# **BELL POTTER**

# **Analyst**

Jonathan Snape 613 9235 1601

#### **Authorisation**

Tim Piper 612 8224 2825

# Bega Cheese Ltd (BGA)

# Soaking up spilt milk

# Recommendation

Buy (Hold) **Price** \$6.16 Target (12 months) \$7.00 (previously \$7.50)

### **GICS Sector**

## **Food Beverage and Tobacco**

Expected Return	
Capital growth	13.6%
Dividend yield	1.8%
Total expected return	15.4%
<b>Company Data &amp; Ratios</b>	
Enterprise value	\$1,605m
Market cap	\$1,311m
Issued capital	212.8m
Free float	100%
Avg. daily val. (52wk)	\$4.5m
12 month price range	\$6.08-8.155

Price Performance						
	(1m)	(3m)	(12m)			
Price (A\$)	7.58	7.24	6.82			
Absolute (%)	-19.39	-15.61	-10.41			
Rel market (%)	-13 91	-8 94	-12 18			

# **Absolute Price** \$10.0 \$8.0 \$6.0 \$4.0 \$2.0

Oct 16 Apr 17 Oct 17 Apr 18 Oct 18 BGA ——S&P 300 Rebased

# A fluid market

We have reviewed our forecasts in light of recent competitor farmgate price announcements, industry production statistics and movements in commodity prices. In essence we highlight three things:

Farmgate prices: In recent weeks both Fonterra and Saputo have raised their 2018/19 farmgate milk prices by \$0.13/KgMS and \$0.20/KgMS, respectively. Regional farmgate prices look in a range of \$5.95-5.98/KgmS and compares to BGA's opening price of \$5.85/KgMS. To sustain milk prices we assume BGA will need to match.

Spectrum returns: Typically we would expect higher farmgate prices to reflect an improvement in spectrum returns for commodity products. However, we have seen no material uplift in spectrum returns in recent weeks to mitigate higher milk costs.

Fonterra supply losses: Fonterra highlighted STD milk supply in Australia was down 8% YOY. This compares to milk production in SE Australia being down ~4% YOY. Based on Fontera's milk intake in FY18, this would suggest milk losses of ~100mL in excess of industry movements on an annualised basis and we expect BGA to benefit.

We have incorporated a higher farmgate milk price assumption into our BGA forecasts, assuming that BGA is likely to match industry moves. As there is no offsetting commodity price movement this results in downgrades to NPAT of 10% in FY19e, 8% in FY20e and 8% in FY21e. Our target price falls to \$7.00ps (prev. \$7.50ps) as a result of these changes.

# Investment view: Upgrade to Buy

Seasonal milk supply in a dry year remains the biggest risk for BGA, with each litre historically returning EBITDA of 8-9¢ for BGA. However, in light of the recent share price correction we see BGA as trading at 10.2-10.6x ProForma EBITDA (adjusted for legal costs, annualised benefit of Koroit, recent milk supply gains and assuming an annualised performance of MDLZ & PCA), a reasonable discount to global dairy processors trading (at ~11.6x). We upgrade our rating from Hold to Buy.

Earnings Forecast								
Year end June	2018	2019e	2020e	2021e				
Sales (A\$m)	1438.3	1760.9	1902.5	1968.4				
EBITDA (A\$m)	109.6	137.8	156.3	163.0				
NPAT (reported) (A\$m)	28.8	52.1	64.1	69.9				
NPAT (adjusted) (A\$m)	44.0	57.4	69.3	75.2				
EPS (adjusted) (cps)	23.8	27.9	32.6	35.3				
EPS growth (%)	19.6	17.2	16.9	8.4				
PER (x)	25.9	22.1	18.9	17.4				
FCF Yield (%)	-4.6	-0.3	2.4	3.5				
EV/EBITDA (x)	14.6	11.6	10.3	9.8				
Dividend (¢ps)	11.0	11.0	12.0	13.0				
Franking (%)	100.0	100.0	100.0	100.0				
Yield (%)	1.8	1.8	1.9	2.1				
ROE (%)	7.3	7.8	8.1	8.4				
SOURCE: BELL POTTER SECURITIES ESTIMATES								

SOURCE: IRESS

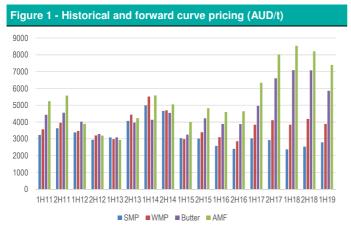
Page 1

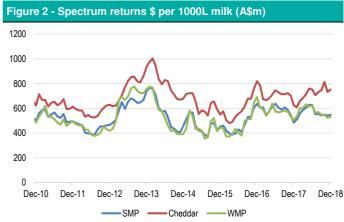
# Looking at underlying earnings potential

At current levels we believe investors are acquiring BGA on a ProForma FY18 EV/EBITDA multiple of 10.2-10.6x. This compare to global dairy stocks trading at an average 11.6x FY19e EBITDA and global FMCG companies trading at 11.8x FY19e EBITDA. While there are clearly seasonal risks around milk supply in FY19e we see enough positive developments that suggest BGA is worth accumulating once again.

## RECENT FARMGATE PRICE ANNOUNCEMENTS PROMPT A DOWNGRADE

In recent weeks both Saputo and Fonterra Australia have lifted their 2018/19 farmgate forecasts, with Saputo lifting from \$5.75/KgMS to \$5.95/KgMS and Fonterra Australia lifting from \$5.85/KgMS to \$5.98/KgMS. These prices compare to BGA at \$5.85/KgMS and as such we assume that BGA will need to match the market to sustain milk flows. Typically famgate price uplifts are matched by commodity price movements, but we have seen little to suggests that the targeted uplifts have been matched by movements in returns for SMP/WMP/Cheddar and as such see this as likely to lead to margin erosion.





SOURCE: GLOBAL DAIRY TRADE AND NZX

SOURCE: GLOBAL DAIRY TRADE AND NZX FUTURES

# **DETERMINING PROFORMA FY18 EBITDA**

In this section we attempt to reconstruct a ProForma EBITDA performance for BGA incorporating the annualised benefit of recent acquisitions and to remove what we would consider non-recurring expenses (legal costs etc...) which have been taken above the line in FY18 and will continue to hamper FY19e. We calculate a ProForma underlying FY18 EBITDA of ~\$148-154m, which is a level broadly consistent with our FY20e forecasts.

Figure 3 - ProForma FY18 EBITDA		
	Low	High
BGA Reported FY18 EBITDA	109.6	109.6
MDLZ integration costs and legal costs	8.0	11.5
- Delayed sales impact	1.0	1.5
- transition and legal costs in F18	7.0	10.0
PCA annualised benefit	1.5	2.5
Existing BGA business	119.1	123.6
Koroit at 300ml	20.0	20.0
Net Milk accumulation (~115mL)	9.2	10.4
ProForma FY18e EBITDA	148.3	154.0

SOURCE: COMPANY DATA AND BELL POTTER SECURITIES ESTIMATES

We highlight three key assumptions in this analysis:

One off impacts in Bega Foods in FY18: There appears to have been a number of non-recurring expenses and revenue losses in FY18 in the Bega Foods business, which we expect to dissipate as headwinds over FY19-20e. These include the impact of trade loading ahead of completion of the sale (resulting is slow sales in the first month of

ownership), legal costs relating to lawsuits with both Kraft and Fonterra, integration expenses (including duplication of shared service charges) and upfront brand investment. In total we estimate the combined impact of these factors was \$8.0-11.5m and while we expect some of these costs to remain into FY19e (largely legal costs) we expect these to dissipate as a headwind over FY19-20e.

**Consolidation of the PCA acquisition:** If the domestic peanut crop can approach previous levels of ~22kt (vs. ~13.5kt in FY17) then EBITDA in the PCA would likely recover from ~\$0.3m in FY17 closer to \$3-4m. While the acquisition has for the most part has flown under the radar, we expect to see a recovering earnings base in FY19-21e.

**Milk supply gains:** In FY18 BGA gained ~97mL of milk from other suppliers and was targeting a further 115mL in net milk gains in FY19e. Since FY10 we estimate the average EBITDA return per litre generated by BGA has been ~8.4¢/L and the average gross margin return per litre has been ~17.1¢/L. While we expect the gross margin per litre is diluted with the addition of Koroit (and its bias towards SMP) we don't expect a material deviation in the EBITDA per litre being generated versus the historical range of 8-9¢/L.

**Koroit acquisition:** At the time of the acquisition BGA highlighted a business that would be capable of generating EBITDA of ~\$20m with 300mL of milk supply. Since acquiring the asset BGA has diverted ~100mL (previously sent to Coburg) and attracted new suppliers, prompting an upgrade to ProForma FY19e milk intake of 420-450mL. While in part it reflects diversions, we expect Koroit to climb towards 550mL of milk supply by FY21e. We would highlight recent contract issues between Saputo and a group of former MGC farmers covering an estimated 50-80mL and what appears ~100mL of milk losses from Fonterra, as perhaps signals that BGA should be capable of attracting new suppliers to reach our target milk production forecast in the coming years.

# **BGA** company overview

### **COMPANY DESCRIPTION**

Bega Cheese Limited (BGA) is engaged in the processing, manufacturing and distribution of dairy and associated products to both Australian and international markets. BGA operates five processing facilities across NSW & VIC with the capacity to process ~250kt of product across three operating divisions while also holding a strategic 25% investment in CCFA, a fresh milk processor in Canberra.

### **VALUATION**

Our \$7.00ps target price for BGA is derived from a combination of: (1) Underlying ROIC based approach: which is based on ROIC adjusted for surplus property of 9.4% in FY19e lifting to 10.5% in FY20e, and a WACC hurdle of 8.8%, deriving an EV/EBITDA multiple of 8.9x in FY19e lifting to 9.8x in FY20e the base business; (2) Value for surplus land assets and franking credits: We have incorporated a value for the Port Melbourne land acquired in the MLDZ acquisition and a value for expected surplus franking credit; and (3) Value for Koroit: We incorporate value for Koroit at 550mL of milk intake, with the difference between the baseline estimate and 550mL estimate incorporated as upside in FY19-20e.

### **RISKS**

Risks facing BGA include but are not limited to:

**AUD commodity prices**: With ~20-25% of revenues exposed to commodity markets and a further 15-20% exposed to export FMCG or Nutritionals based revenue streams, BGA is exposed to both movements in the AUD and global dairy commodity prices. While the impact is insulated via the groups domestic FMCG and cut & pack operations, sharp movements up or down can have a meaningful impact on profitability, particularly in the Tatura business;

**Seasonal risk factors**: BGA is exposed to the impact of weather conditions such as droughts and other factors that may reduce the level of milk produced in the catchment area:

**Milk supply and costs**: BGA purchases milk from dairy farmers on annual basis, seasonal factors or competitive response may limit supply or result in changes to farmgate milk pricing assumptions greater than we have allowed;

**Change in long-term relationships:** BGA distributes its branded and other cheese products through long term cost plus contracts with companies including Fonterra, Kraft, Woolworths and Aldi Any loss of a material cheese contract could hamper returns in the business; and

**Execution risk on the MDLZ acquisition:** a key reason for our favourable view on BGA is a belief in the success of the integration of the MDLZ assets and the potential to expand the companies branded portfolio over time. Failure to execute on this strategy may result in BGA failing to achieve our earnings estimates or target price.

**Customer and supplier relationships:** There is a risk that as a result of acquiring MDLZ grocery business and competing in the markets some of its products, contractual relationships with customers may result in decreased sales volumes and increased costs which could affect the financial performance of BGA.

**Expiry of Kraft trade mark licence:** Some of the products acquired by BGA, are or have previously been sold under the Kraft brand. The licence rights to use the Kraft brand will expire in Dec'17 and while there are transitional branding arrangements being implemented, there are risks with this transitional branding. Kraft-Heinz will also be in a

position to compete selling Kraft branded products which may introduce a higher level of competition into the market.

**Brand, product and reputation risk:** Earnings could be impacted by failing to meet customer expectations of quality; contamination or recall; adverse media coverage or other factors outside of the control of BGA.

**Industry risk:** There are a number of industry factors outside the control of the company, including regulatory, compliance and variations in legislation and government policies.

**Failure to retain key customers:** Given BGA's reliance on several key customers, a failure to maintain these relationships could adversely impact the financial performance of BGA.

# Bega Cheese Ltd as at 17 October 2018

RecommendationBuyPrice\$6.16Target (12 months)\$7.00

Table 1 - Financ	cial sum	mary													
June year end	2015	2016	2017	2018	2019e	2020e	2021e	Recommendation							Buy
Profit & Loss (A\$m)	2010	2010	2011	2010	20100	20200	20210	Share price (\$ps)							6.16
Sales revenue	1112.6	1196.0	1226.7	1438.3	1760.9	1902.5	1968.4	Target price (\$ps)							7.00
Change	4.0%	7.5%	2.6%	17.3%	22.4%	8.0%	3.5%	Diluted issued capital (m)	١						212.8
EBITDA	55.7	65.4	70.6	109.6	137.8	156.3	163.0	Market cap (\$m)	1						1311.0
Deprec. & amort.		(21.9)	(24.7)	(30.8)	(37.8)	(38.8)	(38.8)	Eneterprise value (\$m)							1604.8
•	(22.2)	' '	, ,	' '	. ,	, ,	, ,	Effeter prise value (\$111)							1004.0
EBIT	33.5	43.5	45.9	78.9	97.9	114.5	121.1	l	2045	2040	2047	2040	2040-	2020-	2024-
Interest expense	(3.3)	(3.6)	(2.8)	(9.8)	(16.0)	(15.5)	(13.8)	June year end	2015	2016	2017	2018	2019e	2020e	2021e
Pre-tax profit	30.2	39.9	43.2	69.0	81.9	99.0	107.4	Valuation Ratios	44.4	40.0	40.0	00.0	07.0	00.0	05.0
Tax expense	(8.1)	(11.1)	(12.8)	(25.0)	(24.6)	(29.7)	(32.2)	EPS (¢ps)	14.4	18.9	19.9	23.8	27.9	32.6	35.3
tax rate	27%	28%	30%	36%	30%	30%	30%	Change (%)	-26.2%	30.6%	5.4%	19.6%	17.2%	16.9%	8.4%
Minorities		-	-	-		-	-	PE (x)	42.6	32.7	31.0	25.9	22.1	18.9	17.4
Net Profit	22.0	28.8	30.3	44.0	57.4	69.3	75.2	EV/EBITDA (x)	28.8	24.5	22.7	14.6	11.6	10.3	9.8
Abs. & extras.	(9.6)	0.1	108.4	(15.2)	(5.3)	(5.3)	(5.3)	EV/EBIT (x)	47.9	36.9	34.9	20.4	16.4	14.0	13.2
Reported Profit	12.4	28.9	138.7	28.8	52.1	64.1	69.9								
								NTA (\$ps)	2.04	2.10	3.60	1.19	1.49	1.62	1.82
Cashflow (A\$m)								P/NTA (x)	3.02	2.94	1.71	5.17	4.13	3.79	3.38
EBITDA	55.7	65.4	70.6	109.6	137.8	156.3	163.0	Book Value (\$ps)	2.05	2.15	3.26	3.42	3.93	4.11	4.31
Tax Paid	(9.9)	(3.3)	(10.7)	(79.2)	(24.7)	(28.4)	(31.6)	Price/Book (x)	3.01	2.87	1.89	1.80	1.57	1.50	1.43
Net Interest Expense	(3.1)	(3.6)	(2.8)	(9.8)	(12.9)	(15.7)	(14.6)								
Change in Wkg Capital	(48.6)	(4.7)	12.9	(39.6)	(46.4)	(20.4)	(9.5)	DPS (¢)	8.5	9.5	10.0	11.0	11.0	12.0	13.0
Other	(11.1)	6.5	(12.5)	25.0	(5.3)	(5.3)	(5.3)	Payout(%)	59%	50%	50%	46%	39%	37%	37%
Operating Cash Flow	(17.0)	60.2	57.5	6.0	48.5	86.6	102.0	Yield (%)	1.4%	1.5%	1.6%	1.8%	1.8%	1.9%	2.1%
Capex	(18.7)	(34.0)	(39.3)	(46.6)	(30.0)	(30.0)	(30.0)	Franking (%)	100%	100%	100%	100%	100%	100%	100%
Div Paid (gross of DRP)	(13.0)	(13.7)	(15.3)	(19.4)	(21.9)	(24.5)	(26.6)		.0070					.0070	
Free Cash Flow	(48.7)	12.5	3.0	(60.0)	(3.3)	32.1	45.4	Performance Ratios							
Acquisitions	-	(6.7)	-	(478.3)	(297.0)	-	-	EBITDA/sales (%)	5.0%	5.5%	5.8%	7.6%	7.8%	8.2%	8.3%
Disposals	0.1	(0.1)	190.0	12.7	(237.0)	-	-	EBITA/sales (%)	3.0%	3.6%	3.7%	5.5%	5.6%	6.0%	6.2%
Share Issues (incl DRP)	-	-	119.5	50.0	198.7	-		OCF Realisation (%)	-39%	119%	105%	8%	51%	80%	90%
Other			0.8		190.7			٠,	-39% -162%	91%	60%	-92%	32%	82%	96%
	(18.7)	(0.2)		(30.0)	- (404.0)	-	- 4E 4	FCF Realisation (%)							
(Inc.) /dec. in net debt	(67.3)	5.6	313.3	(505.6)	(101.6)	32.1	45.4	ROE (%)	7.0%	9.0%	6.7%	7.3%	7.8%	8.1%	8.4%
D. L								ROIC (%)	9.9%	11.6%	13.3%	13.3%	9.5%	9.7%	10.2%
Balance Sheet (A\$m)	10.0							Aseet Turn (years)	2.51	2.99	2.86	3.56	3.65	4.03	4.20
Cash & near cash	10.3	9.7	475.5	21.7	20.0	20.0	20.0	Capex/Depn (x)	0.84	1.55	1.59	1.51	0.79	0.77	0.77
Receivables	119.5	143.7	168.5	200.6	245.5	265.3	274.5	Interest cover (x)	10.06	12.10	16.47	8.03	6.12	7.40	8.81
Inventories	194.9	192.4	167.9	232.1	284.1	307.0	317.6	Net Deb∜EBITDA (x)	1.05	0.81	(3.68)	2.24	2.52	2.01	1.65
Other	3.9	0.5	6.5	14.7	14.7	14.7	14.7	Net debt/equity (%)	18.8%	16.2%	-45.4%	38.8%	41.5%	36.0%	29.4%
Current assets	328.6	346.3	818.5	469.0	564.4	607.0	626.8	Net debt/(Net debt + Ec	15.8%	13.9%	-83.3%	28.0%	29.3%	26.5%	22.7%
Fixed assets	209.7	219.9	196.8	323.6	426.4	417.6	408.8								
Intangibles	1.8	7.9	22.7	411.5	528.5	528.5	528.5	Segmentals							
Other	12.33	12.55	18.34	11.74	31.61	31.61	31.61	Bega Cheese	725.0	759.2	808.5	1,007.0	1,113.1	1,157.2	1,183.0
Non current assets	223.8	240.4	237.8	746.8	986.4	977.6	968.9	Tatura	432.1	479.0	467.4	488.2	518.2	535.8	550.3
Total assets	552.4	586.7	1,056.3	1,215.8	1,550.8	1,584.6	1,595.7	Koroit					190.4	272.1	299.3
Creditors	139.1	156.0	169.3	225.9	276.6	298.8	309.2	Eliminations	(44.5)	(42.2)	(49.2)	(57.0)	(60.9)	(62.6)	(64.1)
Borrowings	11.5	15.2	0.1	0.1	0.1	0.1	0.1	Group revenue (\$m)	1,112.6	1,196.0	1,226.7	1,438.3	1,760.9	1,902.5	1,968.4
Other	28.7	38.0	97.2	52.2	32.9	38.0	41.9							, , , , , , , , , , , , , , , , , , , ,	
Current liabilities	179.3	209.3	266.6	278.2	309.6	336.9	351.2								
Borrowings	57.5	47.5	215.3	267.0	367.0	334.8	289.4	Bega Cheese	35.7	31.2	22.3	45.1	57.3	64.2	65.8
Other	3.0	2.1	1.7	38.7	38.7	38.7	38.7	Tatura	20.0	34.2	48.3	64.7	61.3	63.9	65.6
Non current liabilities	60.5	49.6	217.0	305.6	405.6	373.5	328.1	Koroit	20.0	J4.Z	40.0	04.7	19.2	28.3	31.6
												(0.4)			31.0
Total liabilities	239.8	258.8	483.6	583.8	715.2	710.4	679.2	Eliminations	- EE 7	- CE A	- 70 C	(0.1)	127.0	- 450 2	400.0
Net assets	312.7	327.8	572.7	632.0	835.7	874.2	916.5	Group EBITDA (\$m)	55.7	65.4	70.6	109.6	137.8	156.3	163.0
Share capital	103.9	103.9	224.7	274.9	474.9	474.9	474.9								
Reserves	20.9	21.1	21.7	21.5	21.5	21.5	21.5								
Retained earnings	187.8	202.8	326.3	335.7	339.4	377.9	420.1								
Outside equity Interests	-	•		-	-	-	-								
S/holders' funds	312.7	327.8	572.7	632.0	835.7	874.2	916.5								
Net Debt (Cash)	58.7	53.1	(260.2)	245.4	347.1	315.0	269.5								

SOURCE: BELL POTTER SECURITIES ESTIMATES

# **Recommendation structure**

**Buy:** Expect >15% total return on a 12 month view. For stocks regarded as 'Speculative' a return of >30% is expected.

**Hold:** Expect total return between -5% and 15% on a 12 month view

Sell: Expect <-5% total return on a 12 month view

Speculative Investments are either start-up enterprises with nil or only prospective operations or recently commenced operations with only forecast cash flows, or companies that have commenced operations or have been in operation for some time but have only forecast cash flows and/or a stressed balance sheet.

Such investments may carry an exceptionally high level of capital risk and volatility of returns.

## Research Team

Staff Member	Title/Sector	Phone	@bellpotter.com.au	
TS Lim	Head of Research	612 8224 2810	tslim	
Industrials				
Sam Haddad	Industrials	612 8224 2819	shaddad	
Chris Savage	Industrials	612 8224 2835	csavage	
Jonathan Snape	Industrials	613 9235 1601	jsnape	
Tim Piper	Industrials	612 8224 2825	tpiper	
John Hester	Healthcare	612 8224 2871	jhester	
Tanushree Jain	Healthcare/Biotech	612 8224 2849	tnjain	
Financials				
TS Lim	Banks/Regionals	612 8224 2810	tslim	
Lafitani Sotiriou	Diversified Financials/Fintech	613 9235 1668	Isotiriou	
Resources				
Peter Arden	Resources	613 9235 1833	parden	
David Coates	Resources	612 8224 2887	dcoates	
Stuart Howe	Resources	613 9235 1856	showe	
Analysts				
James Filius	Analyst	613 9235 1612	jfilius	
Alexander McLean	Analyst	612 8224 2886	amclean	
Damien Williamson	Analyst	613 9235 1958	dwilliamson	

## **Bell Potter Securities Limited**

ACN 25 006 390 7721 Level 38, Aurora Place 88 Phillip Street, Sydney 2000 **Telephone** +61 2 9255 7200 www.bellpotter.com.au

# The following may affect your legal rights. Important Disclaimer:

This document is a private communication to clients and is not intended for public circulation or for the use of any third party, without the prior approval of Bell Potter Securities Limited. In the USA and the UK this research is only for institutional investors. It is not for release, publication or distribution in whole or in part to any persons in the two specified countries. In Hong Kong this research is being distributed by Bell Potter Securities (HK) Limited which is licensed and regulated by the Securities and Futures Commission, Hong Kong. This is general investment advice only and does not constitute personal advice to any person. Because this document has been prepared without consideration of any specific client's financial situation, particular needs and investment objectives ('relevant personal circumstances'), a Bell Potter Securities Limited investment adviser (or the financial services licensee, or the representative of such licensee, who has provided you with this report by arrangement with Bell Potter Securities Limited) should be made aware of your relevant personal circumstances and consulted before any investment decision is made on the basis of this document.

While this document is based on information from sources which are considered reliable, Bell Potter Securities Limited has not verified independently the information contained in the document and Bell Potter Securities Limited and its directors, employees and consultants do not represent, warrant or guarantee, expressly or impliedly, that the information contained in this document is complete or accurate. Nor does Bell Potter Securities Limited accept any responsibility for updating any advice, views opinions, or recommendations contained in this document or for correcting any error or omission which may become apparent after the document has been issued.

Except insofar as liability under any statute cannot be excluded. Bell Potter Securities Limited and its directors, employees and consultants do not accept any liability (whether arising in contract, in tort or negligence or otherwise) for any error or omission in this document or for any resulting loss or damage (whether direct, indirect, consequential or otherwise) suffered by the recipient of this document or any other person.

## Disclosure of interest:

Bell Potter Securities Limited, its employees, consultants and its associates within the meaning of Chapter 7 of the Corporations Law may receive commissions, underwriting and management fees from transactions involving securities referred to in this document (which its representatives may directly share) and may from time to time hold interests in the securities referred to in this document.

Disclosure: Bell Potter Securities acted as Lead manager in BGA's \$200m institutional placement and \$50m non-underwritten SPP in Sep'18 and received fees for that service.

## ANALYST CERTIFICATION

Each research analyst primarily responsible for the content of this research report, in whole or in part, certifies that with respect to each security or issuer that the analyst covered in this report: (1) all of the views expressed accurately reflect his or her personal views about those securities or issuers and were prepared in an independent manner and (2) no part of his or her compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by that research analyst in the research report.