Australia, the key mining risk is FY21 coal production, given soft metallurgical coal prices. Australia's cost curve should limit downside but we expect a similar scenario to 2015-16 with declining strip ratios and a supply-chain squeeze. This comes at a time where the ammonium nitrate (AN) market moves into oversupply. In the Americas, Covid-19 has hindered thermal coal production due to coal-to-gas power-station switching. This is a long-term trend that may be accelerating. A softer US construction outlook could be supported by infrastructure stimulus but we expect earnings for the Dyno US division to decline in the next 18 months.

Fertilisers held back by price

We believe volume growth will be supported. However, weak urea and diammonium phosphate (DAP) prices may limit earnings and we expect 2H20 Ebit of A$15m. Our forecasts assume A$97m Ebit by FY23, driven by the company's Phosphate Hill manufacturing plant. However, high gas prices at the company's Gibson Island chemical plant limit further upside. Improving earnings is vital for Incitec Pivot to revisit a sale of the division; this should be taken positively, but it is not a likely near-term opportunity.

Competitive and cyclical industries with limited market power

The Incitec Pivot bull case is a strong cyclical recovery in fertiliser earnings, particularly as the outlook for the east coast winter crop is at its highest levels since 2011-12. That said, history tells us these peaks and troughs are unpredictable. In mining, we do not believe positive repricing will lead to full flow-through, given limited market power and competition. This is likely to continue as miners target supply chain savings when their own pricing/revenue is challenged.

Initiate at Underperform and A$1.96 target price

We initiate Incitec Pivot with an Underperform rating and an SOTP-based A$1.96 target price. We see a solid play on a longer-term investment horizon but view it as having significant risk in a highly cyclical and capital-intensive industry.

Financials

Year to 30 September	18A	19A	20CL	21CL	22CL
Revenue (A$m)	3,856	3,918	4,044	4,029	4,144
Net profit (A$m)	347	152	183	232	292
EPS (A¢)	20.9	9.5	9.8	12.5	15.7
CL/consensus (11) (EPS%)	-	-	86	90	91
EPS growth (% YoY)	10.5	(54.6)	4.0	26.6	26.1
PE (x)	9.2	20.4	19.6	15.5	12.3
Dividend yield (%)	5.5	2.4	1.3	3.0	4.1
FCF yield (%)	10.5	2.1	9.2	6.1	8.3
ROE (%)	7.3	3.2	3.6	4.1	5.1
Net debt/equity (%)	37.7	44.4	25.5	22.9	19.8

Source: www.clsa.com

Prepared for - W: andrew.donlan@baep.com.au

evalu@tor The Global Equities Database

Financials at a glance

Year to 30 September	2018A	2019A	2020CL	(% YoY)	2021CL	2022CL
Profit & Loss (A$m)						
Revenue	**3,856**	**3,918**	**4,044**	*3.2*	**4,029**	**4,144**
Cogs (ex-D&A)	(3,005)	(3,313)	(3,306)		(3,256)	(3,288)
Gross Profit (ex-D&A)	**851**	**605**	**738**	*21.8*	**774**	**856**
SG&A and other expenses	0	-	-		-	-
Op Ebitda	**851**	**605**	**738**	*21.8*	**774**	**856**
Depreciation/amortisation	(294)	(302)	(358)		(345)	(355)
Op Ebit	**557**	**304**	**379**	*24.8*	**429**	**501**
Net interest inc/(exp)	(128)	(144)	(139)		(124)	(111)
Other non-Op items	0	0	-		-	0
Profit before tax	**429**	**160**	**240**	*50.2*	**305**	**389**
Taxation	(78)	(8)	(57)		(73)	(97)
Profit after tax	**350**	**152**	**183**	*20.3*	**232**	**292**
Minority interest	(3)	0	0		0	0
Net profit	**347**	**152**	**183**	*20.1*	**232**	**292**
Adjusted profit	**347**	**152**	**183**	*20.1*	**232**	**292**
Cashflow (A$m)	**2018A**	**2019A**	**2020CL**	**(% YoY)**	**2021CL**	**2022CL**
Operating profit	**557**	**304**	**379**	*24.8*	**429**	**501**
Depreciation/amortisation	294	302	358	*18.9*	345	355
Working capital changes	7	(12)	(2)		(15)	(6)
Other items	(195)	(178)	(109)		(197)	(209)
Net operating cashflow	**663**	**415**	**626**	*51*	**561**	**641**
Capital expenditure	(325)	(348)	(296)		(342)	(344)
Free cashflow	**337**	**67**	**331**	*395.6*	**219**	**297**
M&A/Others	(5)	1	(57)		0	0
Net investing cashflow	**(331)**	**(348)**	**(353)**		**(342)**	**(344)**
Increase in loans	(3)	124	(932)		0	0
Dividends	(157)	(122)	(78)		(106)	(146)
Net equity raised/other	(215)	(90)	633		(40)	(40)
Net financing cashflow	**(376)**	**(88)**	**(377)**		**(147)**	**(186)**
Incr/(decr) in net cash	(44)	(21)	(103)		73	110
Exch rate movements	4	9	3	*(66.3)*	0	0
Balance sheet (A$m)	**2018A**	**2019A**	**2020CL**	**(% YoY)**	**2021CL**	**2022CL**
Cash & equivalents	589	576	476	*(17.4)*	549	659
Accounts receivable	312	317	364	*14.8*	358	365
Other current assets	572	658	647	*(1.6)*	639	649
Fixed assets	4,004	4,190	4,341	*3.6*	4,338	4,327
Investments	336	358	369	*3.1*	369	369
Intangible assets	3,047	3,180	3,371	*6*	3,371	3,371
Other non-current assets	95	102	363	*257.7*	363	363
Total assets	**8,954**	**9,380**	**9,929**	**5.9**	**9,986**	**10,102**
Short-term debt	213	1,213	25	*(98)*	25	25
Accounts payable	1,045	1,152	1,206	*4.7*	1,178	1,188
Other current liabs	150	139	314	*126.2*	314	314
Long-term debt/CBs	2,162	1,443	1,873	*29.8*	1,832	1,792
Provisions/other LT liabs	641	745	934	*25.4*	934	933
Shareholder funds	4,738	4,688	5,578	*19*	5,704	5,850
Minorities/other equity	7	0	0		0	0
Total liabs & equity	**8,954**	**9,380**	**9,929**	**5.9**	**9,986**	**10,102**
Ratio analysis	**2018A**	**2019A**	**2020CL**	**(% YoY)**	**2021CL**	**2022CL**
Revenue growth (% YoY)	11.0	1.6	3.2		(0.4)	2.8
Ebitda margin (%)	22.1	15.4	18.2		19.2	20.6
Ebit margin (%)	14.4	7.8	9.4		10.6	12.1
Net profit growth (%)	9.0	(56.1)	20.1		26.6	26.1
Op cashflow growth (% YoY)	2.3	(37.4)	51.0		(10.4)	14.1
Capex/sales (%)	8.4	8.9	7.3		8.5	8.3
Net debt/equity (%)	37.7	44.4	25.5		22.9	19.8
Net debt/Ebitda (x)	2.1	3.4	1.9		1.7	1.4
ROE (%)	7.3	3.2	3.6		4.1	5.1
ROIC (%)	6.7	4.1	3.9		4.3	5.0

Source: www.clsa.com

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A more sustained recovery is needed to ignite buyer interest in the division

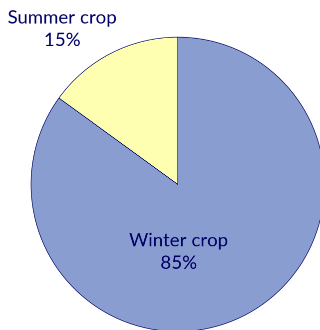
Cycle starting to turn for fertilisers

Incitec Pivot's fertiliser business has been a drag on earnings for the past 18 months; a steep fall from the A$200m Ebit delivered in FY14/15. Recent rainfall conditions point to rapidly improving conditions which should show Incitec Pivot delivering positive earnings despite some weakness in commodity pricing. However, this is well-known and captured in earnings forecasts. The cycle turning is thus vital for earnings growth and could be a catalyst to reignite buyer interest in the division. However, we believe any potential share price catalyst is some way off.

East coast fertiliser conditions improving

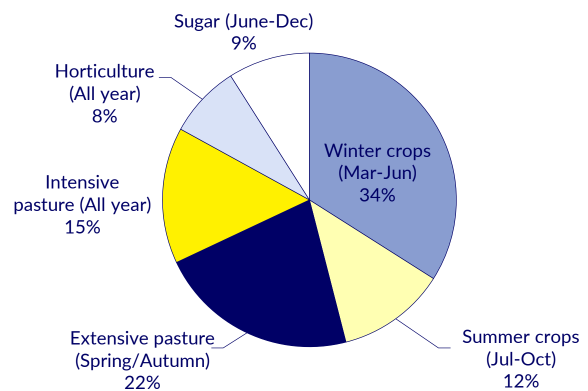
East coast fertiliser conditions are improving dramatically, setting up a strong winter crop. The winter crop represents the majority by area, but for Incitec Pivot, volumes are more diversified, particularly with high-margin crops such as cotton in the summer.

East coast crop size by winter/summer – long-term average



Source: Australian Bureau of Agricultural and Resource Economics

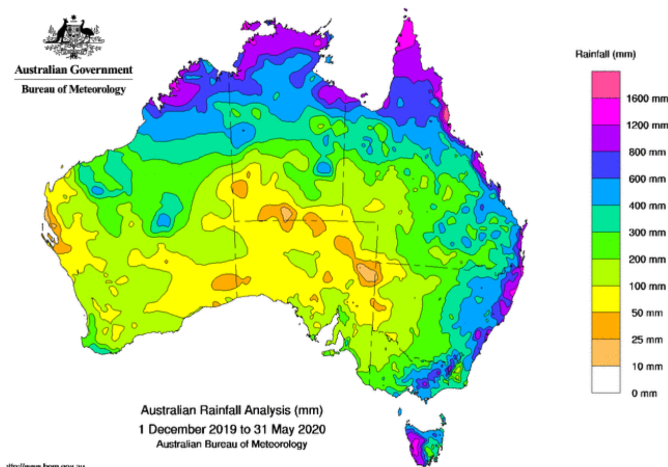
Incitec Pivot fertiliser volumes



Source: Incitec Pivot. Note: From Incitec Pivot prospectus in 2008/9 so splits may have changed. We use an indicative mix.

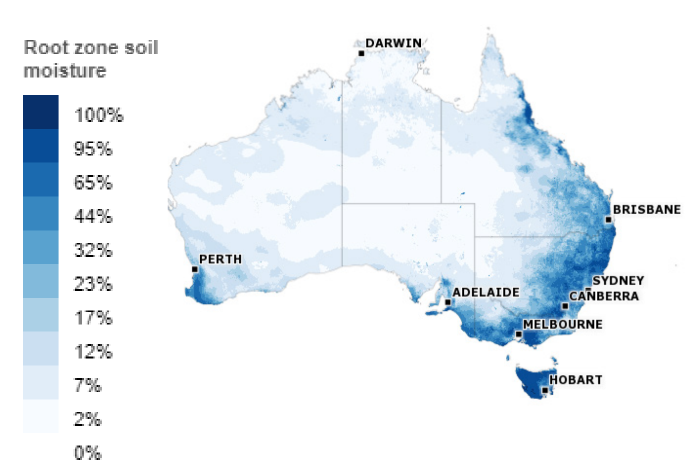
Recent rainfall has improved soil moisture to the highest levels since 2017.

Australia rainfall (January-May)



Source: Australia Bureau of Meteorology

Root zone soil moisture (June)



Source: Australia Bureau of Meteorology

Average rainfall for the January-May period has been very strong in New South Wales and Victoria; this sets up 2020 for a much-improved crop season.

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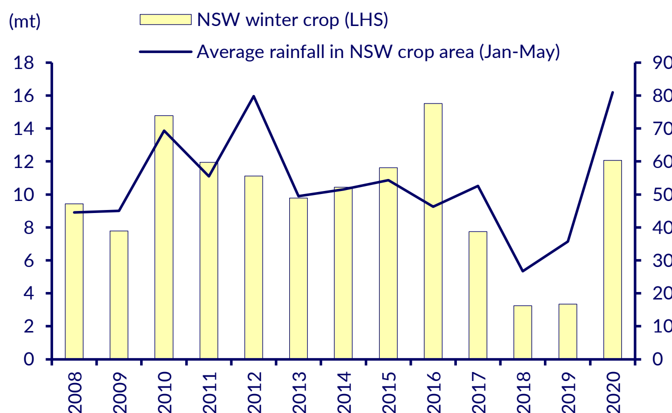
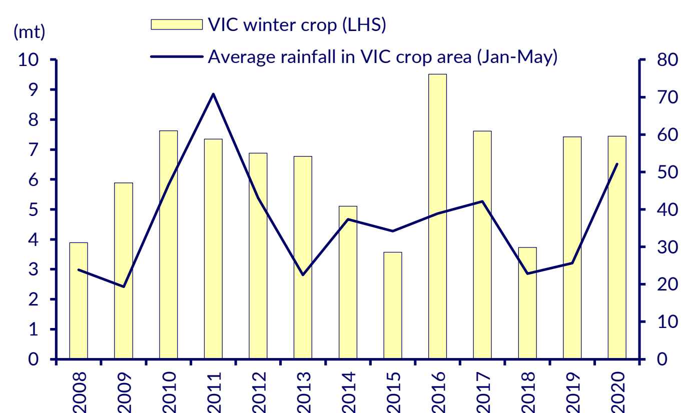
New South Wales crop area rainfall – January-May average



Source: Australia Bureau of Meteorology, Australian Bureau of Agricultural and Resource Economics

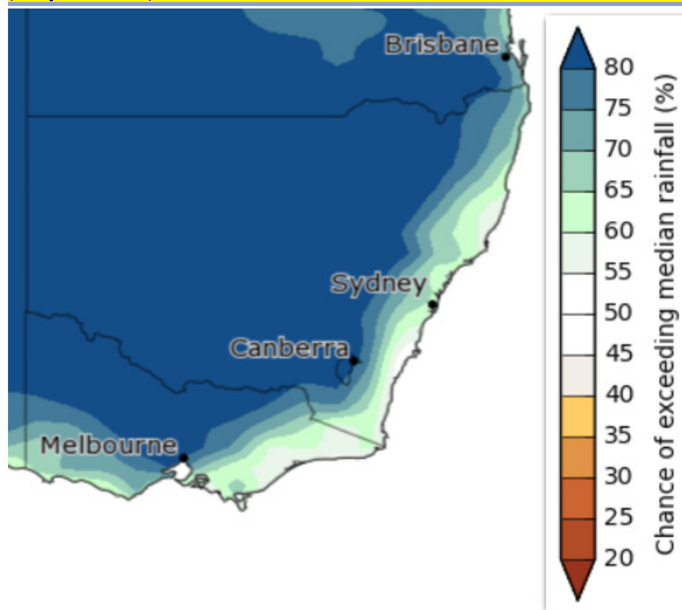
Victoria crop area rainfall – January-May average



Source: Australia Bureau of Meteorology, Australian Bureau of Agricultural and Resource Economics

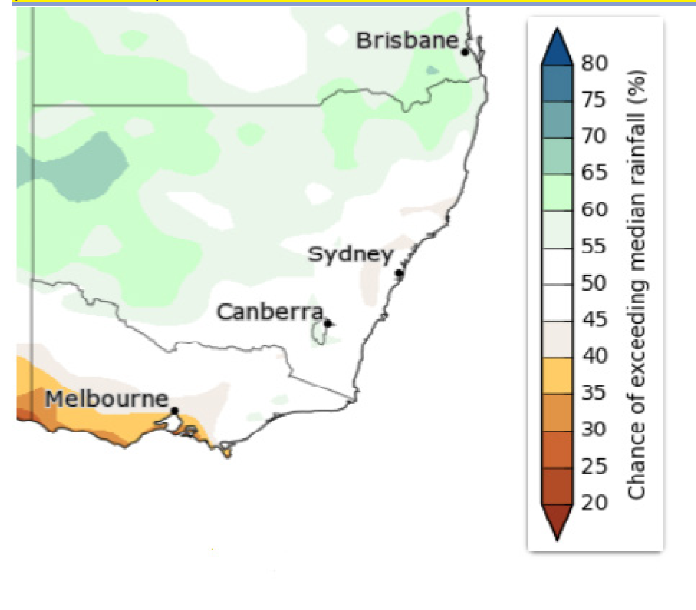
Rainfall in these key crop areas during the coming months is key and we note that the current rainfall outlook for June-August is less positive than in May, with a more than 50-75% chance of exceeding.

Chance of exceeding median rainfall: June to August (May forecast)



Source: Australia Bureau of Meteorology

Chance of exceeding median rainfall: June to August (June forecast)



Source: Australia Bureau of Meteorology

Australian Bureau of Agricultural and Resource Economics forecasts 21.5m crop

The Australian Bureau of Agricultural and Resource Economics forecasts an east coast winter crop of 21.5mt. This would be in line with the 2011-12 crop and be about the third largest of the past 20 years. However, our assessment of Australian Bureau of Agricultural and Resource Economics' previous forecasts suggests its June forecast tends to understate big crop years but overstate poor crop years.

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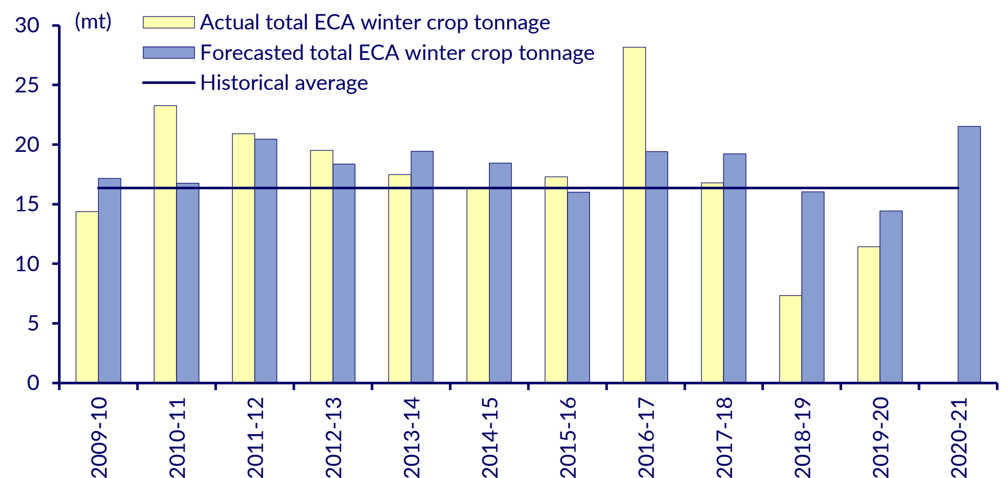
The Australian Bureau of Agricultural and Resource Economics' June forecasts tend to understate good years and overstate poor years

ABARES ECA winter crop: June forecast versus actual

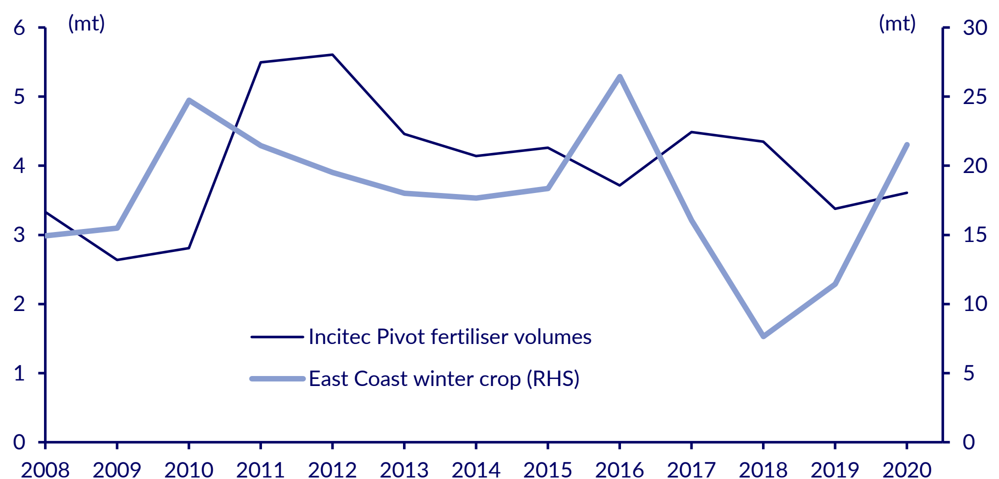


Source: Australian Bureau of Agricultural and Resource Economics (ABARES)

This sets Incitec Pivot up for an improved 2H20 result and into FY21 with crop sizes returning closer to normalised levels. Continued rainfall will be important to deliver a solid summer crop, particularly for high-margin cotton fertiliser.

We expect good result for Incitec Pivot volumes

Incitec Pivot fertiliser volumes versus crop size



Source: Incitec Pivot, Australian Bureau of Agricultural and Resource Economics. Crop = calendar year; Incitec Pivot = September year-end.

Weak commodity prices but near the bottom

Incitec Pivot's fertiliser business was expected to turn Ebit-positive in 2H20, dependent on commodity prices. Urea and DAP prices have continued to weaken during the past month, which should challenge the extent of the recovery in 2H.

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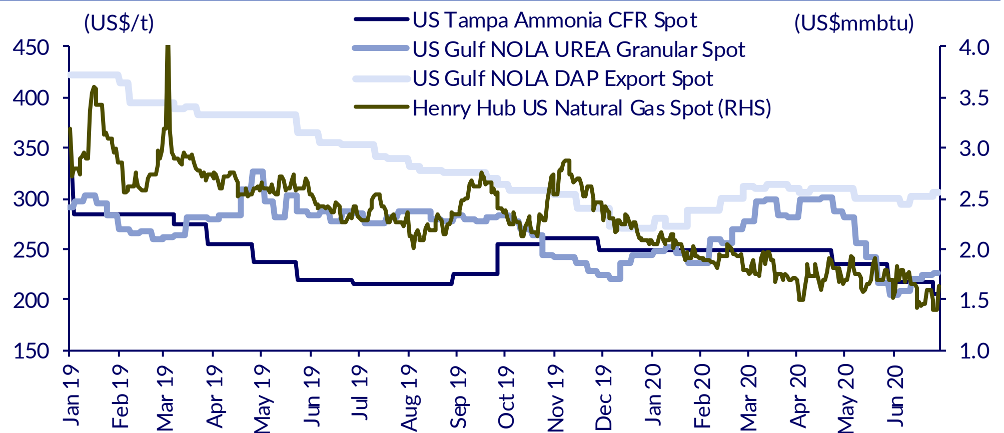
Prices will be a headwind in 2H20

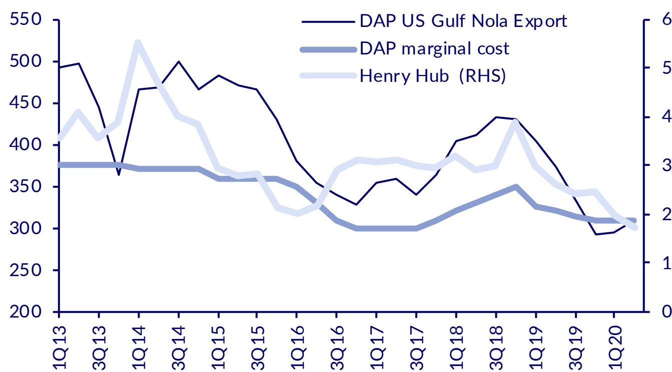
Fertiliser prices



Source: Bloomberg

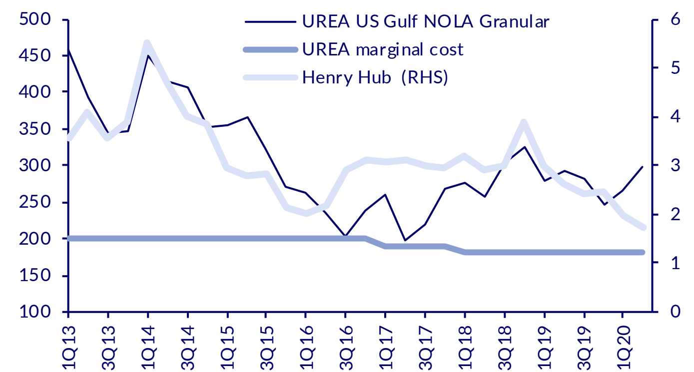
DAP prices are at 13-year lows while Urea has fared a little better. Soft global demand and low natural gas prices in the US are likely to challenge the commodity price outlook. However, with DAP prices below marginal cost, there may be some downside support at current levels.

DAP prices



Source: Bloomberg, Incitec Pivot

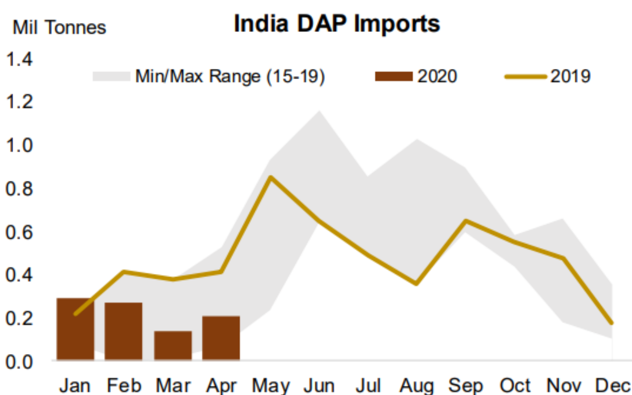
Urea prices

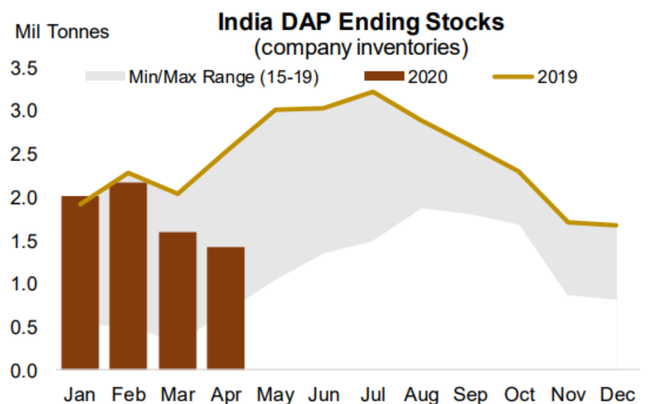


Source: Bloomberg, Incitec Pivot

Mosaic's recent fertiliser update shows that weak Indian DAP imports (Jan-Apr down 36% YoY from the world's largest importer) have been a headwind but low inventories could support prices as demand recovers.

Indian DAP imports and stocks





Source: Mosaic

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We forecast fertiliser prices based on historical linkage to US natural gas prices and ammonia.

Fertiliser price forecasts

	FY19	FY20CL	FY21CL	FY22CL
Ammonia (US$/t)	271	246	268	285
Urea (US$/t)	294	260	261	268
DAP (US$/t)	385	297	320	343
Henry Hub (US$MMBtu)	3.0	2.0	2.4	2.5

Source: CLSA

Manufacturing will be key

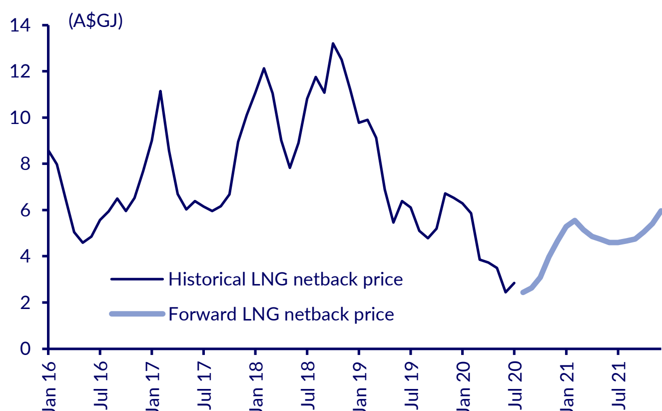
Commodity prices are out of Incitec Pivot's control. However, it is crucial that strong plant performance occurs as the cycle turns to capture upside benefits.

Phosphate Hill has been operating reliably recently and should reach a 975kt run-rate in 2H20. Operating at capacity, combined with lower gas prices (contract until 2028) and improving DAP prices in FY21 and beyond should show earnings lift materially, which is the driver of our fertiliser forecasts. That said, there is risk around costs: Two-thirds of sulphuric acid supply comes from Glencore's Mount Isa copper smelter, which only has environmental authority to produce until 2022. Given that sulphuric acid is a by-product, the cost to Incitec Pivot is low (transport costs for the 2/3 from Mt Isa and spot sulphuric acid for the 1/3 purchased), so this could require more externally sourced product post 2022 lifting costs.

Gibson Island continues to be a drag on the division, given elevated gas prices. The new gas contract is secured until December 2022 but at current levels we believe the future for the plant is highly uncertain. Guidance was for a A$5m Ebit improvement in FY20, which in our view will be difficult to achieve given urea and FX price movements. We forecast a c.A$1m improvement but remaining loss making of c.A$37m Ebit.

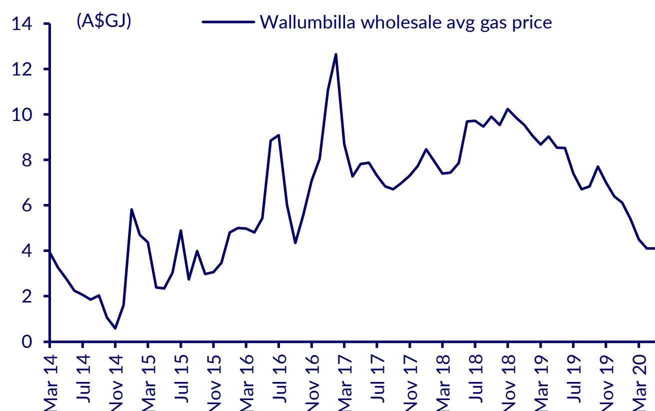
Gas prices have fallen significantly in the past 18 months. The gas price disparity between Australia and key regions such as North America is a key issue for Incitec Pivot because it is reducing commodity benchmark prices while increasing production costs, squeezing margins. While short-term prices have fallen, as shown on page 13, east coast gas prices are likely to remain high, given the supply shortfall, so we see limited relief (outside of Phosphate Hill contracted savings).

Australian LNG netback prices



Source: Australian Competition and Consumer Commission

Australian short-term gas prices



Source: Australian Energy Market Operator

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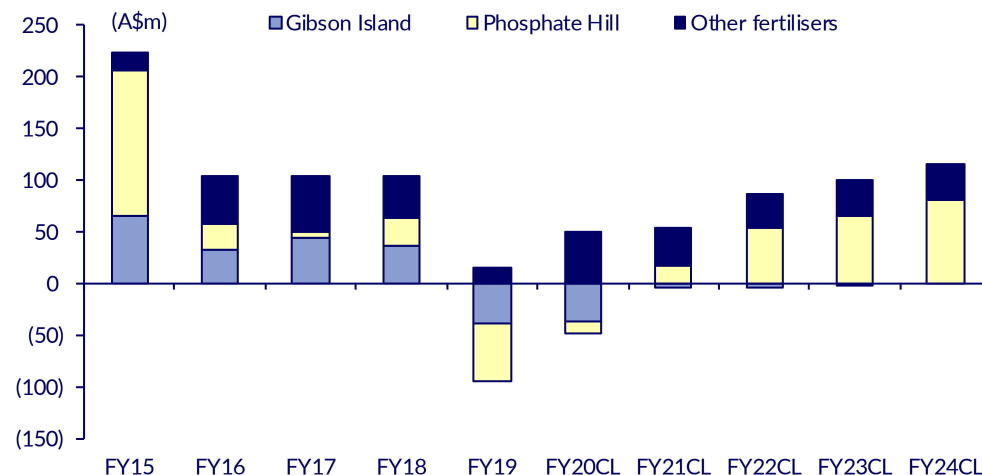
Phosphate Hill is expected to be the key driver of earnings recovery from FY21

Below we note our fertiliser forecasts, with Phosphate Hill (the expected recovery driver) reaching about A$100m Ebit in FY23, as we assume Incitec Pivot can deliver costs of about A$406/t in the longer term (versus Incitec Pivot's target of about A$400/t and normalised conditions of A$420/t).

Fertiliser Ebit forecasts



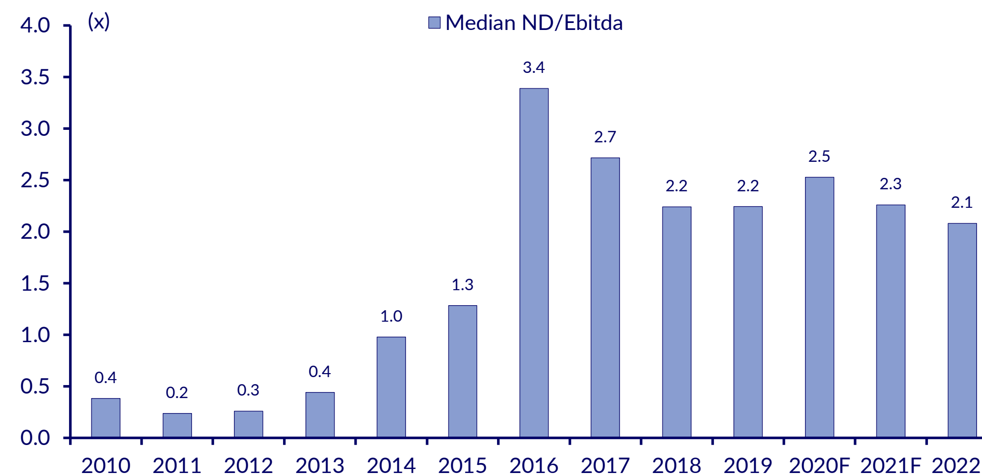
Source: Incitec Pivot, CLSA

Sale of the division

An improving fertiliser outlook and earnings recovery is a catalyst, although we believe this is the consensus expectation and risk is to the downside. In our view, a recovery is more likely a catalyst to revisit the sale of the division and that a more sustained recovery is necessary to genuinely attract buyer interest at the right price. This likely requires improvements in global fertiliser prices to generate interest from strategic buyers, given that leverage remains relatively high for offshore fertiliser/chemicals peers, as shown in the following figure.

Given cyclicality and uncertainty, a strategic buyer is likely

Fertiliser comps balance sheets



Source: FactSet, CLSA. Median of CF Industries, Mosaic, Yara, K+S, Israel Chemicals, PhosAgro.

Past transactions

To get a sense of potential valuation ranges we look at past global transactions as a rough guide, noting significantly different business mix, market share and valuations through the cycle.

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Agricultural transactions

Close year	Acquirer	Target	EV/Ebitda
2020	One Rock Capital	Innophos Holdings	9.1
2019	Nutrien	RuralCo Holdings	6.0
2018	Terra Nitrogen	24% stake not owned	7.7
2018	Yara International	Vale Cubatao Fertilizantes	8.5
2018	Potash Corp of Saskatchewan	Agrium	9.4
2018	Bayer AG	Monsanto	16.8
2018	Mosaic	Vale Fertilizante	6.6
2018	Nufarm	Century Portfolio	5.0
2018	BASF	Bayer Seed and Non-selective Herbicides	13.8
2017	FMC Corp	DuPont Crop Protection	3.4
Median			8.1

Source: companies, FactSet, CLSA

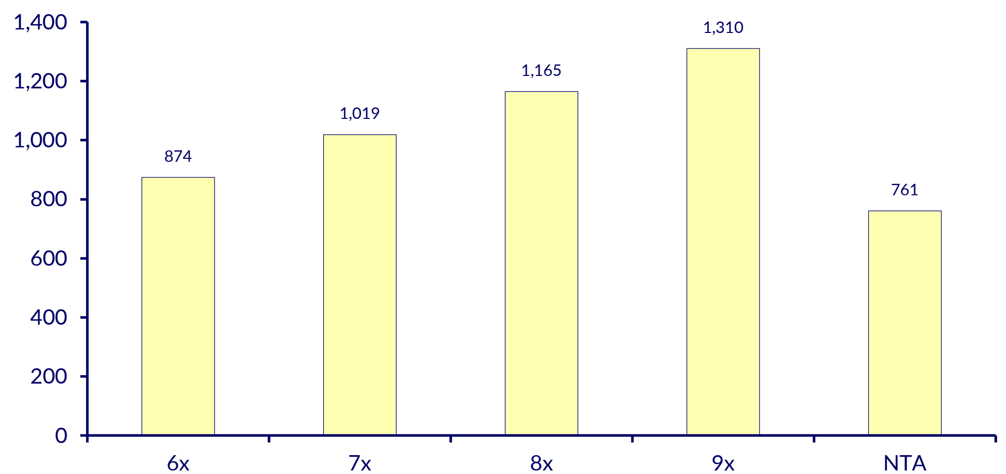
There is a wide range in the multiples paid (also impacted by trailing and forward earnings). However, if we used our FY20-22 average Ebitda of about A$146m and multiples ranging from 6-9x Ebitda, we would get a valuation range of A$870m-A$1.3bn. This compares to a book value of A$945m and net tangible assets (NTA) of A$761m.

There is potential for value realisation from a sale of the division, which could help strengthen the balance sheet, simplify the business and reduce the cyclicality of Incitec Pivot's earnings. The recent effort, notwithstanding the poor timing during the onset of a global pandemic, led to an A$660m capital raise to reduce leverage. It may be fair to assume the cyclicality and uncertainty of the business may have been unpalatable to nonstrategic buyers, in any case.

We value fertilisers at NTA

A sale price around book value (A$945m/NTA A$761m) would have been a positive outcome, which suggests such a valuation may not have been realistic. Covid-19 has caused global M&A activity to fall significantly but a strategic review did begin in early September 2019. A lower multiple may be more appropriate.

Valuation ranges



Source: CLSA

In reality, a major aspect of buying Incitec Pivot's fertiliser business is Phosphate Hill. Incitec Pivot's business has a major share of the Australia market but distribution is still leveraged to commodity prices and Gibson Island has significant gas headwinds.

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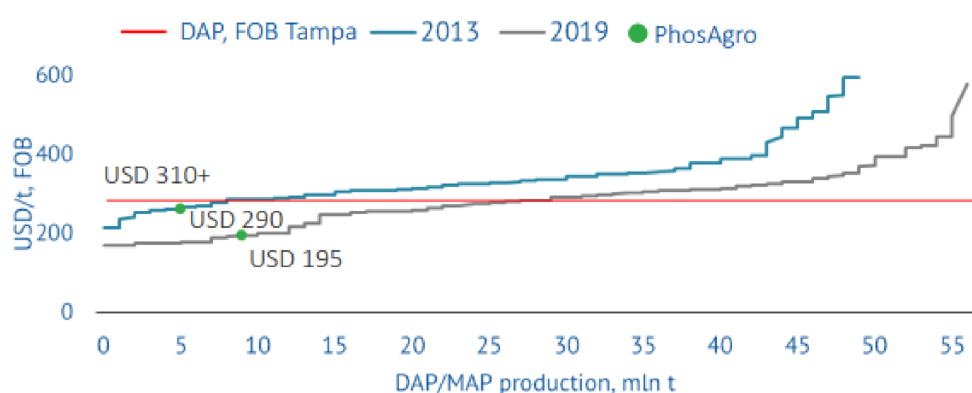
Phosphate Hill is in the upper end of the global cost curve

The aim is to bring Phosphate Hill costs down to A$400-420/t or about US$300-315/t at 0.75c long-run A$/US$ FX. This would sit the asset in about the third quartile of the global cost curve, although with movements in offshore gas pricing, it could be higher.

Global DAP cost curve 2019



Source: PhosAgro

Earnings forecasts

Below we note our earnings forecasts and include our 2H20 estimates by segment.

Incitec Pivot earnings forecasts

September year-end (A$m)	FY20CL	FY21CL	FY22CL
Dyno Nobel Americas	1,573	1,524	1,550
Dyno Nobel APAC	1,013	996	1,043
Fertilisers	1,521	1,571	1,614
Corporate & other	(63)	(61)	(63)
Total revenue	**4,044**	**4,029**	**4,144**
Opex	(3,306)	(3,256)	(3,288)
Ebitda	**738**	**774**	**856**
D&A	(358)	(345)	(355)
Ebit			
Dyno Nobel Americas	252	253	273
Dyno Nobel APAC	154	160	177
Fertilisers	5	48	83
Corporate & other	(33)	(32)	(32)
Total Ebit	**379**	**429**	**501**
Net Interest expense	(139)	(124)	(112)
Pre-tax profit	**240**	**305**	**389**
Income tax expense	(57)	(73)	(97)
Minorities	0	0	0
Underlying NPAT	**183**	**232**	**292**
Significant items	0	0	0
Reported NPAT	183	232	292
Adj. EPS (diluted)	**10.4**	**12.5**	**15.7**
DPS	**2.5**	**5.7**	**7.9**

Source: CLSA

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FY20 earnings forecasts			
Ebit (A$m)	1H20A	2H20CL	FY20CL
Dyno Nobel Americas	113	139	252
Dyno Nobel APAC	71	83	154
Fertilisers	(10)	15	5
Corporate & Other	(15)	(17)	(33)
Total	**159**	**220**	**379**

Source: CLSA

Valuation

We initiate Incitec Pivot coverage with an Underperform rating and an A$1.96 target price. Our target price is derived from our SOTP valuation.

SOTP valuation

Our SOTP valuation of A$1.96 applies an approximately 12x Ebit multiple on our FY21 Ebit forecasts. This consists of Dyno APAC at 13x Ebit and the Americas at 11x to reflect a discount to APAC, given the outlook particularly for US thermal coal and the production mix. Given that ASX industrial Ebit multiples sit at ~15x, we believe the implied discount is justified, given risk around the outlook. We use NTA for our valuation of the fertiliser division, which implies about a 10x Ebit multiple on our FY20-25 average Ebit estimate. Our implied 12x Ebit multiple estimate is slightly above Incitec Pivot's historical long-run average of about 11x.

Incitec Pivot SOTP valuation				
	FY21 Ebit	x	A$	A$/sh
DynoNobel APAC	160	13.0	2,076	1.07
DynoNobel Americas	177	11.0	1,942	1.00
Waggaman, Ag & IC	76	10.0	762	0.39
Fertilisers	48	15.8	765	0.39
Corporate	(32)	12.0	(382)	(0.20)
Total	**429**	**12.0**	**5,162**	**2.66**
Less net debt			1,121	(0.58)
Less operating leases			236	(0.12)
Equity value			**3,805**	**1.96**
Shares outstanding			1,942	
Equity value per share			**1.96**	

Source: CLSA. Note: net debt adjusted for derivative hedges.

We do not use a DCF valuation for our target price methodology. Our DCF valuation would be A$2.50, which is significantly above our SOTP and would suggest longer-term value in Incitec Pivot. However, we do not believe this is an appropriate valuation methodology, given the significantly different business mixes, particularly with fertilisers. Our DCF valuation, using an 8.6% WACC and a 2.5% terminal growth rate, implies a 16x exit multiple. We do not believe such a multiple is appropriate for Incitec Pivot's fertiliser business, as the DCF overstates the fertiliser valuation.

If we assume fertiliser capex is equal to D&A, the DCF valuation of fertilisers would be A$1.4bn, which is nearly double NTA. We value fertilisers at NTA in our SOTP. This results in about an A$0.33/share differential in our valuation. We believe the lower valuation is more appropriate given structurally challenged returns (due to elevated gas pricing, particularly Gibson Island), downside risk with respect to earnings forecasts and the fact that the business has been on the market with no interest.

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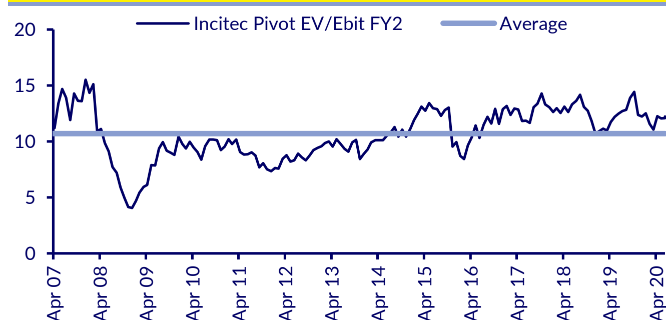
Implied valuation

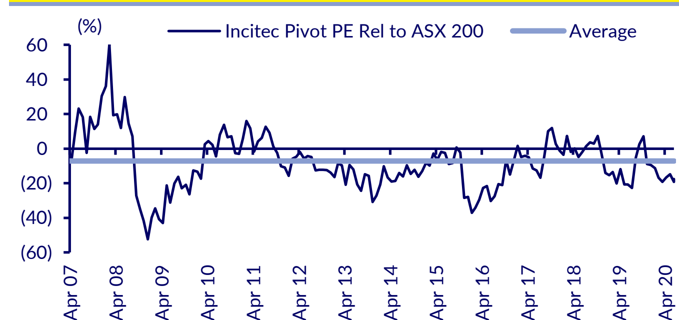
Our valuation of A$1.96 implies a FY21CL PE of 16x, which is about a 10% discount to the ASX 200 CY21 PE of 17.5x. Through the cycle, Incitec Pivot has traded at about a 7% discount to the market. In light of the highly uncertain outlook with respect to mining activity and global fertiliser prices, the current discount appears reasonable.

Incitec Pivot EV/Ebit



Source: FactSet

Incitec Pivot PE relative to ASX 200 FY2



Source: FactSet, CLSA

FY21 volumes impacted by a weaker outlook for Met coal and the Moranbah turnaround in 2H21

ASPs were flat

We assume a 15% decline in 2H20 thermal coal volumes and flat volumes thereafter, offset by Q&C and precious metals growing at about 3% YoY long term

Improving earnings at Waggaman driven by a return to nameplate volumes

There was a recovery in fertiliser earnings, driven by improving costs at Phosphate Hill

Gibson Island to continue to be challenged

Incitec Pivot segment forecast details

	FY19	FY20CL	FY21CL	FY22CL
Dyno APAC (A$m)				
Volume	786	794	772	809
Change %	*2*	*1*	*(3)*	*5*
ASP (A$/t)	**1,261**	**1,276**	**1,288**	**1,289**
Change %	*(1)*	*1*	*1*	*0*
Revenue	**991**	**1,013**	**995**	**1,043**
Change %	*1*	*2*	*(2)*	*5*
Ebit	**179**	**154**	**160**	**177**
Change %	(13)	(14)	4	11
Margin %	18.1	15.2	16.1	16.9
Ebit/t (A$/t)	228	194	207	218
Dyno US Explosives (US$m)				
Volume	**791**	**716**	**706**	**718**
Change %	*0*	*(9)*	*(1)*	*2*
ASP (US$/t)	**1,043**	**1,126**	**1,126**	**1,126**
Change %	*2*	*8*	*0*	*0*
Revenue	**825**	**807**	**795**	**809**
Change %	*2*	*(2)*	*(1)*	*2*
Ebit	**136**	**126**	**124**	**126**
Change %	5	(7)	(2)	2
Margin %	16.5	15.6	15.5	15.5
Ebit/t (A$/t)	172	176	175	175
Dyno US - Ag & Fert (US$m)				
Waggaman Ammonia Sold	**730**	**686**	**709**	**723**
Change %	*(14)*	*(6)*	*3*	*2*
ASP (US$/t)	**265**	**235**	**255**	**271**
Change %	*(6)*	*(11)*	*8*	*6*
Revenue	**193**	**161**	**181**	**196**
Change %	*(19)*	*(17)*	*12*	*9*
Waggaman Ebit	**19**	**40**	**50**	**64**
Change %	(75)	109	25	28
Margin %	9.9	24.9	27.6	32.6
Ebit/t (A$/t)	26	58	70	88
Other Ag & IC Ebit	0	3	3	3
Fertilisers (A$m)				
Gibson Island	248	350	380	380
Phosphate Hill	667	936	975	975
Distribution	2,463	2,323	2,498	2,506
Total fertiliser volumes	**3,378**	**3,609**	**3,853**	**3,861**
Gibson Island	(38)	(37)	(5)	(4)
Phosphate Hill	(57)	(11)	17	53
Distribution & other	16	50	36	34
Total fertiliser Ebit	**(80)**	**2**	**48**	**83**

Source: CLSA

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Valuation details

We value Incitec Pivot using a sum-of-the-parts valuation. Our SOTP valuation implies a 12.0x FY21 Ebit multiple consisting of 13x for Dyno APAC, 11x for Dyno Americas, 10x for US Ag/Waggaman, Australian fertilisers at NTA, and corporate at 12x.

Investment risks

Risks include lower (or higher)-than-expected commodity prices and higher (or lower)-than-expected gas input costs. For the Dyno explosives businesses, the key risks centre on growth in US thermal coal production and metallurgical coal production in Australia. In fertilisers, risks include weather, demand variations from crop sizes and risks from input costs, particularly gas and sulphuric acid. The key risks in the near-term are COVID-19 disruptions on mining activity and risks to coal production in FY21.

EQRS/BQRS

Earnings and balance-sheet risk scores (lower = better)

	Score	Comments
Earnings-quality flags		
Capex indiscipline	0	
Cash burn	0	
Rising non-core or intangibles	0	
Rising working capital	1	Mix effect from higher proportion of explosives revenue.
Poor cash conversion	0	
Earnings-quality risk score	**1/5**	
Balance-sheet-quality flags		
Cash burn	0	
Excessive leverage	1	Recent equity raise expected to reduce leverage.
Frequent fundraising	0	
Liquidity concerns	1	Recent equity raise provides headroom.
Operational stress	1	Fertiliser drag on returns.
Balance-sheet-quality risk score	**3/5**	

Source: CLSA

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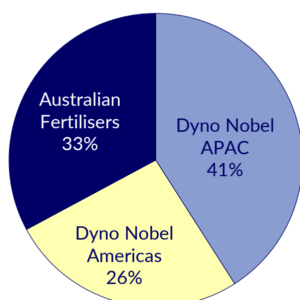
Appendix: Incitec Pivot overview

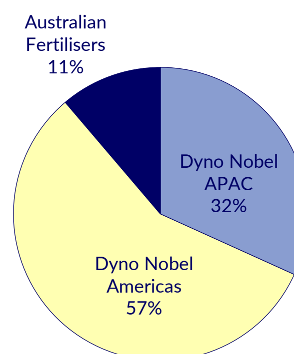
Incitec Pivot is a global leader in the production of explosives and fertilisers for the mining, construction and agricultural industries. The company can be split into Dyno Nobel (AN explosives) and fertilisers. Its Dyno APAC segment is the largest revenue driver of the group but Dyno Americas is the largest contributor to group earnings. Fertilisers have been loss making at the Ebit level for the past 18 months (-A$10m in 1H20), down from c.A$200m Ebit in FY14/15.

Incitec Pivot revenue by region - 1H20



Source: CLSA, Incitec Pivot

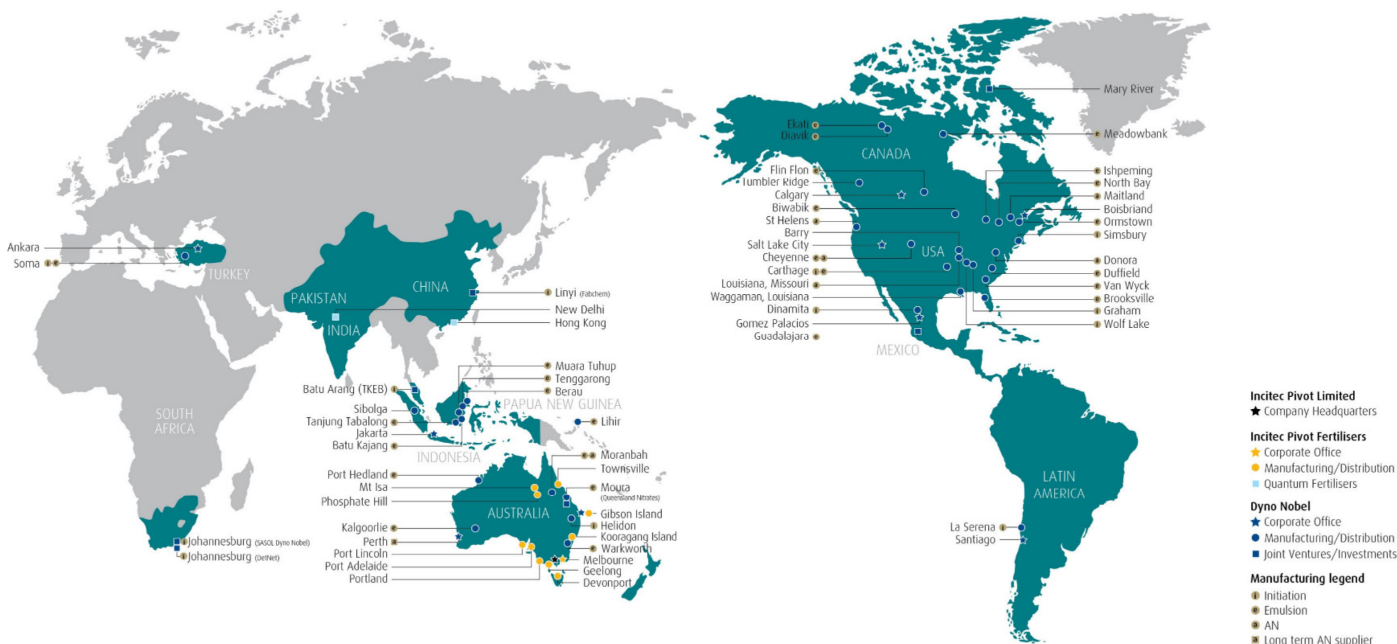
Incitec Pivot Ebitda by region - 1H20



Source: CLSA, Incitec Pivot

Incitec Pivot has a number of global facilities producing ammonia nitrate and fertilisers (Urea, DAP) in the USA and Australia.

Incitec Pivot facilities



Source: Incitec Pivot

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Dyno Nobel Manufacturing

Dyno Nobel produces AN in Australia and the USA. A key feature of Incitec Pivot's production is its manufacturing skew to back to gas production. In the USA, Dyno is short AN.

Dyno Nobel ammonia / ammonia nitrate plants

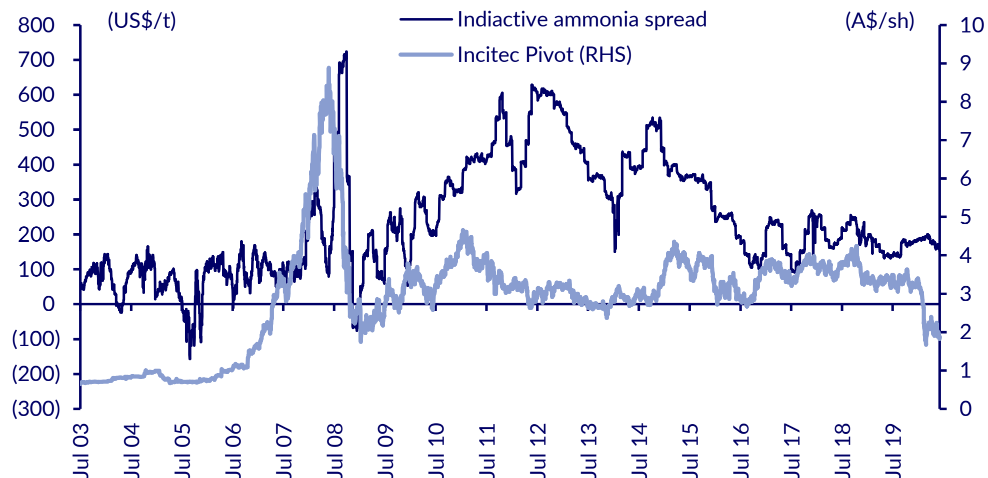
Plant	Capacity (kt)	Production type	Primary customers
Ammonia Nitrate			
Moranbah, QLD	380	Back to Gas	QLD Met Coal
Moura, QLD[1]	215	Back to Gas	Central Aus Precious Metals
Cheyenne, Wyoming	c.400.	Back to Gas	US Thermal Coal
Louisiana, Missouri	na	Back to Ammonia	Thermal Coal; Q&C
Ammonia			
Waggaman	800	Back to Gas	2/3 External; 1/3 Feed Incitec Pivot plants

[1] Moura 50/50 JV with CSBP. Source: CLSA, Incitec Pivot

This is why Incitec Pivot is highly sensitive to ammonia prices (and gas input costs). The company also purchases AN in WA from CSBP to service iron ore customers, particularly FMG in the Pilbara.

Incitec Pivot is sensitive to ammonia gas spread due to Waggaman

Incitec Pivot vs Ammonia Spread



Source: CLSA, Incitec Pivot

Dyno Nobel APAC

Dyno Nobel APAC is heavily weighted to metallurgical (met) coal, servicing the Bowen Basin out of Moranbah. The APAC division also includes the 50/50 joint venture at Moura with CSBP, which services central Australian precious metals producers. Iron ore customers are serviced through AN purchases in the west from CSBP.

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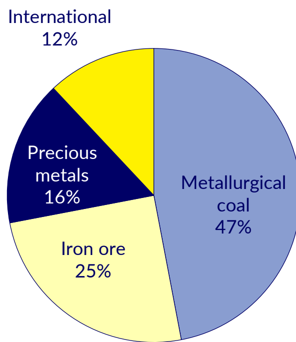
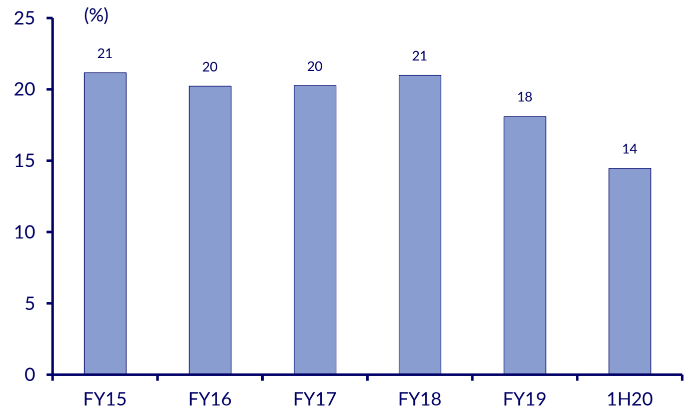
Dyno Nobel APAC revenue mix - 1H20



Source: CLSA, Incitec Pivot. International - Indonesian thermal coal, Turkey volumes

Dyno Nobel APAC margin



Source: Incitec Pivot

The earnings mix within Dyno APAC will be significantly different from revenue mix. Earnings will be weighted to the east coast.

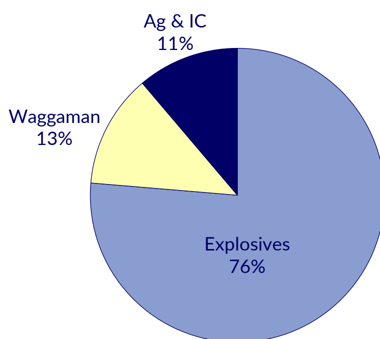
Moranbah is one of Incitec Pivot's key competitive advantages due to its high manufacturing reliability, at-capacity production, close proximity to key customers and fixed price gas contracts until 2026 (which increase at CPI). Its customers are also at the bottom of the cost curve - providing freight cost advantages over the Yarwun and Moura locations. Statutory accounts show that QNP generated A$14m of NPAT in FY19 (taken through the Ebit line). Margins on the east coast have come down significantly due to contract repricing and gas pricing, particularly from c.30% Ebit margins generated at Moranbah in FY15/16.

The margin generated on iron ore volumes will be significantly lower due to CSBP take or pay volumes, which will be renegotiated in 2022. It is important for Incitec Pivot to continue driving IS and emulsion in the west to improve margins.

Dyno Nobel Americas

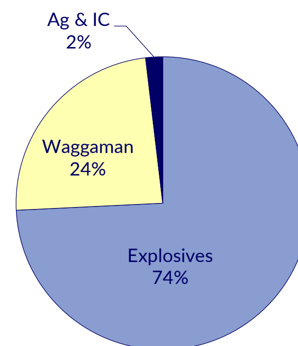
The Dyno Nobel Americas segment can be split into ammonia nitrate (AN) production (explosives), Waggaman (ammonia production) and the small fertiliser/ag business. Revenue and earnings contributions are consistent.

Dyno Nobel Americas revenue



Source: CLSA, Incitec Pivot

Dyno Nobel Americas Ebit



Source: CLSA, Incitec Pivot

Roughly half of Incitec Pivot's US AN volumes go into the thermal coal sector, particularly in the Powder River and Illinois Basins.

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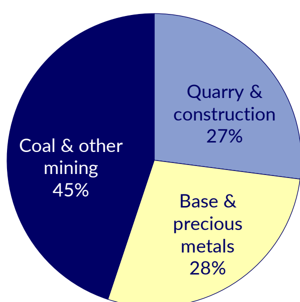
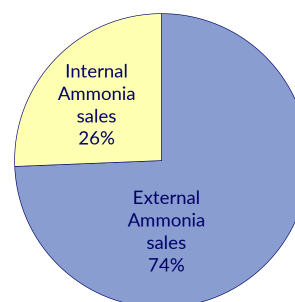
Waggaman external ammonia sales account for about 75% of the total. We note the original Waggaman plan was for a 2/3 external, 1/3 internal volume distribution (feeding the Cheyenne and Louisiana AN/Urea plants).

Ammonia nitrate volumes - 1H20



Source: Incitec Pivot

Waggaman Ammonia sales - 1H20



Source: Incitec Pivot

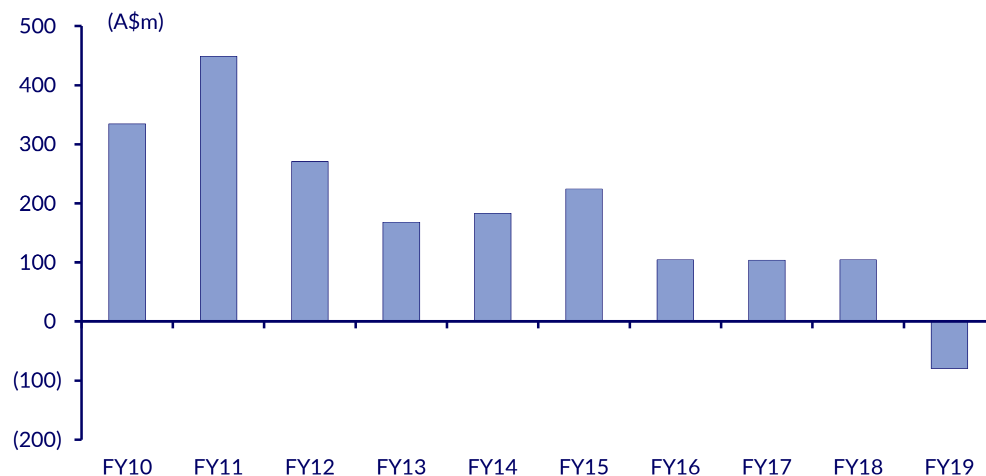
Australian fertilisers

Incitec Pivot's fertiliser business mainly produces nitrogen and phosphate fertilisers (Urea and DAP) sold on the east coast of Australia. Incitec Pivot is the dominant player in the Australian fertiliser market with more than 50% market share.

The business consists of Incitec Pivot Fertilisers and Southern Cross International, which both consist of fertiliser production and distribution channels. Fertilisers have been loss making at the Ebit level for the past 18 months (-A$10m in 1H20), down from c.A$200m Ebit in FY14/15, driven by poor crop volumes (Australian drought) and production cost headwinds.

Profitability has been highly volatile

Incitec Pivot Fertiliser Ebit



Source: CLSA, Incitec Pivot

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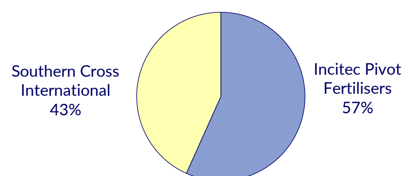
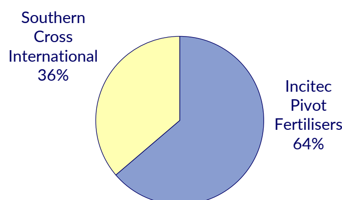
Incitec Pivot Volumes 1H20



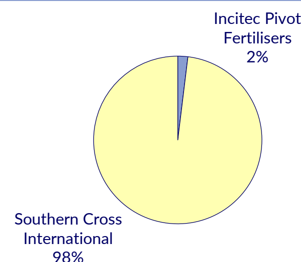
Source: CLSA, Incitec Pivot

Incitec Pivot Revenue 1H20



Source: CLSA, Incitec Pivot

Incitec Pivot Ebitda 1H20

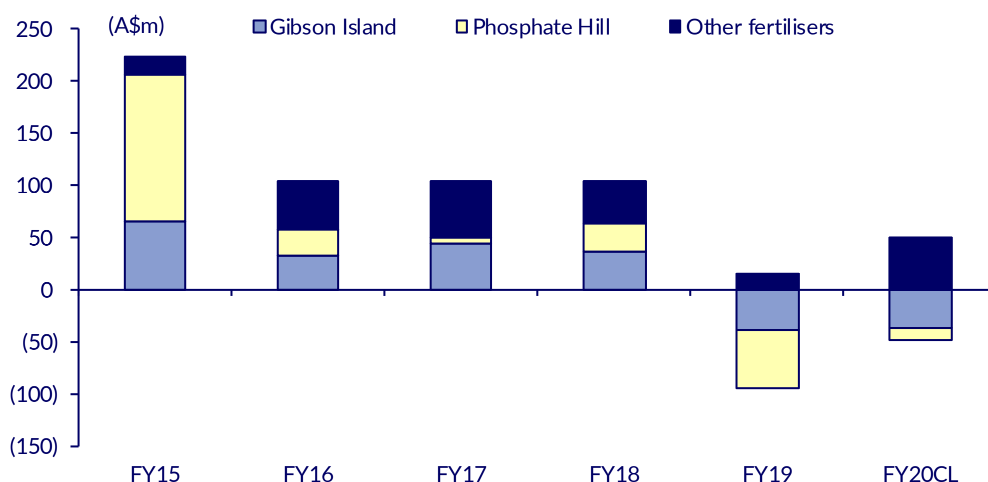


Source: CLSA, Incitec Pivot

Phosphate Hill will be the key driver of earnings recovery from FY21

The two manufacturing plants, Phosphate Hill (DAP production which sits in SCI) and Gibson Island (Urea production in IPF), are the drivers of earnings.

Ebit contribution



Source: CLSA, Incitec Pivot

A combination of softening DAP prices, high gas costs and lower volumes has challenged Phosphate Hill earnings. However, a new gas contract is in place until 2028, providing some benefit. There is some uncertainty around the future supply of sulphuric acid (2/3 from Glencore Mt Isa by-product).

Elevated operating costs from gas prices have created challenges for Gibson Island. The future of the plant was uncertain. However, a temporary contract until December 2022 was expected to provide some slight benefit in 2H20. Ultimately, without further improvement in gas prices, the future of the plant will be tested.

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Detailed financials

Profit & Loss (A$m)

Year to 30 September	2016A	2017A	2018A	2019A	2020CL	2021CL	2022CL
Revenue	**3,354**	**3,473**	**3,856**	**3,918**	**4,044**	**4,029**	**4,144**
Cogs (ex-D&A)	(2,681)	(2,699)	(3,005)	(3,313)	(3,306)	(3,256)	(3,288)
Gross Profit (ex-D&A)	**673**	**775**	**851**	**605**	**738**	**774**	**856**
Research & development costs	-	-	-	-	-	-	-
Selling & marketing expenses	-	-	-	-	-	-	-
Other SG&A	-	-	-	-	-	-	-
Other Op Expenses ex-D&A	-	-	-	-	-	-	-
Op Ebitda	**673**	**775**	**851**	**605**	**738**	**774**	**856**
Depreciation/amortisation	(245)	(273)	(294)	(302)	(358)	(345)	(355)
Op Ebit	**428**	**501**	**557**	**304**	**379**	**429**	**501**
Interest income	9	5	6	5	3	4	5
Interest expense	(59)	(114)	(134)	(149)	(142)	(128)	(116)
Net interest inc/(exp)	(50)	(109)	(128)	(144)	(139)	(124)	(111)
Associates/investments	-	-	-	-	-	-	-
Forex/other income	-	-	-	-	-	-	-
Asset sales/other cash items	-	-	-	-	-	-	-
Provisions/other non-cash items	-	-	-	-	-	-	-
Asset revaluation/Exceptional items	-	-	-	-	-	-	-
Profit before tax	**378**	**393**	**429**	**160**	**240**	**305**	**389**
Taxation	(81)	(71)	(78)	(8)	(57)	(73)	(97)
Profit after tax	**296**	**322**	**350**	**152**	**183**	**232**	**292**
Preference dividends	-	-	-	-	-	-	-
Profit for period	**296**	**322**	**350**	**152**	**183**	**232**	**292**
Minority interest	(1)	(3)	(3)	0	0	0	0
Net profit	**295**	**319**	**347**	**152**	**183**	**232**	**292**
Extraordinaries/others	(167)	0	(140)	0	0	0	0
Profit avail to ordinary shares	128	319	208	152	183	232	292
Dividends	(147)	(159)	(179)	(76)	(47)	(106)	(146)
Retained profit	(19)	160	29	77	136	125	146
Adjusted profit	**295**	**319**	**347**	**152**	**183**	**232**	**292**
EPS (A¢)	17.5	18.9	20.9	9.5	9.8	12.5	15.7
Adj EPS [pre excep] (A¢)	17.5	18.9	20.9	9.5	9.8	12.5	15.7
Core EPS (A¢)	17.5	18.9	20.9	9.5	9.8	12.5	15.7
DPS (A¢)	8.7	9.4	10.7	4.7	2.5	5.7	7.9

Profit & loss ratios

Year to 30 September	2016A	2017A	2018A	2019A	2020CL	2021CL	2022CL
Growth (%)							
Revenue growth (% YoY)	(7.9)	3.6	11.0	1.6	3.2	(0.4)	2.8
Ebitda growth (% YoY)	(18.5)	15.2	9.9	(28.9)	21.8	4.9	10.6
Ebit growth (% YoY)	(25.7)	17.1	11.1	(45.4)	24.8	13.1	16.8
Net profit growth (%)	(25.9)	8.0	9.0	(56.1)	20.1	26.6	26.1
EPS growth (% YoY)	(26.5)	7.9	10.5	(54.6)	4.0	26.6	26.1
Adj EPS growth (% YoY)	(26.5)	7.9	10.5	(54.6)	4.0	26.6	26.1
DPS growth (% YoY)	(26.3)	8.0	13.8	(56.1)	(45.8)	124.4	37.4
Core EPS growth (% YoY)	(26.5)	7.9	10.5	(54.6)	4.0	26.6	26.1
Margins (%)							
Ebitda margin (%)	20.1	22.3	22.1	15.4	18.2	19.2	20.6
Ebit margin (%)	12.8	14.4	14.4	7.8	9.4	10.6	12.1
Net profit margin (%)	8.8	9.2	9.0	3.9	4.5	5.8	7.0
Core profit margin	8.8	9.2	9.0	3.9	4.5	5.8	7.0
Op cashflow margin	17.2	18.6	17.2	10.6	15.5	13.9	15.5
Returns (%)							
ROE (%)	6.4	6.8	7.3	3.2	3.6	4.1	5.1
ROA (%)	3.8	4.7	5.1	3.2	3.0	3.3	3.7
ROIC (%)	4.8	6.0	6.7	4.1	3.9	4.3	5.0
ROCE (%)	6.5	7.8	8.6	4.6	5.5	6.1	7.1
Other key ratios (%)							
Effective tax rate (%)	21.5	18.1	18.3	4.7	23.7	24.0	25.0
Ebitda/net int exp (x)	13.4	7.1	6.6	4.2	5.3	6.2	7.7
Exceptional or extraord. inc/PBT (%)	-	-	-	-	-	-	-
Dividend payout (%)	49.7	49.8	51.3	49.7	25.9	45.9	50.0

Source: www.clsa.com

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Balance sheet (A$m)

Year to 30 September	2016A	2017A	2018A	2019A	2020CL	2021CL	2022CL
Cash & equivalents	427	628	589	576	476	549	659
Accounts receivable	256	338	312	317	364	358	365
Inventories	406	389	495	601	562	554	564
Other current assets	53	99	77	57	84	84	84
Current assets	**1,142**	**1,453**	**1,472**	**1,551**	**1,486**	**1,545**	**1,672**
Fixed assets	3,893	3,855	4,004	4,190	4,341	4,338	4,327
Investments	318	317	336	358	369	369	369
Goodwill	2,770	2,732	2,618	2,725	2,725	2,725	2,725
Other intangible assets	412	389	428	455	646	646	646
Other non-current assets	144	76	95	102	363	363	363
Total assets	**8,679**	**8,822**	**8,954**	**9,380**	**9,929**	**9,986**	**10,102**
Short term loans/OD	11	12	213	1,213	25	25	25
Accounts payable	940	1,044	1,045	1,152	1,206	1,178	1,188
Accrued expenses	114	78	76	86	82	82	82
Taxes payable	0	12	56	13	42	42	42
Other current liabs	5	19	18	39	190	190	190
Current liabilities	**1,070**	**1,165**	**1,407**	**2,504**	**1,545**	**1,516**	**1,526**
Long-term debt/leases/other	2,278	2,212	2,162	1,443	1,873	1,832	1,792
Convertible bonds	-	-	-	-	-	-	-
Provisions/other LT liabs	754	686	641	745	934	934	933
Total liabilities	**4,103**	**4,063**	**4,210**	**4,692**	**4,351**	**4,282**	**4,252**
Share capital	3,437	3,437	3,227	3,137	3,836	3,836	3,836
Retained earnings	1,323	1,514	1,567	1,571	1,627	1,753	1,899
Reserves/others	(187)	(198)	(55)	(20)	115	115	116
Shareholder funds	**4,572**	**4,753**	**4,738**	**4,688**	**5,578**	**5,704**	**5,850**
Minorities/other equity	4	6	7	0	0	0	0
Total equity	**4,576**	**4,759**	**4,744**	**4,688**	**5,578**	**5,704**	**5,850**
Total liabs & equity	**8,679**	**8,822**	**8,954**	**9,380**	**9,929**	**9,986**	**10,102**
Total debt	2,289	2,224	2,375	2,656	1,897	1,857	1,817
Net debt	1,862	1,596	1,786	2,080	1,421	1,308	1,158
Adjusted EV	4,805	4,542	4,603	4,821	4,801	4,688	4,537
BVPS (A¢)	271.0	281.7	290.6	291.9	287.2	293.7	301.2

Balance sheet ratios

Year to 30 September	2016A	2017A	2018A	2019A	2020CL	2021CL	2022CL
Key ratios							
Current ratio (x)	1.1	1.2	1.0	0.6	1.0	1.0	1.1
Growth in total assets (% YoY)	(5.6)	1.6	1.5	4.8	5.9	0.6	1.2
Growth in capital employed (% YoY)	(3.0)	(1.3)	2.8	3.6	3.4	0.2	(0.1)
Net debt to operating cashflow (x)	3.2	2.5	2.7	5.0	2.3	2.3	1.8
Gross debt to operating cashflow (x)	4.0	3.4	3.6	6.4	3.0	3.3	2.8
Gross debt to Ebitda (x)	3.4	2.9	2.8	4.4	2.6	2.4	2.1
Net debt/Ebitda (x)	2.8	2.1	2.1	3.4	1.9	1.7	1.4
Gearing							
Net debt/equity (%)	40.7	33.5	37.7	44.4	25.5	22.9	19.8
Gross debt/equity (%)	50.0	46.7	50.1	56.7	34.0	32.6	31.1
Interest cover (x)	7.4	4.4	4.2	2.1	2.7	3.4	4.4
Debt Cover (x)	0.3	0.3	0.3	0.2	0.3	0.3	0.4
Working capital analysis							
Inventory days	54.9	53.7	53.7	60.4	64.2	62.6	62.1
Debtor days	29.7	31.2	30.7	29.3	30.7	32.7	31.8
Creditor days	124.4	134.1	126.8	121.0	130.2	133.7	131.3
Working capital/Sales (%)	(10.3)	(9.4)	(8.1)	(8.1)	(12.6)	(12.3)	(11.8)
Capital employed analysis							
Sales/Capital employed (%)	52.1	54.7	59.1	57.9	57.8	57.5	59.1
EV/Capital employed (%)	74.6	71.5	70.5	71.2	68.6	66.9	64.7
Working capital/Capital employed (%)	(5.3)	(5.2)	(4.8)	(4.7)	(7.3)	(7.1)	(7.0)
Fixed capital/Capital employed (%)	60.5	60.7	61.3	61.9	62.0	61.9	61.8
Other ratios (%)							
EV/OCF (x)	8.4	7.0	6.9	11.6	7.7	8.3	7.1
EV/FCF (x)	34.4	13.8	13.6	72.3	14.5	21.4	15.3
EV/Sales (x)	1.4	1.3	1.2	1.2	1.2	1.2	1.1
Capex/depreciation (%)	178.1	117.0	110.5	115.4	82.5	99.2	97.0

Source: www.clsa.com

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Cashflow (A$m)

Year to 30 September	2016A	2017A	2018A	2019A	2020CL	2021CL	2022CL
Operating profit	428	501	557	304	379	429	501
Operating adjustments	(13)	(18)	(67)	(26)	81	0	0
Depreciation/amortisation	245	273	294	302	358	345	355
Working capital changes	39	(4)	7	(12)	(2)	(15)	(6)
Interest paid / other financial expenses	(42)	(92)	(116)	(131)	(141)	(124)	(111)
Tax paid	(82)	(13)	(12)	(21)	(49)	(73)	(97)
Other non-cash operating items	-	-	-	-	-	-	-
Net operating cashflow	575	648	663	415	626	561	641
Capital expenditure	(436)	(320)	(325)	(348)	(296)	(342)	(344)
Free cashflow	140	328	337	67	331	219	297
Acq/inv/disposals	(45)	33	(5)	1	(57)	-	-
Int, invt & associate div	-	-	-	-	-	-	-
Net investing cashflow	(480)	(287)	(331)	(348)	(353)	(342)	(344)
Increase in loans	(69)	3	(3)	124	(932)	0	0
Dividends	(194)	(154)	(157)	(122)	(78)	(106)	(146)
Net equity raised/others	-	-	(215)	(90)	633	(40)	(40)
Net financing cashflow	(263)	(151)	(376)	(88)	(377)	(147)	(186)
Incr/(decr) in net cash	(168)	210	(44)	(21)	(103)	73	110
Exch rate movements	(11)	(10)	4	9	3	0	0
Opening cash	606	427	628	589	576	476	549
Closing cash	427	628	589	576	476	549	659
OCF PS (A¢)	34.1	38.4	39.8	25.8	33.7	30.2	34.5
FCF PS (A¢)	8.3	19.4	20.3	4.1	17.8	11.8	16.0

Cashflow ratio analysis

Year to 30 September	2016A	2017A	2018A	2019A	2020CL	2021CL	2022CL
Growth (%)							
Op cashflow growth (% YoY)	(23.9)	12.6	2.3	(37.4)	51.0	(10.4)	14.1
FCF growth (% YoY)	(63.5)	134.6	2.9	(80.2)	395.6	(33.6)	35.2
Capex growth (%)	16.8	(26.6)	1.8	7.0	(15.0)	15.6	0.6
Other key ratios (%)							
Capex/sales (%)	13.0	9.2	8.4	8.9	7.3	8.5	8.3
Capex/op cashflow (%)	75.7	49.4	49.1	83.9	47.2	60.9	53.7
Operating cashflow payout ratio (%)	25.5	24.5	26.9	18.2	7.6	18.9	22.8
Cashflow payout ratio (%)	25.5	24.5	27.0	18.3	7.6	18.9	22.8
Free cashflow payout ratio (%)	105.0	48.4	53.0	113.5	14.3	48.4	49.2

DuPont analysis

Year to 30 September	2016A	2017A	2018A	2019A	2020CL	2021CL	2022CL
Ebit margin (%)	12.8	14.4	14.4	7.8	9.4	10.6	12.1
Asset turnover (x)	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Interest burden (x)	0.9	0.8	0.8	0.5	0.6	0.7	0.8
Tax burden (x)	0.8	0.8	0.8	1.0	0.8	0.8	0.8
Return on assets (%)	3.8	4.7	5.1	3.2	3.0	3.3	3.7
Leverage (x)	1.9	1.9	1.9	1.9	1.9	1.8	1.7
ROE (%)	6.4	6.9	7.4	3.2	3.6	4.1	5.1

EVA® analysis

Year to 30 September	2016A	2017A	2018A	2019A	2020CL	2021CL	2022CL
Ebit adj for tax	336	411	455	289	289	326	376
Average invested capital	6,996	6,799	6,779	6,995	7,360	7,571	7,574
ROIC (%)	4.8	6.0	6.7	4.1	3.9	4.3	5.0
Cost of equity (%)	9.7	9.7	9.7	9.7	9.7	9.7	9.7
Cost of debt (adj for tax)	4.7	4.9	4.9	5.7	4.6	4.6	4.5
Weighted average cost of capital (%)	8.8	8.9	8.9	9.0	8.8	8.8	8.8
EVA/IC (%)	(4.0)	(2.8)	(2.2)	(4.9)	(4.9)	(4.5)	(3.8)
EVA (A$m)	(282)	(192)	(146)	(340)	(359)	(341)	(291)

Source: www.clsa.com

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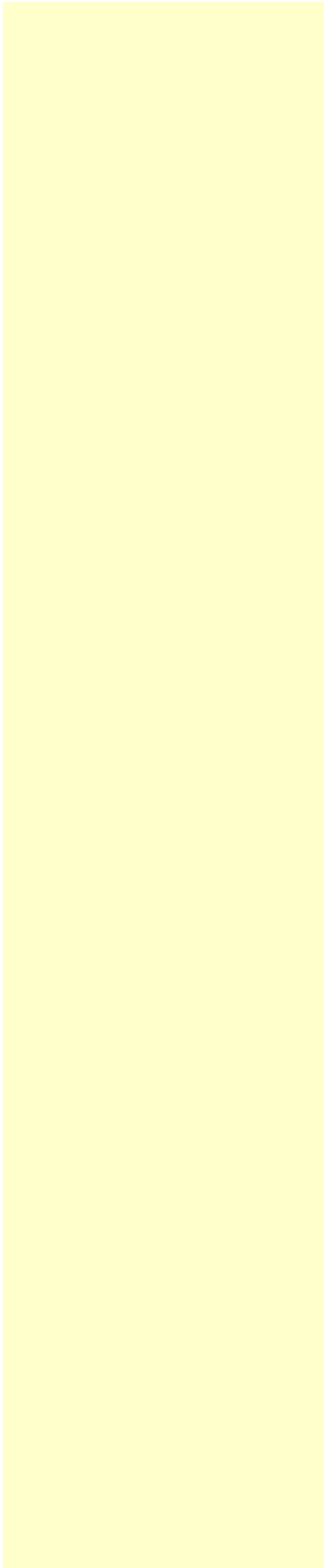

Notes

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CLSA

Orica

A$16.54 - UNDERPERFORM

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2 July 2020

Australia
Materials

Reuters	ORI.AX
Bloomberg	ORI AU
Priced on 1 July 2020	
ASX200 @ 5,934.4	
12M hi/lo	A$24.24/14.30
12M price target	A$17.10
±% potential	+3%
Shares in issue	405.6m
Free float (est.)	100.0%
Market cap	US$4.6bn
3M ADV	US$20.0m
Foreign s'holding	30.0%

Major shareholders
Harris Associates 8.4%
Cooper Investors 5.0%

Blended ESG Score (%)*	
Overall	76.1
Country average	83.6
GEM sector average	66.8

*Click to visit company page on clsa.com for details

Stock performance (%)

	1M	3M	12M
Absolute	(4.7)	(2.2)	(18.9)
Relative	(6.6)	(13.3)	(9.2)
Abs (US$)	(1.4)	9.4	(20.1)

Source: Bloomberg

At the coal face

Well-positioned but short-term outlook limits upside

We initiate on diversified chemicals manufacturer Orica with an Underperform rating and a A$17.10 target. The key to our investment thesis is whether 10-12% returns on capital and low-single-digit YoY organic earnings growth justify a 19x FY21CL PE. Near term, disrupted regions such as Latin America, Indonesia and Europe will challenge volumes. In Australia, the successful Burrup plant ramp up should be taken positively, but it is more than offset by rising risks from thermal coal. We conclude Orica's return profile and outlook do not justify its current price.

Near-term weakness from offshore Covid-19 impact

A thermal coal structural downturn appears to have more downside risk and we expect short-term difficulty for coking coal producers. We believe the risks are to the downside for a more sustained mining disruption in markets such as Latin America. This appears to be captured in Orica's c.5-10% 2H20 volume decline guidance, but the key risk in our view is from coal in Australia and the impact on FY21 volumes.

Explosives market competitive, with structural and cyclical headwinds

The industry has some favourable forces - threat of substitution and new entrants are low - but these appear outweighed by high buying power from key mining customers. We are cautious on the Australian ammonium nitrate (AN) outlook, given that coal weakness could exacerbate oversupply from Burrup. This comes at a time when Orica re-contract about 40% of volumes in FY21. Combined with miners focused on cutting costs, we take a cautious approach on AN pricing upside.

Orica a good business, but do returns meet its multiple?

In our view, Orica is a quality business with a strong balance sheet but we do not believe its return profile and short-term earnings outlook justify its premium valuation. We see sustained regional mining disruption risks. In Australia, Burrup's successful ramp up should be taken positively, but it could be offset by increasing risks from thermal coal in New South Wales and Indonesia.

Initiate at Underperform; A$17.10 target price

The keys to our investment thesis are whether low-single-digit YoY organic earnings growth and 10-12% returns on capital justify a 19x FY21CL PE and the risk of continued short-term earnings disruptions. Pre-Covid-19, Orica did not reflect longer-term structural risks. At current levels, the price reflects short-term risk but not extended disruption or structural change. We initiate coverage with an Underperform rating and a DCF/SOTP-based A$17.10 target price.

Financials

Year to 30 September	18A	19A	20CL	21CL	22CL
Revenue (A$m)	5,374	5,878	5,771	6,041	6,214
Net profit (A$m)	324	372	319	354	414
EPS (A¢)	85.1	97.5	78.7	87.3	102.0
CL/consensus (11) (EPS%)	-	-	93	87	90
EPS growth (% YoY)	(16.5)	14.5	(19.3)	10.9	16.9
PE (x)	19.4	17.0	21.0	19.0	16.2
Dividend yield (%)	3.1	3.3	2.5	3.2	3.7
FCF yield (%)	4.6	5.1	3.0	5.5	6.8
ROE (%)	11.1	12.7	9.5	9.3	10.4
Net debt/equity (%)	55.6	53.6	43.5	38.0	31.4

Source: www.clsa.com

Find CLSA research on Bloomberg, Thomson Reuters, FactSet and CapitalIQ - and profit from our **evalu@tor** proprietary database at clsa.com

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evalu@tor The Global Equities Database

Financials at a glance

Year to 30 September	2018A	2019A	2020CL	(% YoY)	2021CL	2022CL
Profit & Loss (A$m)						
Revenue	**5,374**	**5,878**	**5,771**	*(1.8)*	**6,041**	**6,214**
Cogs (ex-D&A)	(4,489)	(4,937)	(4,816)		(5,027)	(5,119)
Gross Profit (ex-D&A)	**885**	**941**	**955**	*1.5*	**1,014**	**1,095**
SG&A and other expenses	0	-	-		-	-
Op Ebitda	**885**	**941**	**955**	*1.5*	**1,014**	**1,095**
Depreciation/amortisation	(267)	(276)	(349)		(360)	(369)
Op Ebit	**618**	**665**	**606**	*(8.8)*	**654**	**726**
Net interest inc/(exp)	(121)	(110)	(131)		(127)	(112)
Other non-Op items	0	0	0		0	-
Profit before tax	**497**	**555**	**475**	*(14.5)*	**526**	**614**
Taxation	(158)	(178)	(152)		(168)	(196)
Profit after tax	**339**	**377**	**323**	*(14.4)*	**358**	**418**
Minority interest	(15)	(5)	(4)		(4)	(4)
Net profit	**324**	**372**	**319**	*(14.2)*	**354**	**414**
Adjusted profit	**324**	**372**	**319**	*(14.2)*	**354**	**414**
Cashflow (A$m)	**2018A**	**2019A**	**2020CL**	**(% YoY)**	**2021CL**	**2022CL**
Operating profit	**618**	**665**	**606**	*(8.8)*	**654**	**726**
Depreciation/amortisation	267	276	349	*26.2*	360	369
Working capital changes	(10)	13	29	*119.9*	(34)	(5)
Other items	(260)	(208)	(321)		(267)	(280)
Net operating cashflow	**615**	**746**	**662**	*(11.2)*	**712**	**810**
Capital expenditure	(322)	(424)	(462)		(343)	(354)
Free cashflow	**293**	**322**	**200**	*(37.9)*	**369**	**456**
M&A/Others	(243)	38	(293)		0	0
Net investing cashflow	**(566)**	**(386)**	**(755)**		**(343)**	**(354)**
Increase in loans	77	(301)	445		(600)	0
Dividends	(143)	(177)	(217)		(214)	(250)
Net equity raised/other	(1)	0	476		0	0
Net financing cashflow	**(67)**	**(479)**	**704**		**(814)**	**(250)**
Incr/(decr) in net cash	(18)	(119)	611		(445)	206
Exch rate movements	13	20	9	*(55.3)*	0	0
Balance sheet (A$m)	**2018A**	**2019A**	**2020CL**	**(% YoY)**	**2021CL**	**2022CL**
Cash & equivalents	511	413	1,033	*150.3*	588	794
Accounts receivable	655	682	646	*(5.2)*	705	714
Other current assets	794	742	923	*24.5*	973	981
Fixed assets	2,866	2,900	3,651	*25.9*	3,634	3,619
Investments	213	301	312	*3.6*	283	255
Intangible assets	1,698	1,690	1,793	*6.1*	1,793	1,793
Other non-current assets	427	568	525	*(7.5)*	525	525
Total assets	**7,164**	**7,294**	**8,884**	*21.8*	**8,501**	**8,681**
Short-term debt	158	61	559	*817.2*	559	559
Accounts payable	862	863	818	*(5.2)*	893	904
Other current liabs	591	711	706	*(0.6)*	706	706
Long-term debt/CBs	2,005	1,972	2,127	*7.8*	1,527	1,527
Provisions/other LT liabs	580	662	877	*32.5*	877	877
Shareholder funds	2,903	2,968	3,739	*26*	3,878	4,043
Minorities/other equity	65	57	58	*1.2*	62	65
Total liabs & equity	**7,164**	**7,294**	**8,884**	*21.8*	**8,501**	**8,681**
Ratio analysis	**2018A**	**2019A**	**2020CL**	**(% YoY)**	**2021CL**	**2022CL**
Revenue growth (% YoY)	6.6	9.4	(1.8)		4.7	2.9
Ebitda margin (%)	16.5	16.0	16.5		16.8	17.6
Ebit margin (%)	11.5	11.3	10.5		10.8	11.7
Net profit growth (%)	(16.1)	14.7	(14.2)		10.9	16.9
Op cashflow growth (% YoY)	31.8	21.4	(11.2)		7.5	13.8
Capex/sales (%)	6.0	7.2	8.0		5.7	5.7
Net debt/equity (%)	55.6	53.6	43.5		38.0	31.4
Net debt/Ebitda (x)	1.9	1.7	1.7		1.5	1.2
ROE (%)	11.1	12.7	9.5		9.3	10.4
ROIC (%)	8.6	9.0	7.5		7.4	8.2

Source: www.clsa.com

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Earnings forecasts

We forecast FY20 Ebit of A$606m, which implies about a 10% YoY decline ex-AASB 16. The main driver behind the short-term decline is the 7% YoY volume decline in 2H20, in line with guidance (10-15% below pre Covid-19 levels which appeared to be around 5% growth).

Our forecasts assume a step up in FY21, benefitting from the full-year contribution of Exsa and synergies starting to flow through. The rate of growth is partially offset by lower volumes in APAC in FY21 (-2% YoY) and flat margin to reflect coal weakness, particularly thermal coal as seen on page 65.

This should continue in FY22, when incremental margin expansion should come from SAP transformation benefits (15% return on capital or about A$40m Ebit), although in our view it is more likely that benefits are reinvested into new technology to drive the top line.

Orica earnings forecasts

September year-end (A$m)	FY20CL	FY21CL	FY22CL
APAC	2,235	2,234	2,301
North America	1,567	1,534	1,566
Latin America	974	1,230	1,279
EMEA	816	812	837
Minova	537	550	561
Monitor	110	118	124
Corporate & other	(467)	(437)	(453)
Total revenue	**5,771**	**6,041**	**6,214**
Opex	(4,816)	(5,027)	(5,119)
Ebitda	**955**	**1,014**	**1,095**
D&A	(349)	(360)	(369)
Ebit			
APAC	368	378	418
North America	173	186	194
Latin America	33	58	73
EMEA	50	49	55
Minova	21	21	21
Monitor	20	24	27
Corporate & other	(60)	(62)	(63)
Total Ebit	**606**	**654**	**726**
Net Interest expense	(131)	(127)	(112)
Pre-tax profit	**475**	**526**	**614**
Income tax expense	(152)	(168)	(196)
Minorities	(4)	(4)	(4)
Underlying NPAT	**319**	**354**	**414**
Significant items	0	0	0
Reported NPAT	319	354	414
Adjusted EPS (diluted)	**80.8**	**87.3**	**102.0**
DPS	**41.2**	**52.8**	**61.5**

Source: CLSA

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Softening volume in FY21 driven by thermal coal weakness

ASPs are flat

Margins are improving with Burrup

North American volumes are supported by positive gold outlook and continued Q&C growth but partially offset by weakening coal

The Exsa acquisition is the driver of Latin America growth, overshadowing significant 2H20 weakness due to Covid-19

We expect weakness in 2H20 from Covid-19 impact on Q&C with a modest recovery, given gold outlook

Margins are stable due to purchased AN

Orica segment forecast details

	FY19	FY20CL	FY21CL	FY22CL
APAC - A$m				
Volume	1,682	1,749	1,714	1,765
Change %	*3*	*4*	*(2)*	*3*
ASP (A$/t)	1,252	1,278	1,303	1,303
Change %	*5*	*2*	*2*	*0*
Revenue	2,106	2,235	2,234	2,301
Change %	*8*	*6*	*0*	*3*
Ebit	383	368	378	418
Change %	0	(4)	3	11
Margin %	18.2	16.5	16.9	18.2
Ebit/t (A$/t)	227	210	221	237
North America - US$m				
Volume	1,128	1,098	1,114	1,148
Change %	*1*	*(3)*	*1*	*3*
ASP (US$/t)	993	964	964	964
Change %	*1*	*(3)*	*0*	*0*
Revenue	1,119	1,058	1,074	1,106
Change %	*3*	*(5)*	*1*	*3*
Ebit	135	117	130	137
Change %	(4)	(14)	12	5
Margin %	12.1	11.0	12.1	12.4
Ebit/t	120	106	117	119
Latin America - US$m - including Exsa				
Volume	718	721	992	1,044
Change %	*16*	*1*	*38*	*5*
ASP (US$/t)	951	913	867	865
Change %	*(14)*	*(4)*	*(5)*	*0*
Revenue	683	658	861	903
Change %	*0*	*(4)*	*31*	*5*
Ebit	31	22	41	51
Change %	(6)	(28)	83	26
Margin %	4.5	3.4	4.7	5.7
Ebit/t (US$/t)	43	31	41	49
EMEA - €m				
Volume	444	429	420	430
Change %	*(4)*	*(3)*	*(2)*	*2*
ASP (€/t)	1,281	1,154	1,166	1,177
Change %	*15*	*(10)*	*1*	*1*
Revenue	569	495	489	506
Change %	*10*	*(13)*	*(1)*	*3*
Ebit	42	31	30	33
Change %	21	(28)	(3)	12
Margin %	7.5	6.2	6.1	6.6
Ebit/t (€/t)	95	71	71	78

Source: CLSA, Orica

In the following figure we show our 2H20 Ebit forecasts. As seen in the bridge, the main driver of Ebit growth comes from APAC, particularly given continued volume growth in Australia and Burrup efficiencies (A$25-30m per year from reduced freight on Indonesian imports, Yarwun east-to-west tonnes and no CSBP purchases).

FY20 earnings forecasts

Ebit (A$m)	**1H20A**	**2H20CL**	**FY20CL**
APAC	170	198	368
North America	95	78	173
Latin America	22	11	33
EMEA	32	18	50
Minova	11	10	21
Monitor	9	11	20
Corporate & other	(31)	(30)	(60)
Total	**309**	**298**	**606**

Source: CLSA

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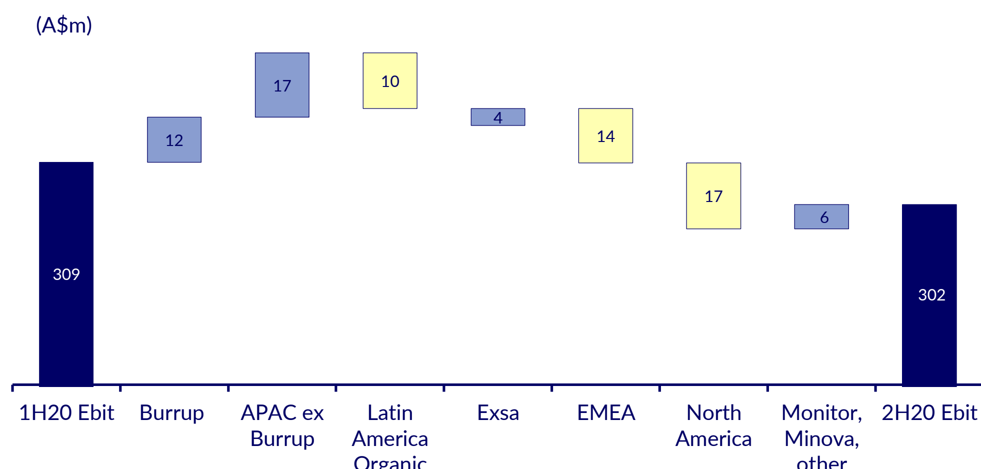
Australia is the driver of 2H earnings

Orica 2H20 earnings bridge



Source: CLSA

Valuation

We initiate coverage on Orica with an Underperform rating and a A$17.10 target price. Our target price is derived from our equal-weight DCF/SOTP valuation.

SOTP valuation

Our 13x Ebit multiple is a premium to Orica's long-run historical average

Our SOTP valuation of A$16.31 applies a 13x Ebit multiple on our FY21 Ebit forecasts. We value APAC at 14x FY21 Ebit, which is a slight discount to the market at c.15x for industrials. We value the APAC division at the highest multiple (and in line with Dyno APAC), given market structure, market share and production mix; although we believe a discount to the market is appropriate, given structural headwinds for returns in Australia. We value North America, Latin America and EMEA at lower multiples to reflect the less attractive market structures for Latin America and EMEA and lower margins (higher AN purchases). Our 13x Ebit multiple is a premium to Orica's long-run historical average of about 11x Ebit; we believe this is warranted, given the changing business and commodity mix.

Orica SOTP valuation

	FY21 Ebit	Ebit multiple (x)	A$	A$/sh
APAC	378	14.0	5,290	13.0
North America	186	12.0	2,235	5.5
Latin America	58	11.0	638	1.6
EMEA	49	11.0	543	1.3
Minova	21	10.0	209	0.5
Monitor	24	15.0	354	0.9
Corporate & other	(62)	12.0	(749)	(1.8)
Total	**654**	**12.5**	**8,520**	**21.0**
Less net debt & leases			1,903	(4.7)
Equity value			**6,617**	**16.31**
Shares outstanding			406	
Equity value per share			**16.31**	

Source: CLSA.

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DCF valuation

Our DCF valuation of A$17.96 uses a WACC of 8.1% (3.5% risk-free rate, 1.09 beta) and a 2.5% terminal growth rate. Consistent with the CLSA valuation framework, our DCF represents one-year forward valuation.

Orica DCF

Year-end September (A$m)	2021	2022	2023	2024	2025	Terminal
Post-tax Ebit	444	494	515	538	555	
Add-back D&A	360	369	372	380	389	
Less change in working capital	(34)	(5)	(1)	(13)	(13)	
Less capex	(343)	(354)	(347)	(354)	(361)	
FCF	**427**	**503**	**539**	**550**	**570**	**10,523**
Discounted free cashflow	**395**	**431**	**427**	**404**	**387**	**7,143**
Enterprise value (A$m)	**9,188**					
Net debt	1,621					
Operating Leases	282					
Equity value	**7,285**					
Shares outstanding (m)	406					
Implied price (A$)	**17.96**					

Source: CLSA.

Sensitivity analysis

DCF sensitivity

		Terminal growth				
		1.5%	**2.0%**	**2.5%**	**3.0%**	**3.5%**
	7.0%	18.8	20.7	23.0	25.9	29.6
	7.5%	16.8	18.4	20.2	22.5	25.3
WACC	**8.0%**	15.1	16.4	18.0	19.8	22.0
	8.5%	13.7	14.8	16.1	17.6	19.4
	9.0%	12.5	13.4	14.5	15.7	17.2

Source: CLSA

DCF input assumptions

WACC (%)	**8.1**
COE (post tax) (%)	9.5
COD (pretax) (%)	5.5
Gearing (below target range; in line with our long-term forecasts) (%)	25.0
Effective tax rate (%)	32.0
CAPM	
Beta (Bloomberg long-term historical adjusted)	1.09
Risk-free rate (10-year) (%)	3.5
Equity risk premium (%)	5.5
CAPM discount rate (%)	9.5
Terminal growth rate (%)	**2.5**

Source: Bloomberg, CLSA

Our price target represents a 12% premium to the ASX 200 CY21 PE of 17.5x

Implied valuation

Our target price of A$17.10 implies an FY21 PE of 19.0x, which represents a 12% premium to the ASX 200 CY21 PE of 17.5x. Through the cycle, Orica has traded in line with the market. Given current conditions, particularly for coal, we find it hard to justify significantly above a market multiple for Orica, particularly given the expected low-single-digit organic earnings growth in the next three years.

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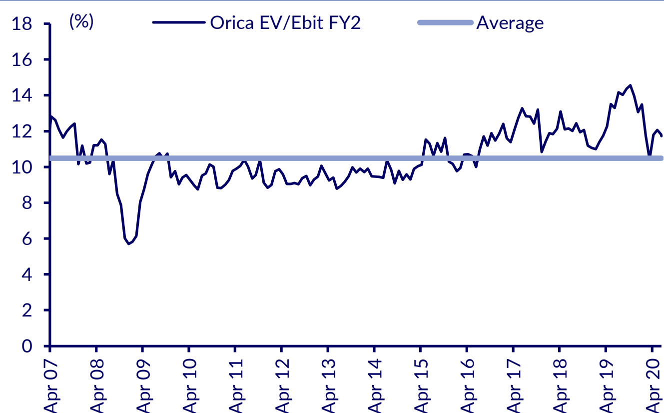
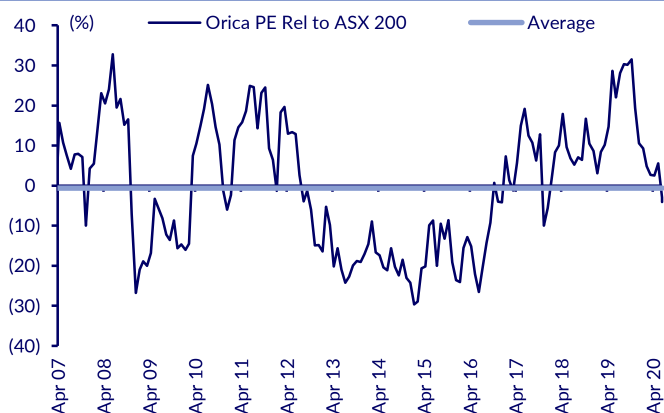
Orica EV/Ebit FY2



Source: FactSet

Orica PE relative to ASX 200 FY2



Source: FactSet, CLSA

Valuation details

We value Orica using a blend of DCF and SOTP valuations. Our DCF valuation uses a WACC of 8.1% (3.5% risk-free rate, 5.5% equity risk premium, 1.09 beta and a 2.5% risk-free rate). Our SOTP valuation implies a 13x FY21 EV/Ebit multiple consisting of 14x for APAC, 12x for North America, 11x for EMEA and Latin America, 10x for Minova, 15x for Monitor and 12x for corporate.

Investment risks

Risks to our view include: lower-than-expected explosives volume across global commodity markets; further weakness in the key US, Australian and Indonesian coal markets - particularly in coal - potentially leading to excess capacity within those regions; execution risk associated with the ramp up of the Burrup production facility; and greater-than-expected price pressure as a result of miners' increased focus on costs. The key risks in the near-term are COVID-19 disruptions on mining activity and risks to coal production in FY21.

EQRS/BQRS

Earnings and balance-sheet risk scores (lower = better)

	Score	Comments
Earnings-quality flags		
Capex indiscipline	1	Elevated capex recently from SAP, Burrup.
Cash burn	0	
Rising non-core or intangibles	0	
Rising working capital	0	
Poor cash conversion	0	
Earnings-quality risk score	**1/5**	
Balance-sheet-quality flags		
Cash burn	0	
Excessive leverage	0	
Frequent fundraising	0	
Liquidity concerns	0	
Operational stress	0	
Balance-sheet-quality risk score	**0/5**	

Source: CLSA

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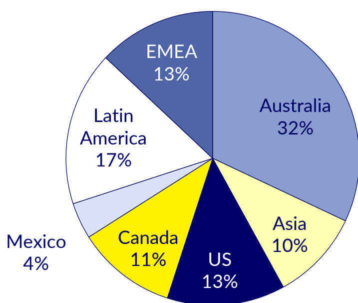
Appendix: Orica overview

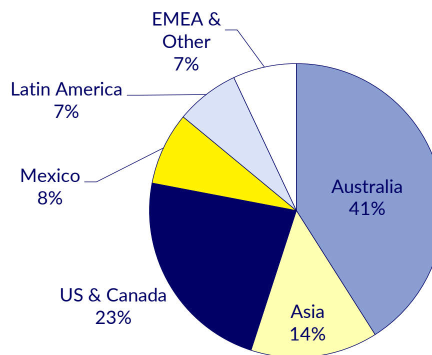
Orica is the world's largest producer of mining explosives and blasting systems for the mining, quarrying and construction industries. As seen below, Australia is the driver of group earnings, generating c.41% of the group's Ebit.

Orica volume by region - 1H20



Source: CLSA, Orica

Orica Ebit by region - 1H20



Source: CLSA, Orica. Other includes Orica Minova, Monitor and Corporate.

Orica has a number of operating facilities across the globe. These include AN production plants (Burrup, Yarwun, Kooragang Island and Carseland) and initiating system plants. Given high transport and storage costs, having production close to customer operations is a key advantage.

Orica facilities

Source: Orica

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Orica production facilities

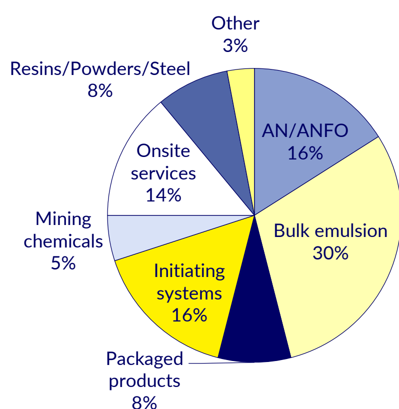
Orica AN production	AN capacity (kt)	Production type	Primary customers
Burrup, WA	330	Back to Ammonia	Pilbara Iron ore
Yarwun, QLD	530	Back to Ammonia	QLD Met Coal
Kooragang Island, NSW	430	Back to Gas	NSW Thermal Coal
Bontang, Indonesia	365	Back to Ammonia	Indonesian Thermal Coal
Carseland, Canada	500	Back to Ammonia	US/Canada Precious Metals

Source: Orica

Products and customers

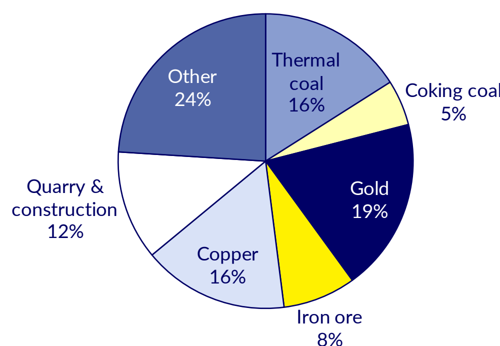
Bulk ammonium nitrate and emulsion accounts for c.46% of Orica revenue. Coal represents the largest exposure for Orica at 21% of revenue.

Revenue by product - 1H20



Source: Orica

Revenue by commodity - 1H20



Source: Orica

Demand drivers include increasing commodity production, strip ratios, production complexity (more underground production) and technology use for efficiency and safety.

A sale typically involves explosives (AN or emulsion) and initiating systems. The revenue mix, however, is heavily dependent on the mine type and customer. A complex underground mine (gold, copper, zinc) will typically require higher margin emulsion and blasting systems whereas open pit mines usually need more bulk explosives (iron ore, coal). A contract will usually involve the customer committing to use a certain proportion of Orica's tonnes for its AN needs, rather than take or pay commitments.

The customer type is important as well. Major miners are more likely to have internal teams administering explosives whereas less sophisticated miners may use Orica from explosive mine planning up to administering.

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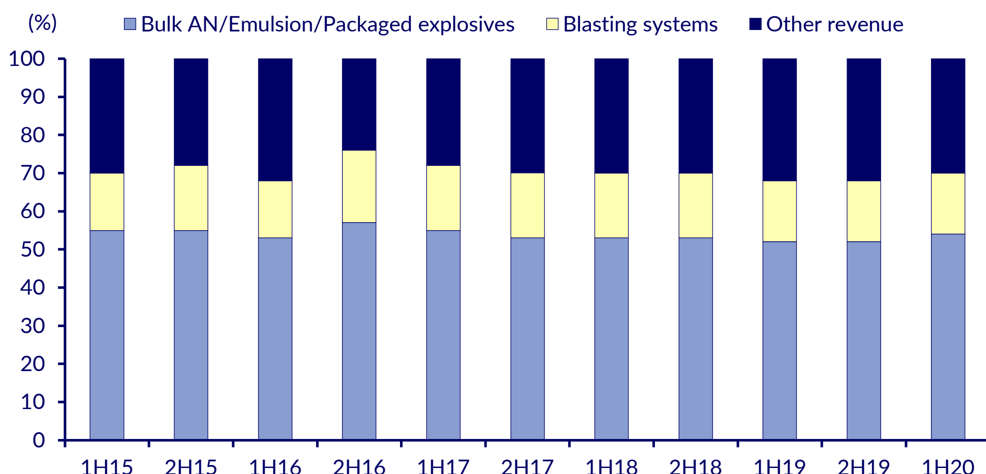
Orica's revenue mix has been relatively stable

Revenue mix by product stable over time



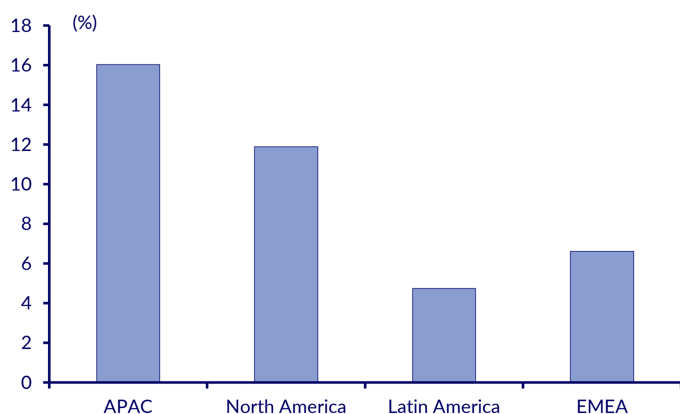
Source: Orica

Orica's revenue product mix is more likely to be influenced by customer type and growth regions. However, increasing the use of technology systems will help improve margins and raise relative customer switching costs.

Regional margins, product mixes and customers

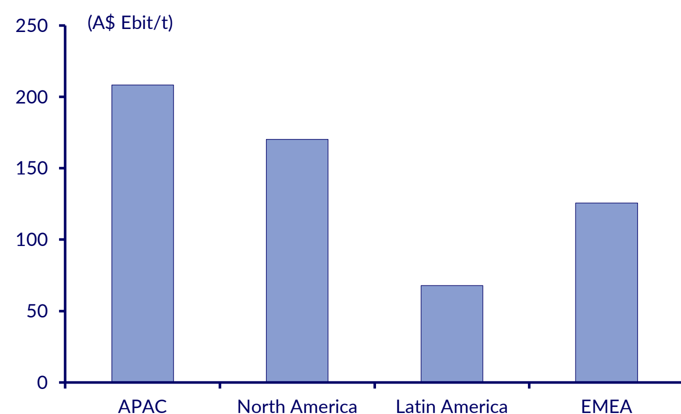
Regional product mixes and margins vary given significantly different market structures, market share, customers and commodities. The analysis below focuses on Orica's mining service segments, which account for more than 90% of Ebit.

Orica Ebit margin 1H20 - Mining services



Source: Orica

Orica Ebit/t 1H20 - Mining services



Source: Orica

As seen below, the commodity mix varies significantly by region. APAC is heavily skewed to bulk commodities (coal and iron ore), North America and Latin America to precious metals and EMEA to quarry and construction. Orica's APAC coal exposure is primarily from New South Wales thermal coal serviced out of Kooragang Island in Newcastle.

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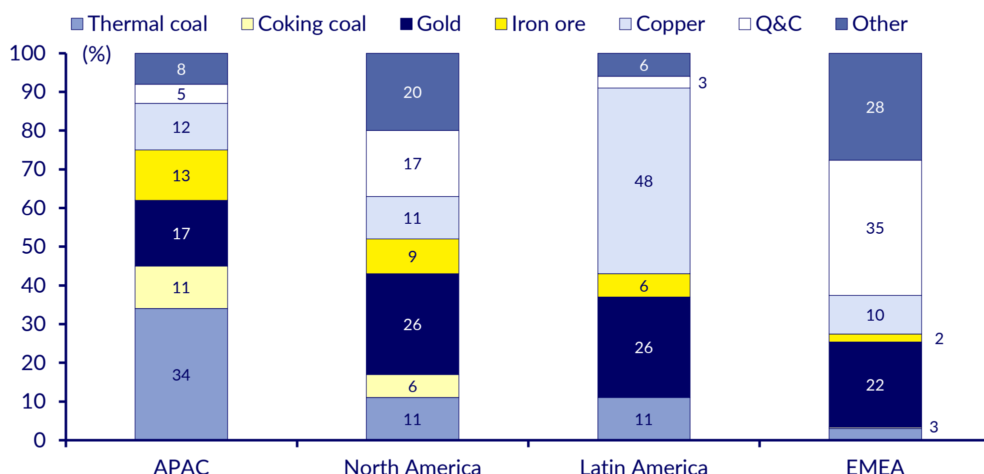
Thermal coal the key commodity in APAC

Commodity mix by region

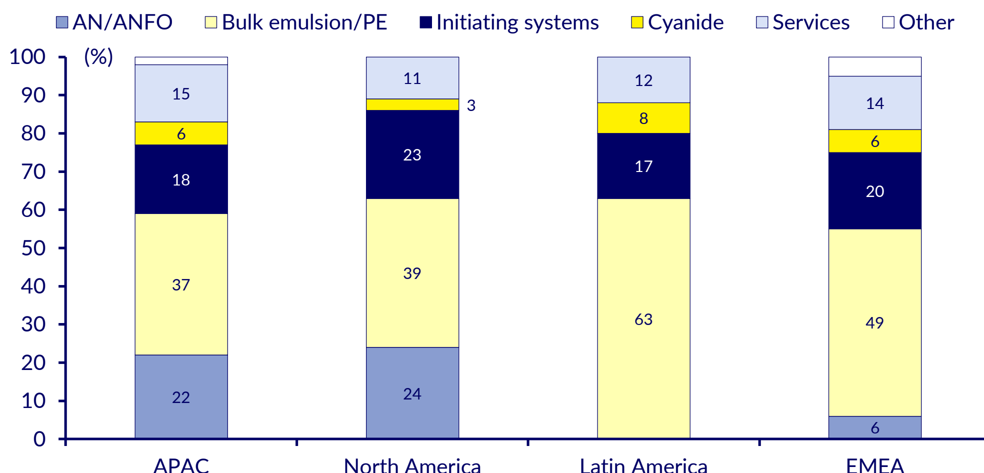


Source: Orica

The revenue mix by product differs on a regional basis. APAC has a higher skew to bulk AN (given the coal and iron ore open cut skew) whereas Latin America has a higher emulsion / packaged explosive mix given the weighting towards precious metals.

Product mix varies by region

Product mix by region



Source: CLSA, Orica. Latin America AN/Bulk/PE classified as Emulsion/PE

The APAC skew to open pit bulk commodities should imply lower margin / bulk explosive product but it is the highest margin region. The margin is driven by the high proportion of supply serviced from Orica's manufacturing facilities and the favourable market structure.

APAC margins higher due to manufacturing skew and market structure

APAC's margins are higher because nearly all product in APAC is manufactured by Orica, particularly when Burrup is running near capacity. North America produces c.500kt at Carseland and Orica have an 800kstpa AN supply contract with CF Industries. The other regions purchase AN (and produce initiating systems). This is why the margin differential is high, limiting operating leverage versus Incitec Pivot but also volatility.

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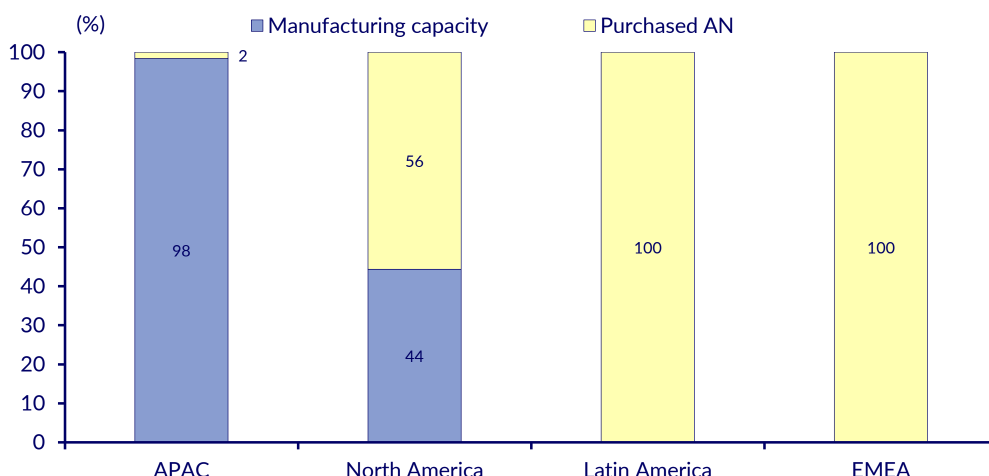
Mix of manufacturing and purchased AN offers good flexibility

Manufacturing mix

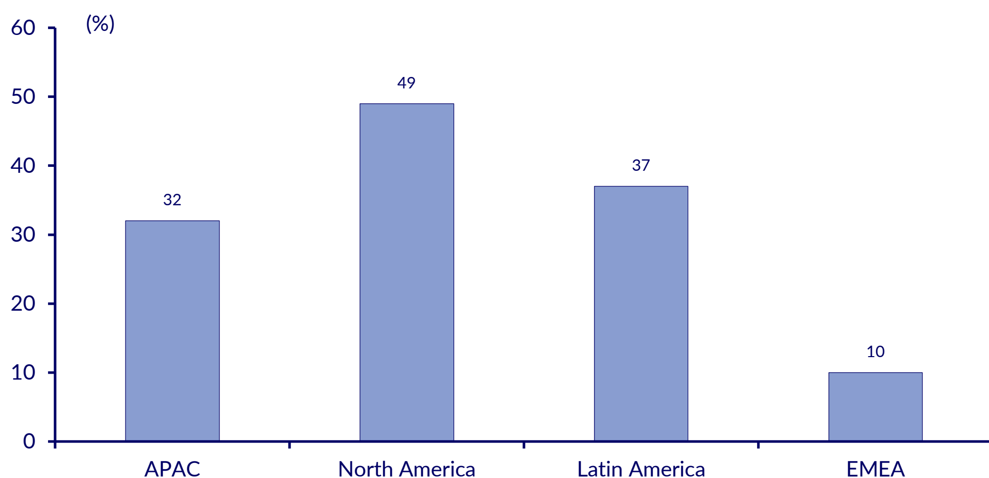


Note: APAC purchases have been higher to Burrup issues. Source: CLSA, Orica. Manufacturing Capacity / FY19 volumes

Market share and structure also play a large factor in margins. Orica's 32% APAC market share consists of 45% for Australia Pacific and 17% for Asia. Australia's rational three-player market with high barriers to entry is a fundamental driver of margins in Australia. This compares to Latin America, where the company enjoys 37% share but with significant competition, particularly from companies from which it purchases AN.

Strong global market share is a key competitive advantage

Market share by region



Source: CLSA, Orica

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Detailed financials

Profit & Loss (A$m)

Year to 30 September	2016A	2017A	2018A	2019A	2020CL	2021CL	2022CL
Revenue	**5,092**	**5,039**	**5,374**	**5,878**	**5,771**	**6,041**	**6,214**
Cogs (ex-D&A)	(4,184)	(4,143)	(4,489)	(4,937)	(4,816)	(5,027)	(5,119)
Gross Profit (ex-D&A)	**908**	**896**	**885**	**941**	**955**	**1,014**	**1,095**
Research & development costs	-	-	-	-	-	-	-
Selling & marketing expenses	-	-	-	-	-	-	-
Other SG&A	-	-	-	-	-	-	-
Other Op Expenses ex-D&A	-	-	-	-	-	-	-
Op Ebitda	**908**	**896**	**885**	**941**	**955**	**1,014**	**1,095**
Depreciation/amortisation	(266)	(261)	(267)	(276)	(349)	(360)	(369)
Op Ebit	**642**	**635**	**618**	**665**	**606**	**654**	**726**
Interest income	30	56	56	50	46	42	38
Interest expense	(114)	(128)	(177)	(159)	(177)	(170)	(150)
Net interest inc/(exp)	(84)	(72)	(121)	(110)	(131)	(127)	(112)
Associates/investments	-	-	-	-	-	-	-
Forex/other income	-	-	-	-	-	-	-
Asset sales/other cash items	-	-	-	-	-	-	-
Provisions/other non-cash items	-	-	-	-	-	-	-
Asset revaluation/Exceptional items	-	-	-	-	-	-	-
Profit before tax	**558**	**563**	**497**	**555**	**475**	**526**	**614**
Taxation	(157)	(164)	(158)	(178)	(152)	(168)	(196)
Profit after tax	**401**	**399**	**339**	**377**	**323**	**358**	**418**
Preference dividends	-	-	-	-	-	-	-
Profit for period	**401**	**399**	**339**	**377**	**323**	**358**	**418**
Minority interest	(12)	(13)	(15)	(5)	(4)	(4)	(4)
Net profit	**389**	**386**	**324**	**372**	**319**	**354**	**414**
Extraordinaries/others	(46)	0	(372)	(127)	0	0	0
Profit avail to ordinary shares	343	386	(48)	245	319	354	414
Dividends	(184)	(194)	(195)	(209)	(164)	(214)	(250)
Retained profit	159	192	(243)	36	155	140	164
Adjusted profit	**389**	**386**	**324**	**372**	**319**	**354**	**414**
EPS (A¢)	104.4	102.0	85.1	97.5	78.7	87.3	102.0
Adj EPS [pre excep] (A¢)	104.4	102.0	85.1	97.5	78.7	87.3	102.0
Core EPS (A¢)	104.4	102.0	85.1	97.5	78.7	87.3	102.0
DPS (A¢)	49.5	51.5	51.5	55.0	41.2	52.8	61.5

Profit & loss ratios

Year to 30 September	2016A	2017A	2018A	2019A	2020CL	2021CL	2022CL
Growth (%)							
Revenue growth (% YoY)	(9.9)	(1.0)	6.6	9.4	(1.8)	4.7	2.9
Ebitda growth (% YoY)	(8.7)	(1.3)	(1.3)	6.3	1.5	6.2	8.0
Ebit growth (% YoY)	(6.2)	(1.1)	(2.7)	7.5	(8.8)	7.8	11.0
Net profit growth (%)	(6.7)	(0.7)	(16.1)	14.7	(14.2)	10.9	16.9
EPS growth (% YoY)	(7.4)	(2.3)	(16.5)	14.5	(19.3)	10.9	16.9
Adj EPS growth (% YoY)	(7.4)	(2.3)	(16.5)	14.5	(19.3)	10.9	16.9
DPS growth (% YoY)	(48.4)	4.0	0.0	6.8	(25.2)	28.4	16.5
Core EPS growth (% YoY)	(7.4)	(2.3)	(16.5)	14.5	(19.3)	10.9	16.9
Margins (%)							
Ebitda margin (%)	17.8	17.8	16.5	16.0	16.5	16.8	17.6
Ebit margin (%)	12.6	12.6	11.5	11.3	10.5	10.8	11.7
Net profit margin (%)	7.6	7.7	6.0	6.3	5.5	5.9	6.7
Core profit margin	7.6	7.7	6.0	6.3	5.5	5.9	6.7
Op cashflow margin	15.3	9.3	11.4	12.7	11.5	11.8	13.0
Returns (%)							
ROE (%)	13.5	13.4	11.1	12.7	9.5	9.3	10.4
ROA (%)	6.6	6.7	6.0	6.3	5.1	5.1	5.7
ROIC (%)	9.0	9.4	8.6	9.0	7.5	7.4	8.2
ROCE (%)	13.7	14.5	13.7	14.3	12.0	12.0	13.4
Other key ratios (%)							
Effective tax rate (%)	28.1	29.1	31.8	32.0	32.0	32.0	32.0
Ebitda/net int exp (x)	10.8	12.5	7.3	8.6	7.3	8.0	9.8
Exceptional or extraord. inc/PBT (%)	-	-	-	-	-	-	-
Dividend payout (%)	47.4	50.5	60.5	56.4	52.3	60.6	60.3

Source: www.clsa.com

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Balance sheet (A$m)

Year to 30 September	2016A	2017A	2018A	2019A	2020CL	2021CL	2022CL
Cash & equivalents	328	517	511	413	1,033	588	794
Accounts receivable	688	666	655	682	646	705	714
Inventories	518	538	627	588	549	599	607
Other current assets	44	64	168	154	374	374	374
Current assets	**1,578**	**1,785**	**1,960**	**1,836**	**2,602**	**2,266**	**2,489**
Fixed assets	2,725	2,742	2,866	2,900	3,651	3,634	3,619
Investments	188	185	213	301	312	283	255
Goodwill	1,031	1,093	1,050	1,189	1,189	1,189	1,189
Other intangible assets	528	484	648	500	604	604	604
Other non-current assets	546	497	427	568	525	525	525
Total assets	**6,596**	**6,785**	**7,164**	**7,294**	**8,884**	**8,501**	**8,681**
Short term loans/OD	322	24	158	61	559	559	559
Accounts payable	779	796	862	863	818	893	904
Accrued expenses	166	188	193	193	181	181	181
Taxes payable	0	0	0	0	0	0	0
Other current liabs	324	290	398	517	525	525	525
Current liabilities	**1,591**	**1,297**	**1,611**	**1,635**	**2,083**	**2,158**	**2,169**
Long-term debt/leases/other	1,556	1,934	2,005	1,972	2,127	1,527	1,527
Convertible bonds	-	-	-	-	-	-	-
Provisions/other LT liabs	666	591	580	662	877	877	877
Total liabilities	**3,813**	**3,822**	**4,196**	**4,269**	**5,087**	**4,561**	**4,573**
Share capital	2,025	2,069	2,110	2,138	2,656	2,656	2,656
Retained earnings	1,247	1,460	1,232	1,194	1,260	1,400	1,564
Reserves/others	(490)	(566)	(439)	(364)	(178)	(178)	(178)
Shareholder funds	**2,783**	**2,962**	**2,903**	**2,968**	**3,739**	**3,878**	**4,043**
Minorities/other equity	1	1	65	57	58	62	65
Total equity	**2,783**	**2,964**	**2,968**	**3,025**	**3,797**	**3,940**	**4,108**
Total liabs & equity	**6,596**	**6,785**	**7,164**	**7,294**	**8,884**	**8,501**	**8,681**
Total debt	1,877	1,958	2,163	2,033	2,686	2,086	2,086
Net debt	1,549	1,441	1,652	1,621	1,653	1,498	1,292
Adjusted EV	7,563	7,494	7,775	7,671	8,108	7,985	7,812
BVPS (A¢)	742.1	785.7	765.6	779.9	921.7	956.2	996.6

Balance sheet ratios

Year to 30 September	2016A	2017A	2018A	2019A	2020CL	2021CL	2022CL
Key ratios							
Current ratio (x)	1.0	1.4	1.2	1.1	1.2	1.1	1.1
Growth in total assets (% YoY)	(9.9)	2.9	5.6	1.8	21.8	(4.3)	2.1
Growth in capital employed (% YoY)	(13.6)	1.7	4.9	0.6	17.3	(0.2)	(0.7)
Net debt to operating cashflow (x)	2.0	3.1	2.7	2.2	2.5	2.1	1.6
Gross debt to operating cashflow (x)	2.4	4.2	3.5	2.7	4.1	2.9	2.6
Gross debt to Ebitda (x)	2.1	2.2	2.4	2.2	2.8	2.1	1.9
Net debt/Ebitda (x)	1.7	1.6	1.9	1.7	1.7	1.5	1.2
Gearing							
Net debt/equity (%)	55.7	48.6	55.6	53.6	43.5	38.0	31.4
Gross debt/equity (%)	67.5	66.1	72.9	67.2	70.7	52.9	50.8
Interest cover (x)	5.9	5.4	3.8	4.5	3.7	4.1	5.1
Debt Cover (x)	0.4	0.2	0.3	0.4	0.2	0.3	0.4
Working capital analysis							
Inventory days	48.7	46.5	47.4	44.9	43.1	41.7	43.0
Debtor days	58.3	49.0	44.8	41.5	42.0	40.8	41.7
Creditor days	70.7	69.3	67.4	63.8	63.7	62.1	64.1
Working capital/Sales (%)	(0.4)	(0.1)	(0.1)	(2.6)	0.8	1.3	1.4
Capital employed analysis							
Sales/Capital employed (%)	117.5	114.4	116.3	126.5	105.9	111.1	115.1
EV/Capital employed (%)	174.6	170.1	168.3	165.1	148.8	146.8	144.7
Working capital/Capital employed (%)	(0.4)	(0.1)	(0.1)	(3.2)	0.8	1.4	1.6
Fixed capital/Capital employed (%)	62.9	62.2	62.0	62.4	67.0	66.8	67.0
Other ratios (%)							
EV/OCF (x)	9.7	16.1	12.6	10.3	12.2	11.2	9.6
EV/FCF (x)	14.7	46.7	26.6	23.8	40.5	21.6	17.1
EV/Sales (x)	1.5	1.5	1.4	1.3	1.4	1.3	1.3
Capex/depreciation (%)	98.9	117.1	120.7	153.4	132.5	95.3	95.9

Source: www.clsa.com

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Cashflow (A$m)

Year to 30 September	2016A	2017A	2018A	2019A	2020CL	2021CL	2022CL
Operating profit	642	635	618	665	606	654	726
Operating adjustments	(179)	(194)	(101)	(15)	(77)	0	0
Depreciation/amortisation	266	261	267	276	349	360	369
Working capital changes	267	18	(10)	13	29	(34)	(5)
Interest paid / other financial expenses	(79)	(65)	(90)	(85)	(97)	(99)	(83)
Tax paid	(139)	(189)	(69)	(108)	(147)	(168)	(196)
Other non-cash operating items	-	-	-	-	-	-	-
Net operating cashflow	778	466	615	746	662	712	810
Capital expenditure	(263)	(306)	(322)	(424)	(462)	(343)	(354)
Free cashflow	515	161	293	322	200	369	456
Acq/inv/disposals	75	44	(243)	38	(293)	-	-
Int, invt & associate div	-	-	-	-	-	-	-
Net investing cashflow	(188)	(262)	(566)	(386)	(755)	(343)	(354)
Increase in loans	(275)	164	77	(301)	445	(600)	0
Dividends	(213)	(158)	(143)	(177)	(217)	(214)	(250)
Net equity raised/others	(1)	(1)	(1)	0	476	0	0
Net financing cashflow	(489)	5	(67)	(479)	704	(814)	(250)
Incr/(decr) in net cash	101	209	(18)	(119)	611	(445)	206
Exch rate movements	(47)	(20)	13	20	9	0	0
Opening cash	274	328	517	511	413	1,033	588
Closing cash	328	517	511	413	1,033	588	794
OCF PS (A¢)	208.7	123.2	161.4	195.6	163.3	175.6	199.8
FCF PS (A¢)	138.2	42.4	76.8	84.5	49.4	91.0	112.4

Cashflow ratio analysis

Year to 30 September	2016A	2017A	2018A	2019A	2020CL	2021CL	2022CL
Growth (%)							
Op cashflow growth (% YoY)	5.2	(40.0)	31.8	21.4	(11.2)	7.5	13.8
FCF growth (% YoY)	80.0	(68.8)	82.3	10.2	(37.9)	84.4	23.5
Capex growth (%)	(42.0)	16.4	5.3	31.6	9.0	(25.8)	3.3
Other key ratios (%)							
Capex/sales (%)	5.2	6.1	6.0	7.2	8.0	5.7	5.7
Capex/op cashflow (%)	33.8	65.6	52.4	56.8	69.8	48.2	43.7
Operating cashflow payout ratio (%)	23.7	41.8	31.9	28.1	25.2	30.1	30.8
Cashflow payout ratio (%)	23.7	41.6	31.7	28.0	24.7	30.1	30.8
Free cashflow payout ratio (%)	35.7	120.8	66.7	64.8	81.8	58.1	54.8

DuPont analysis

Year to 30 September	2016A	2017A	2018A	2019A	2020CL	2021CL	2022CL
Ebit margin (%)	12.6	12.6	11.5	11.3	10.5	10.8	11.7
Asset turnover (x)	0.7	0.8	0.8	0.8	0.7	0.7	0.7
Interest burden (x)	0.9	0.9	0.8	0.8	0.8	0.8	0.8
Tax burden (x)	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Return on assets (%)	6.6	6.7	6.0	6.3	5.1	5.1	5.7
Leverage (x)	2.4	2.3	2.4	2.4	2.4	2.2	2.1
ROE (%)	13.9	13.9	11.4	12.6	9.5	9.2	10.4

EVA® analysis

Year to 30 September	2016A	2017A	2018A	2019A	2020CL	2021CL	2022CL
Ebit adj for tax	462	450	422	452	412	444	494
Average invested capital	5,141	4,811	4,899	4,997	5,510	6,023	6,026
ROIC (%)	9.0	9.4	8.6	9.0	7.5	7.4	8.2
Cost of equity (%)	9.5	9.5	9.5	9.5	9.5	9.5	9.5
Cost of debt (adj for tax)	4.0	3.9	3.8	3.7	3.7	3.7	3.7
Weighted average cost of capital (%)	8.4	8.4	8.3	8.3	8.3	8.3	8.3
EVA/IC (%)	0.6	1.0	0.3	0.7	(0.9)	(1.0)	(0.2)
EVA (A$m)	31	47	13	35	(48)	(58)	(9)

Source: www.clsa.com

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Appendix 1: Ammonium nitrate market

Industrial explosives are a vital component when extracting raw materials in mines and quarries. Controlled blasts are an efficient way to remove large volumes of low-grade ore or overburden.

Explosives are used in a range of commodity types, leading to variations in rock type, geological environment, strip ratios and ore extraction method. These factors affect the volume of blasting agent needed by mining projects, as well as specific explosives requirements.

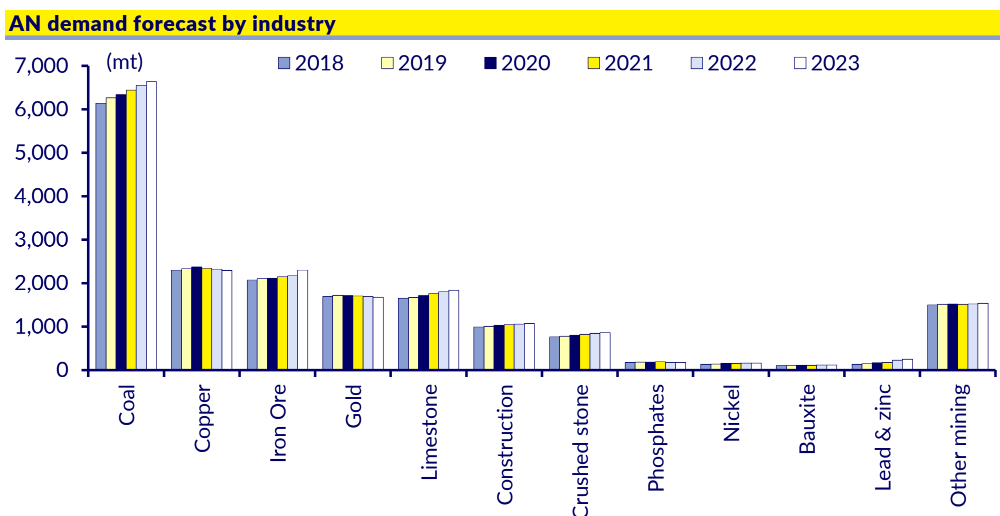
The base product of the majority of mine explosives is low density porous prilled ammonium nitrate. The sensitivity of the explosives is determined by the fuel concentration, the physical characteristics of the prills, and the type of mining environment.

Global AN demand is largely driven by fluctuations in the mining and construction industries. The use of AN as an explosive for the removal of rock means that 94% of total global consumption is within by the mining industry. The remaining 6% is construction, primarily in the clearing of space for civil engineering projects such as dams, renewable energy generators, and demolition of old buildings.

The largest individual mining contributor to AN consumption is the coal industry, responsible for c.35% of global demand. It is also the largest growing sector over the forecast, growing from 6.1 Mt in 2018 to 6.6 Mt of AN consumed by 2023, according to CRU Other commodities drivers for AN are: copper (13%), iron ore (12%), gold (10%) and limestone (9%).We note that CRU's forecasts are pre Covid.

Pre-Covid coal was expected to be the driver of global AN growth

AN demand forecast by industry



Note: CRU pre-Covid forecasts. Source: CLSA, CRU

AN demand forecasts driven by China power demand

Chinese coal operations are situated in the middle and upper percentiles of the thermal coal cost curve. This contributed to a state-directed change in 2016 towards reducing the degree of smaller, high cost operations, in favour of larger, more efficient operations. The Chinese government therefore implemented a plan to reduce coal production capacity by 800 Mt before 2021.

The NDRC (National Development and Reform Commission) recently released a Notice on 2020's target towards some key industries to resolve excessive capacity.

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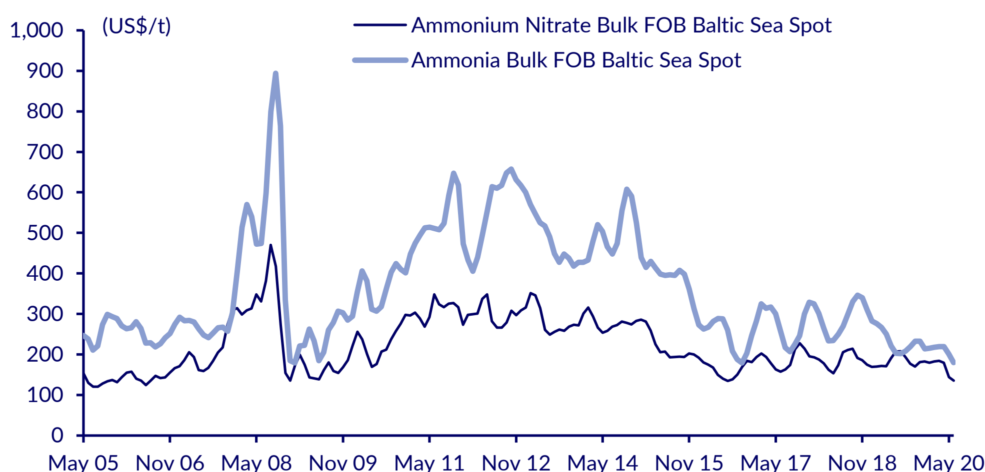
Our analysis concludes the Notice on coal industry and find there is a target to cut coal mines number to 5,000 by end 2020 and the Notice urges large coal mine production bases in the country to account for 96% of total production. We understand China had 5,459 coal mines as of end 2019 relative to 6,204 coal mines as of end 2018. In 2019, China closed around 19mtpa effective coal capacity.

Also, there is tightening measures on new capacity additions. As the Notice points out, theoretically, there will not be new capacity approval through capacity replacement program effective from the date of Notice release, except those essential ones for the sake of energy security. Besides, capacity replacement quota must be granted before construction approval/new capacity being granted relative to previous flexible time schedule between grants of capacity replacement quota, construction approval and new capacity grant.

While China's supply side reforms are deemed largely over in 2016-18, the Notice demonstrated excessive capacity closure still have some miles to go in 2020 before 14th FYP to arrive.

CLSA forecasts China's 20CL coal consumption to decline 0.9% YoY to 4,087mt and China's coal supply to 1.4% YoY to 4,086mt. However, CLSA sees thermal coal a key beneficiary of China's tightening coal imports since May. For thermal coal, CLSA forecast 20CL demand to be 3,513mt and supply to be 3,492mt (reflecting 30mt projection down to 270mt from 300mt previously), which sends slight supply deficit this year from previous supply surplus.

Ammonium nitrate and ammonia pricing



Source: CLSA, CRU

Australian AN market

The Australian AN market is a c.2.2-2.3mt market with c.2.1mt produced domestically and c.100-200kt supplied through imports. The key drivers of demand include coal and iron ore which combined represent 70% of total demand. The utilisation rate of the industry currently sits around 90%.

Pre-Covid, Australian demand for AN was forecast to increase with production of Australian coal and iron ore forecast to increase continuously between 2018 and 2023; however new risks to Coal continue to emerge with structural and cyclical risks.

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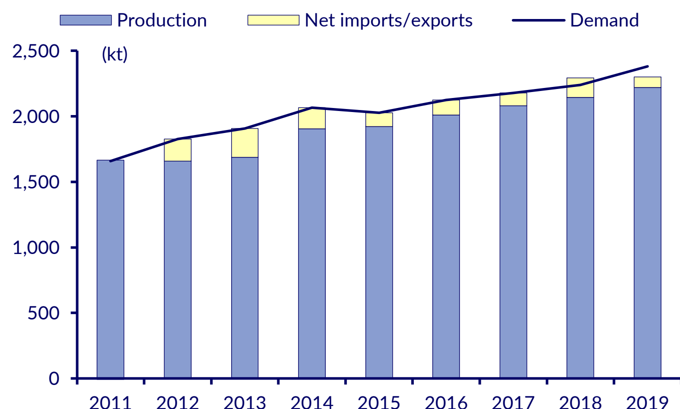
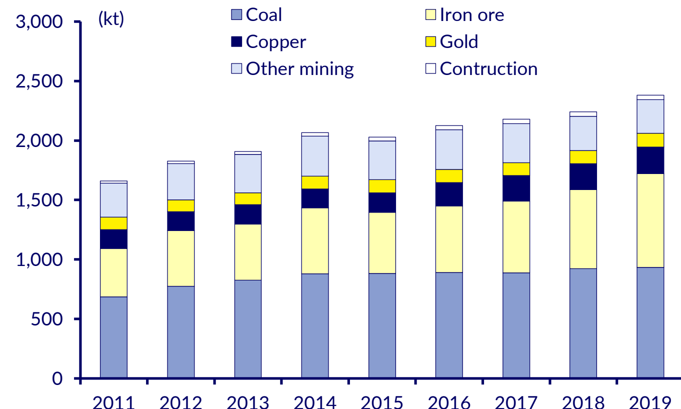
Australia accounts for >40% of the global production of iron ore, almost double that of the next largest producer, Brazil. Demand from iron ore will continue to increase with increasing strip ratios and some capacity additions.

Australian market balance



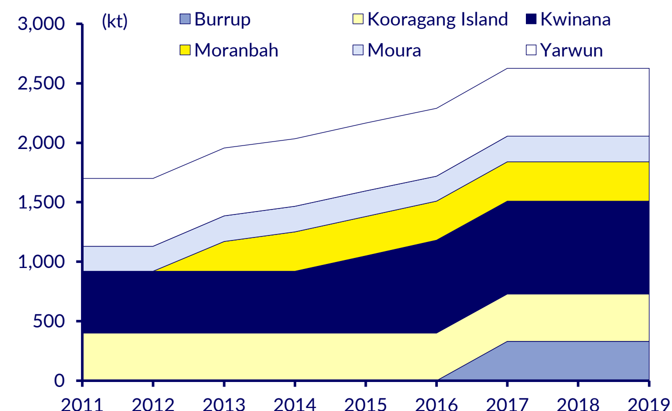
Source: CLSA, CRU

AN demand by commodity



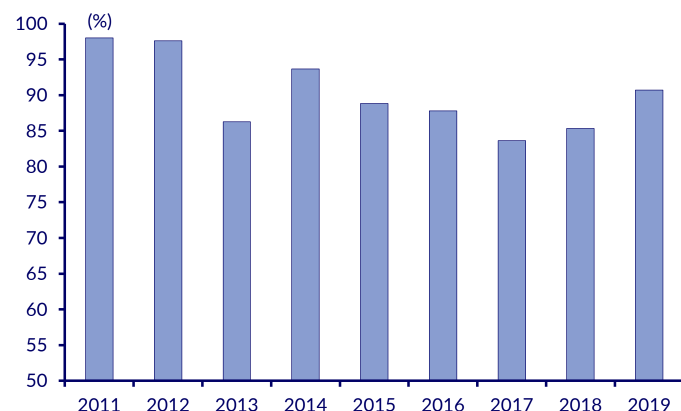
Source: CLSA, CRU

Australian capacity



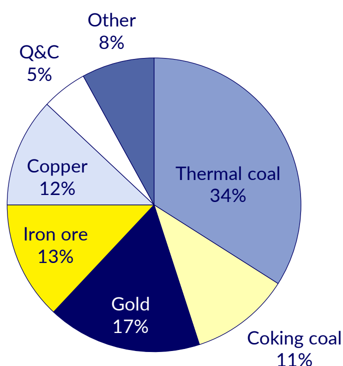
Source: CLSA, CRU

Utilisation rate



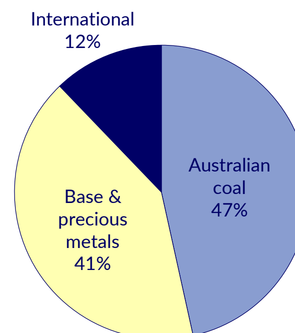
Source: CLSA, CRU

Orica APAC revenue mix 1H20



Source: CLSA, Orica

Incitec Pivot APAC revenue mix 1H20



Source: CLSA, Incitec Pivot

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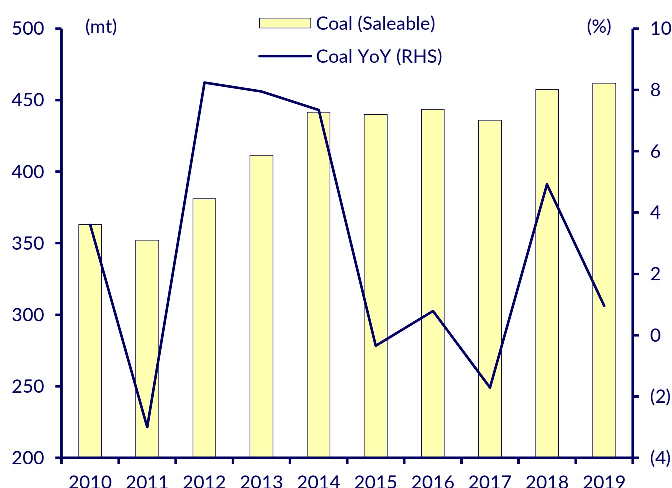
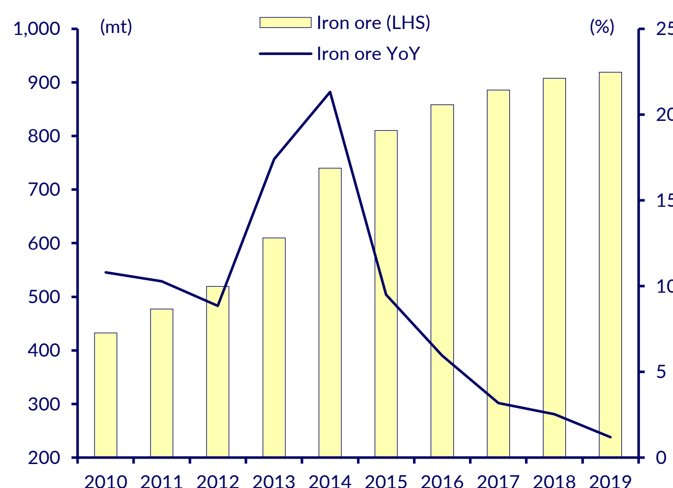
Australian coal production



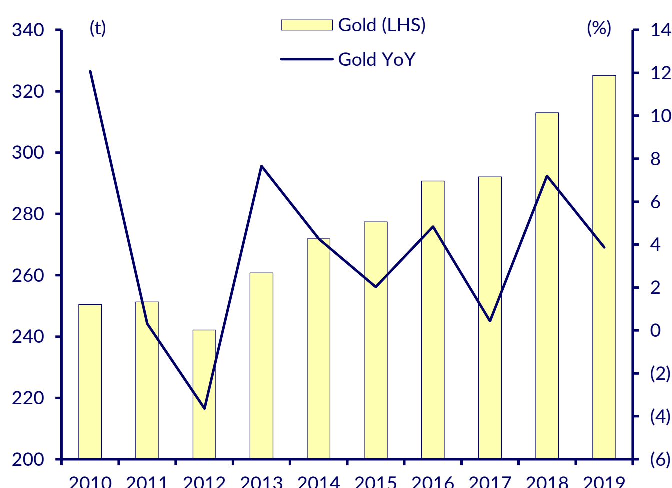
Source: CLSA, Department of Energy and Resources

Australian iron ore production



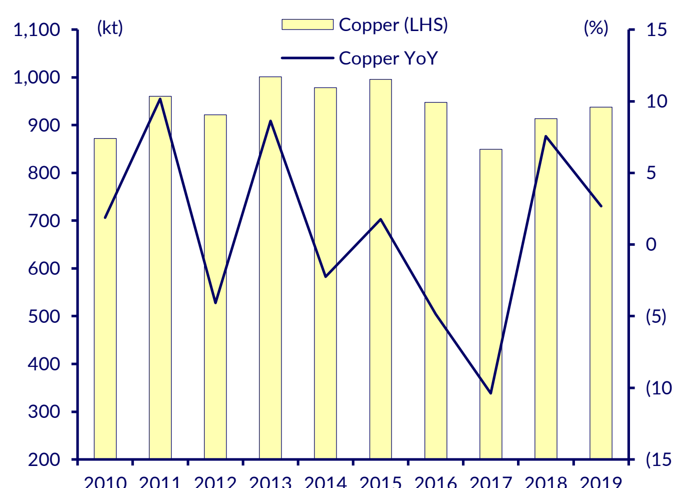
Source: CLSA, Department of Energy and Resources

Australian gold production



Source: CLSA, Department of Energy and Resources

Australian copper production



Source: CLSA, Department of Energy and Resources

North American AN market

The North American AN market is a c.3mt market with c.3mt produced domestically. The key drivers of demand include coal, copper/gold and construction. Coal represents half of total demand. The utilisation rate currently sits around 90%.

North American demand for AN is driven by the coal industry in the US, where 95% of coal produced is consumed in domestic power plants. Coal exports from the US are costly given the distance from mines to ports (high transport costs). As such, poor production economics along with environmental concerns are the main drivers of a weak outlook. Downside risks may be alleviated in the medium-term due to an expected relaxing of environmental concerns and governmental policy to push US energy products into the global market.

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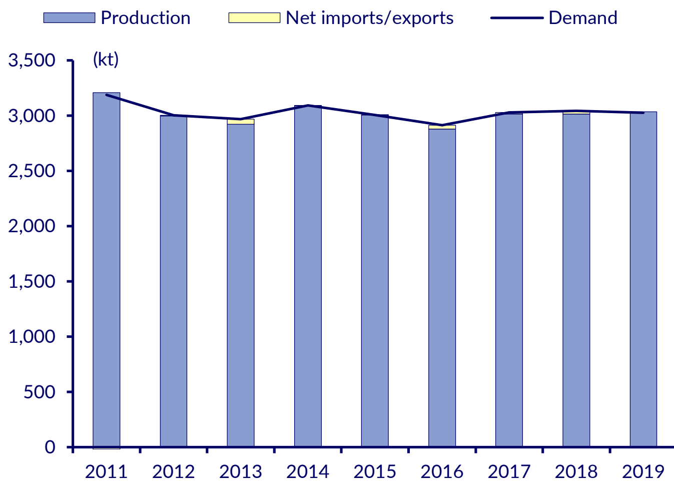
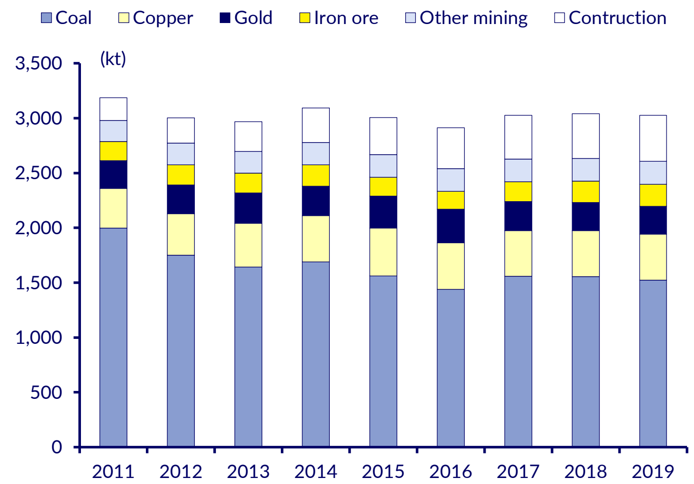
North American market balance



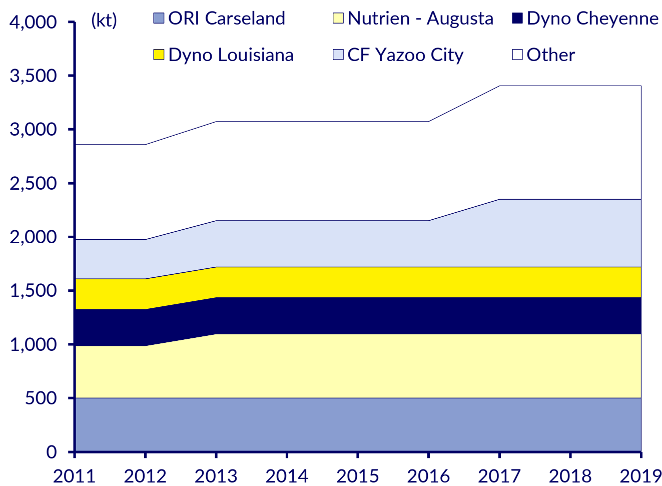
Source: CLSA, CRU

AN demand by commodity



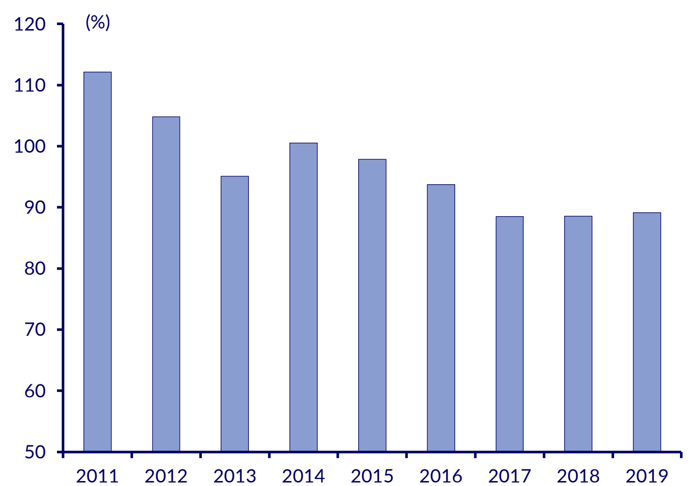
Source: CLSA, CRU

North America capacity



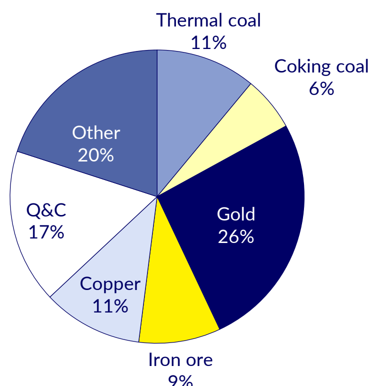
Source: CLSA, CRU

Utilisation rate



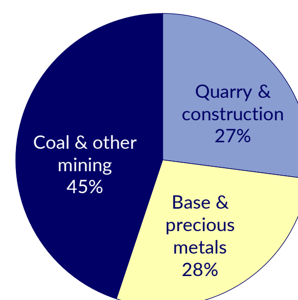
Source: CLSA, CRU

Orica North America revenue 1H20



Source: CLSA, Orica

Dyno Nobel Americas Explosive volumes 1H20



Source: CLSA, Incitec Pivot

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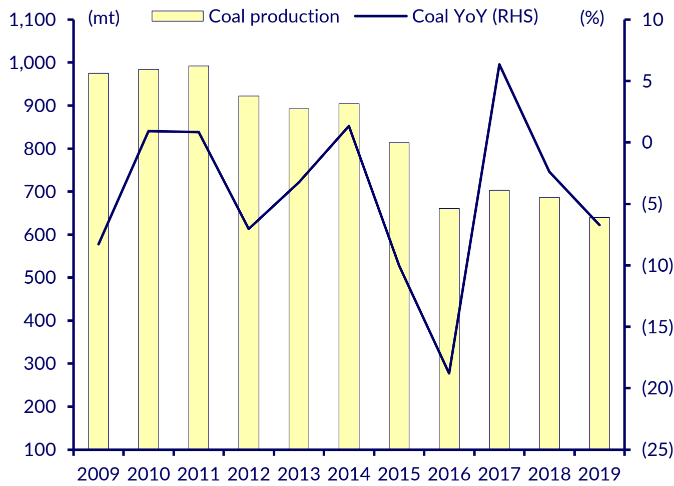
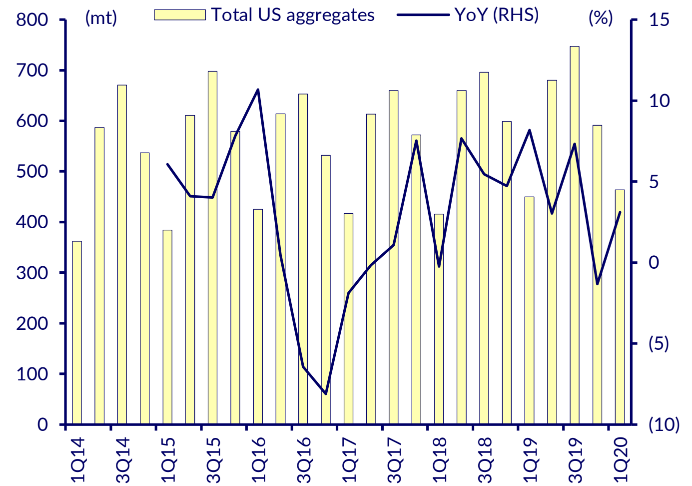
US Coal Production



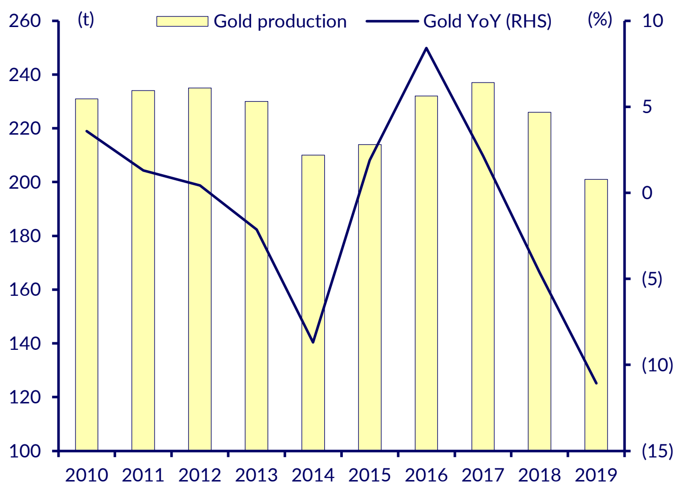
Source: CLSA, EIA

US Quarry & Construction



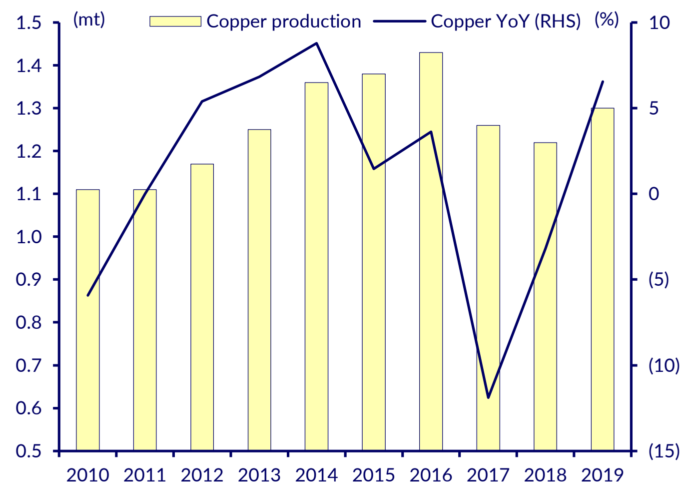
Source: CLSA, USGS

US Gold Production



Source: CLSA, USGS

US Copper Production



Source: CLSA, USGS

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Appendix 2: Commodity price assumptions

Below we detail our commodity price assumptions. We forecast fertiliser prices based on historical linkage to US natural gas prices and ammonia.

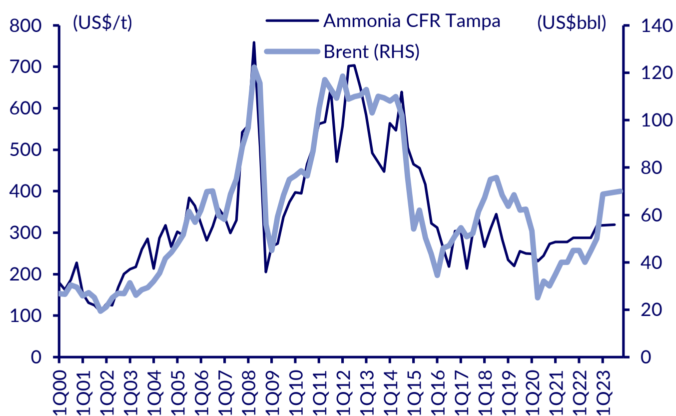
Commodity price forecasts

	Unit	2017	2018	2019	2020	2021	2022
FX							
AUD/USD	x	0.77	0.75	0.70	0.68	0.70	0.71
AUD/EUR	x	0.68	0.63	0.62	0.60	0.60	0.61
Commodities							
Henry Hub	US$Mmbtu	3.04	3.24	2.63	1.87	2.51	2.51
Ammonia CFR Tampa	US$/t	280	313	248	244	277	288
DAP US Gulf NOLA	US$/t	355	419	350	299	327	348
Urea US Gulf NOLA	US$/t	236	291	274	260	267	268

Source: CLSA, Bloomberg, FactSet. Calendar Year

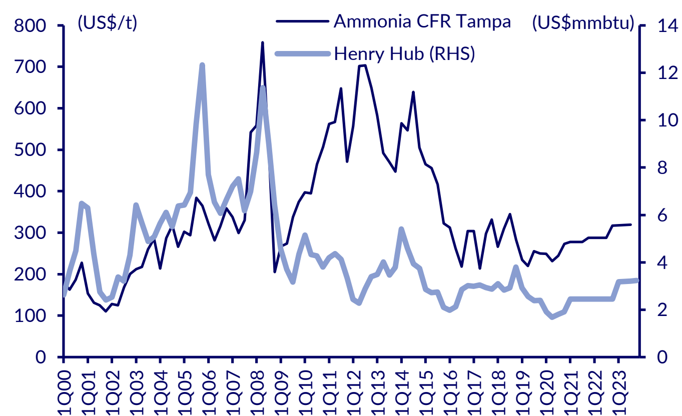
Price relationships

Ammonia vs oil



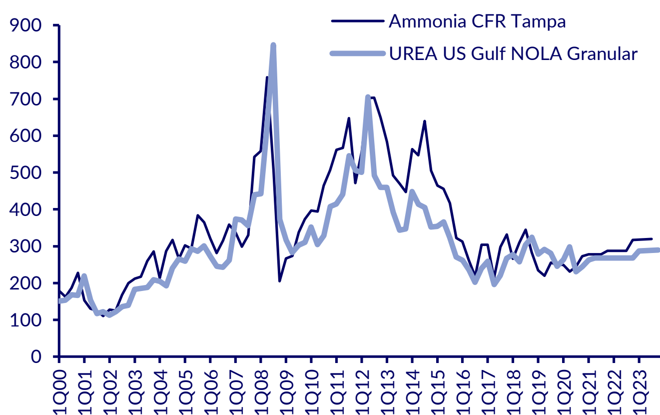
Source: CLSA, Bloomberg

Ammonia vs US natural gas



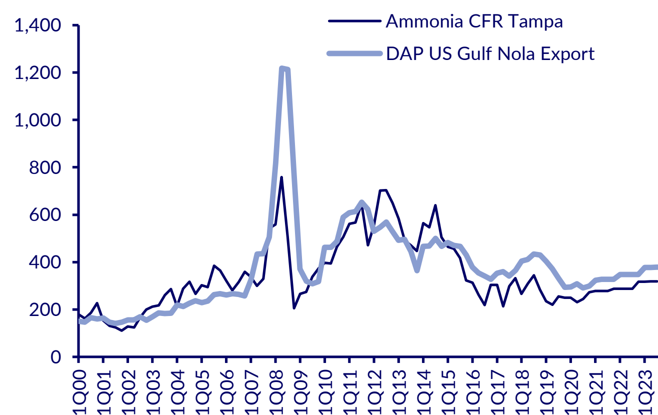
Source: CLSA, Bloomberg

Ammonia vs urea



Source: CLSA, Bloomberg

Ammonia vs DAP



Source: CLSA, Bloomberg

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Companies mentioned

Alliance Resource Partners (N-R)

ALS (ALQ AU - A$6.87 - U-PF)

Ansell (N-R)

BASF (N-R)

Bayer (N-R)

BHP (N-R)

BINGO (N-R)

BlueScope (BSL AU - A$12.00 - U-PF)

Boral (BLD AU - A$3.75 - U-PF)

Brambles (BXB AU - A$11.01 - O-PF)

CF Industries (N-R)

CIMIC (CIM AU - A$24.98 - U-PF)

Cleanaway (N-R)

Codelco (N-R)

Consol Energy (N-R)

Contura Energy (N-R)

Coronado (N-R)

Costa Group (N-R)

DowDuPont (N-R)

Downer (N-R)

Elders Ltd (N-R)

Emeco (EHL AU - A$1.06 - O-PF)

Fitzroy Resources (N-R)

FMC (N-R)

Fortescue (N-R)

Glencore (N-R)

Imdex (IMD AU - A$0.99 - O-PF)

Incitec Pivot (N-R)

IPH (N-R)

Israel Chemicals (N-R)

James Hardie (JHX AU - A$26.70 - O-PF)

JSW Steel (JSTL IB - RS189.6 - SELL)

K+S (N-R)

Monadelphous (MND AU - A$11.54 - O-PF)

Mongolia Energy (N-R)

Mosaic (N-R)

New Hope (N-R)

NRW (NWH AU - A$1.89 - BUY)

Nufarm (N-R)

Nutrien US (N-R)

One Rock Capital (N-R)

Orica (N-R)

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Orora (N-R)
Peabody Energy (N-R)
Perenti (PRN AU - A$1.40 - BUY)
PhosAgro (N-R)
PotashCorp (N-R)
PPG (N-R)
Rio Tinto (N-R)
SAP (N-R)
Seven Group (SVW AU - A$17.92 - O-PF)
South32 (N-R)
Sumitomo Chemical (N-R)
Teck Resources (N-R)
Terra Nitrogen (N-R)
Wesfarmers (WES AU - A$43.14 - U-PF)
Worley (WOR AU - A$9.34 - O-PF)
Yara International (N-R)

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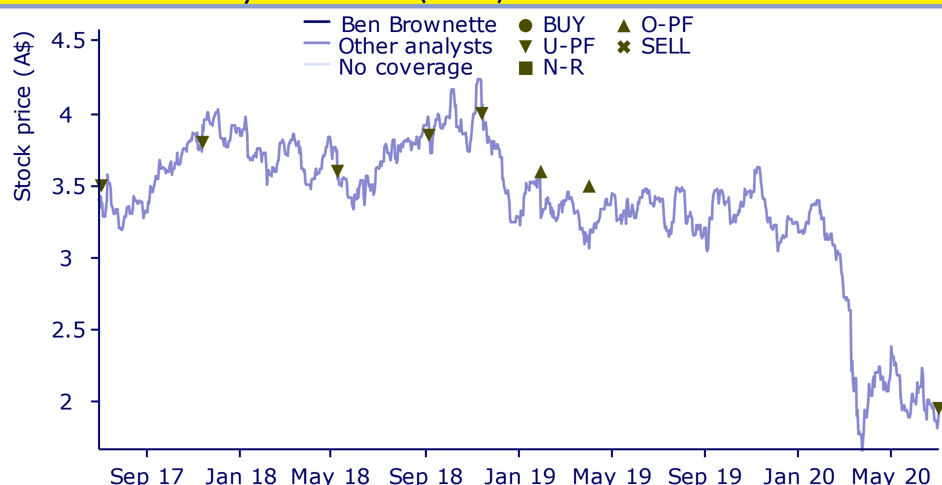
Important disclosures

Recommendation history of Incitec Pivot (IPL AU)



Date	Rec	Target	Date	Rec	Target
LATEST	U-PF	1.96	05 Sep 2018	U-PF	3.85
10 Jul 2019	Dropped Coverage		09 May 2018	U-PF	3.60
02 Apr 2019	O-PF	3.50	14 Nov 2017	U-PF	3.80
29 Jan 2019	O-PF	3.60	05 Jul 2017	U-PF	3.50
13 Nov 2018	U-PF	4.00			

Source: CLSA

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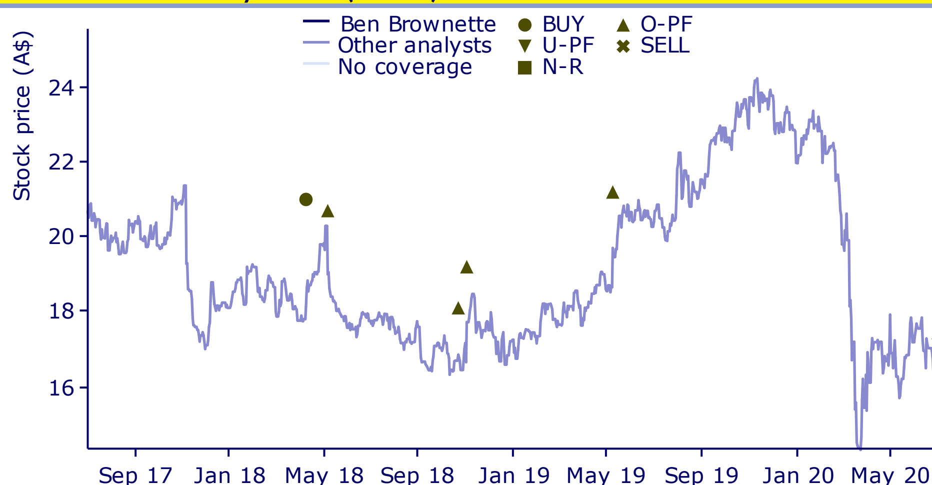
Recommendation history of Orica (ORI AU)



Date	Rec	Target	Date	Rec	Target
LATEST	U-PF	17.10	22 Oct 2018	O-PF	18.10
10 Jul 2019	Dropped Coverage		07 May 2018	O-PF	20.70
09 May 2019	O-PF	21.20	09 Apr 2018	BUY	21.00
02 Nov 2018	O-PF	19.20			

Source: CLSA

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We define as "Double Baggers" stocks we expect to yield 100% or more (including dividends) within three years at the time the stocks are introduced to our "Double Bagger" list. "High Conviction" Ideas are not necessarily stocks with the most upside/downside, but those where the Research Head/Strategist believes there is the highest likelihood of positive/negative returns. The list for each market is monitored weekly.

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Overall rating distribution for CLST only Universe: Overall rating distribution: BUY / Outperform - CLST: 61.43%, Underperform / SELL - CLST: 37.14%, Restricted - CLST: 0.00%. Data as of 30 Jun 2020. Investment banking clients as a % of rating category: BUY / Outperform - CLST: 0.00%, Underperform / SELL - CLST: 0.00%, Restricted - CLST: 0.00%. Data for 12-month period ending 30 Jun 2020.

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