



INDONESIA

BISI IJ Outperform

Price (at 09:05, 05 Nov 2015 GMT) Rp1,355

Valuation Rp 2,000
- PER

12-month target Rp 2,000

Upside/Downside % +47.6

12-month TSR % +50.0

Volatility Index Very High

GICS sector Food, Beverage & Tobacco

Market cap Rpbn 4,065

Market cap US\$m 300

Free float % 46

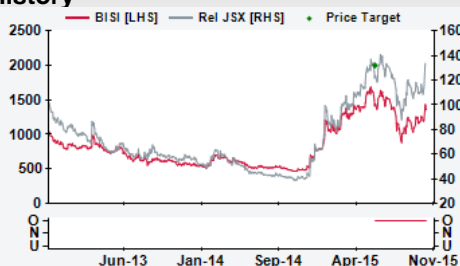
30-day avg turnover US\$m 0.2

Number shares on issue m 3,000

Investment fundamentals

Year end 31 Dec		2014A	2015E	2016E	2017E
Revenue	bn	1,155.6	1,399.5	1,663.2	1,950.9
EBIT	bn	206.5	332.8	402.3	474.0
EBIT growth	%	5.1	61.2	20.9	17.8
Reported profit	bn	165.3	278.6	333.5	390.2
Adjusted profit	bn	165.3	278.6	333.5	390.2
EPS rep	Rp	55.1	92.9	111.2	130.1
EPS rep growth	%	30.1	68.6	19.7	17.0
EPS adj	Rp	55.1	92.9	111.2	130.1
EPS adj growth	%	30.1	68.6	19.7	17.0
PER rep	x	24.6	14.6	12.2	10.4
PER adj	x	24.6	14.6	12.2	10.4
Total DPS	Rp	12.0	21.0	35.4	42.4
Total div yield	%	0.9	1.5	2.6	3.1
ROA	%	11.5	16.8	18.1	19.0
ROE	%	10.7	16.3	17.2	17.9
EV/EBITDA	x	18.2	11.2	9.3	7.9
Net debt/equity	%	-10.9	-32.8	-29.3	-26.4
P/BV	x	2.5	2.2	2.0	1.8

BISI IJ rel JSX performance, & rec history



Note: Recommendation timeline - if not a continuous line, then there was no Macquarie coverage at the time or there was an embargo period.

Source: FactSet, Macquarie Research, November 2015
(all figures in IDR unless noted)

Analyst(s)

Hendy Soegiarto

+6221 25988369 hendy.soegiarto@macquarie.com

6 November 2015

PT Macquarie Capital Securities
Indonesia

Bisi International

Subsidy delivered

Event

- BISI reported its 3Q15 result last week, with net profit growing a strong 77% QoQ and 48% YoY. Our thesis from initiation has started to play out and BISI has been booking 10k tons of corn seed sales with 7kt coming from the subsidy programme. We expect the company to sell another 4kt of corn seed until the year-end. We continue to believe BISI will be a multiyear story as the government has given indication to continue the subsidy programme for next year. Maintain our Outperform rating and our TP even as we roll forward our valuation.

Impact

- Government subsidy delivered and expected to continue next year.** The government has delivered its seed subsidy programme, which has resulted in BISI seed sales in 3Q15 at 5.8kt. The government has indicated it will continue the programme to provide 15kt of corn seed subsidy to farmers. This year, BISI delivered 7kt out of the 15kt government programme. We assume government sales will stay at 7k tons per annum next year. El Nino has pushed back the planting season for farmers this year, from its usual 4Q15. Seeds for the government programme have been largely procured and sold but have yet to be planted.
- Corn price stays elevated in the local market, incentivising farmers to plant corn.** The local corn price has stayed elevated over the past few weeks on the back of government import restrictions. The company claims the corn price has increased to Rp3,800/kg from Rp3,200/kg a month ago. This should incentivize the planting of more corn. We expect corn seed sales to start rising in 4Q15, due to the delayed planting (El Nino planting).
- Structural story intact, as government focuses on agriculture.** We continue to believe in the government's attempt to improve the agriculture sector in Indonesia. During our discussion with the company, it said execution on the ground is good and that planting area is increasing for certain crops like paddy. The government aims to increase paddy and corn harvested area by 4% in 15F. We believe the amount of planted area will continue to increase over the years as Jokowi builds more dams and fixes irrigation issues.

Earnings and target price revision

- We lower our earnings estimates by 15-20% on the back of lower corn volume and lower ASP for corn. We maintain our TP even as we roll over to 16F.

Price catalyst

- 12-month price target: Rp2,000 based on a PER methodology.
- Catalyst: more clarity on subsidy and good weather

Action and recommendation

- We continue to like the company as a way to play the agriculture development in Indonesia. We believe a 15x P/E multiple for a company that is expected to grow ~20% is reasonable, especially as the growth gets the government's support in the form of seed subsidy and better push for irrigation systems and dams (increasing customer base).

Macquarie Governance and Risk Score (MGRS)

On our proprietary [Governance and Risk Score](#) Bisi International scores in the fourth quartile of our current universe coverage.

Analysis

- BISI reported 3Q15 result last week, with net profit growing a strong 77% QoQ and 48% YoY. Our thesis from initiation has started to play out and BISI has been booking 10k tons of corn seed sales with 7kt coming from the subsidy programme. We expect the company to sell another 4kt of corn seed sales until the year-end. We continue to believe BISI will be a multi-year story, as the government has given indication to continue the subsidy program for next year. Maintain our Outperform but maintain TP as we roll forward our valuation.

Fig 1 3Q15 result wrap

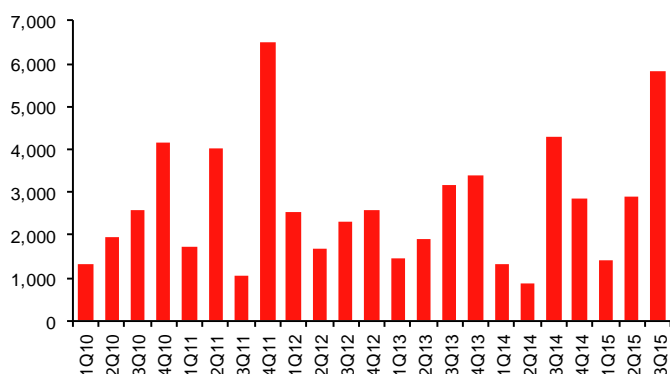
(Rpbn)	2Q15	3Q15		3Q14	3Q15		9M14	9M15		15Cons	% of Cons
Revenue	337	396	17%	349	396	13%	817	995	22%	1,509	66.0%
Gross Profit	111	173	56%	136	173	27%	277	376	36%	610	61.6%
Op Profit	59	106	82%	77	106	39%	106	219	107%	384	57.1%
Net Profit	50	89	77%	60	89	48%	90	188	109%	308	61.0%
Gross Margin	33.0%	43.8%		39.0%	43.8%		33.9%	37.8%		40.5%	
Op Margin	17.4%	26.9%		22.0%	26.9%		12.9%	22.0%		25.4%	
Net Margin	14.9%	22.5%		17.3%	22.5%		11.0%	18.9%		20.4%	

Source: Company Data, Macquarie Research, November 2015

Government subsidy delivered and expected to continue next year

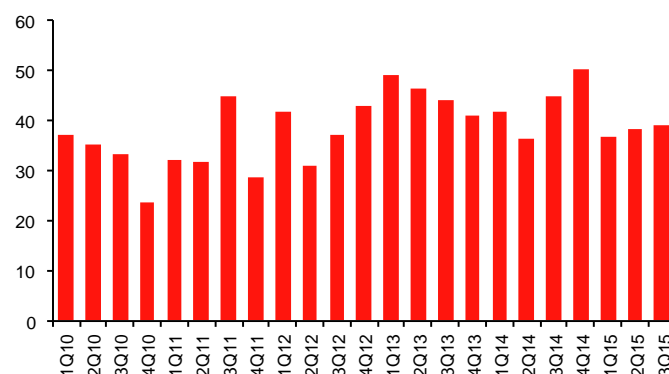
- The government has delivered its seed subsidy programme, which has resulted in BISI seed sales in 3Q15 at 5.8kt. The government has indicated that it will continue the programme to provide 15kt of corn seed subsidy to farmer.
- Thus, we are forecasting corn seed sales next year to only grow by 15%, coming from organic direct sales. BISI this year delivered 7kt out of the 15kt government programme. We are assuming government sales to stay at 7k ton per annum next year. BISI corn selling price is also lower when selling to the government hence margin is slightly lower in 3Q15.
- El Nino has impacted the planting season for the farmers this year shifting back the planting season which is expected to happen in 4Q15. The seed procurement for government programme is largely done but has not yet being planted

Fig 2 BISI corn volume



Source: Company Data, Macquarie Research, November 2015

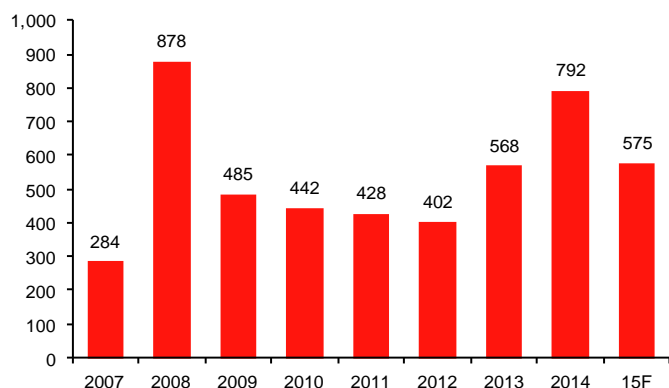
Fig 3 BISI corn price



Source: Company Data, Macquarie Research, November 2015

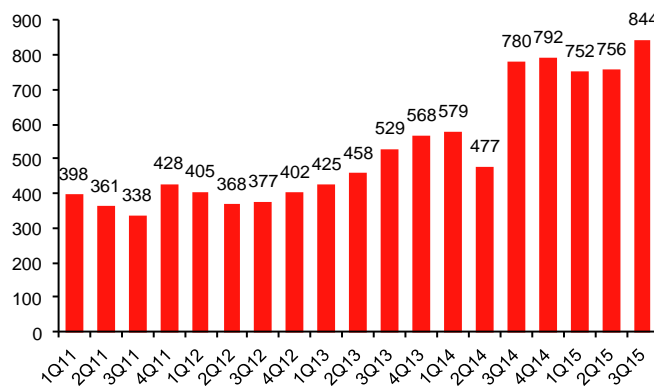
- In addition, we expect some improvement in the receivables for the company as well as that the government subsidy programme is paid by the year-end. We expect their receivable days to improve to ~150 days (including other receivable) which is coming from insurance claims on Mount Kelud eruption.

Fig 4 BISI account receivable - annual



Source: Company Data, Macquarie Research, November 2015

Fig 5 BISI account receivable - quarterly

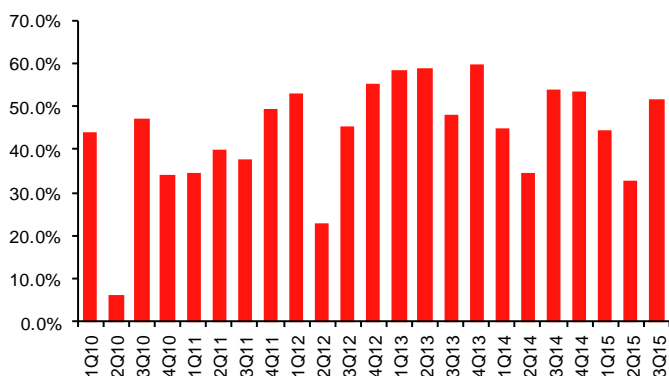


Source: Company Data, Macquarie Research, November 2015

Corn price stays elevated, incentivising farmers to plant corn

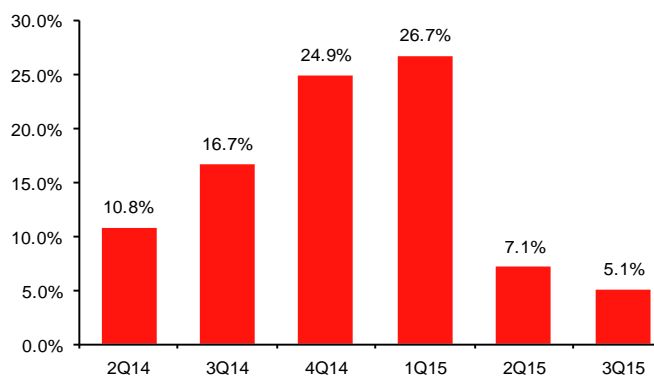
- The local corn price has also stayed elevated over past few weeks on the back of government import restrictions. The company claims the corn price has increased to Rp3,800/kg from Rp3,200/kg a month ago. This should incentivise the corn planters to plant corn. We expect corn seed sales to start increasing in 4Q15, due to the El Nino impact.

Fig 6 Corn margin



Source: Company Data, Macquarie Research, November 2015

Fig 7 Rice margin



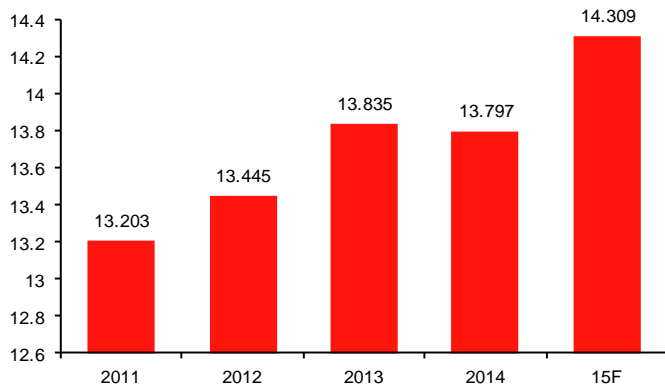
Source: Company Data, Macquarie Research, November 2015

- If there are increasing incentives for farmers to plant corn next year, we might see some of the rice producers start planting corn instead. The rice seed business for BISI also continues to grow albeit as a smaller margin. Note that rice seeds for BISI are open pollinated instead of hybrid, and hence cheaper. BISI's rice seeds are also participating in the government programme this year as part of promotion as the company will be able to penetrate the market first by offering the seeds through a subsidy programme.

Structural story intact, as government focuses on agriculture

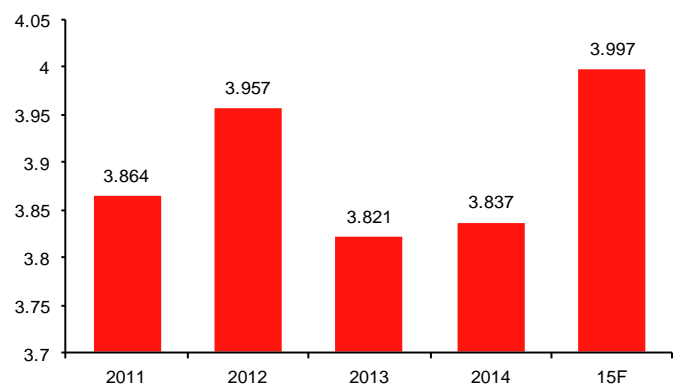
- We continue to believe in the government's attempt to improve the agriculture sector in Indonesia. During our discussion, the company pointed out to very good execution on the ground and that planting area for certain crops like paddy is increasing. The government aims to increase planted area for paddy and corn by 4% in 15F. We believe planted area will be able to continue to improve over coming years as Jokowi builds more dams.

Fig 8 Harvested area of rice (m ha)



Source: Ministry of Agriculture, November 2015

Fig 9 Harvested area of corn (m ha)



Source: Ministry of Agriculture, November 2015

Maintain Outperform with TP Rp2,000/sh

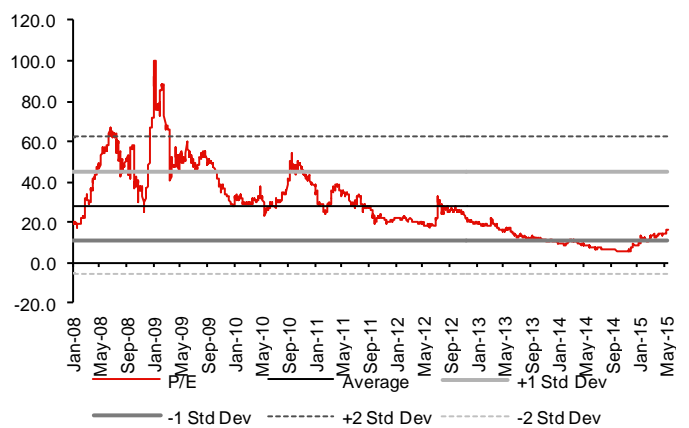
- We continue to like the company as a way to play the agriculture development in Indonesia. We believe 15x P/E multiple for a company that is expected to grow ~20% is reasonable, especially as the growth gets government support in the form of seed subsidy and better push for irrigation system and dams (increasing customer base).

Fig 10 P/E Band since 2012



Source: Bloomberg, Macquarie Research, November 2015

Fig 11 Long term P/E Band



Source: Bloomberg, Macquarie Research, November 2015

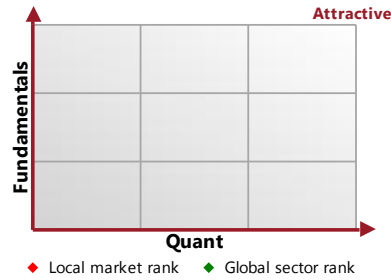
Macquarie Quant View

The quant model currently holds a strong positive view on Bisi International. The strongest style exposure is Quality, indicating this stock is likely to have a superior and more stable underlying earnings stream. The weakest style exposure is Profitability, indicating this stock is not efficiently converting its investments to earnings as proxied by ratios such as ROE, ROA etc.

12/489

Global rank in Food Beverage & Tobacco

% of BUY recommendations 0% (0/0)
 Number of Price Target downgrades 0
 Number of Price Target upgrades 0

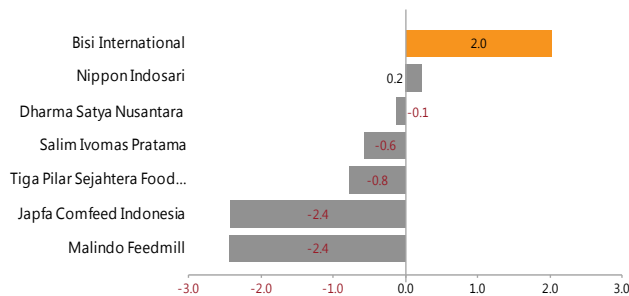


Displays where the company's ranked based on the fundamental consensus Price Target and Macquarie's Quantitative Alpha model.

Two rankings: Local market (Indonesia) and Global sector (Food Beverage & Tobacco)

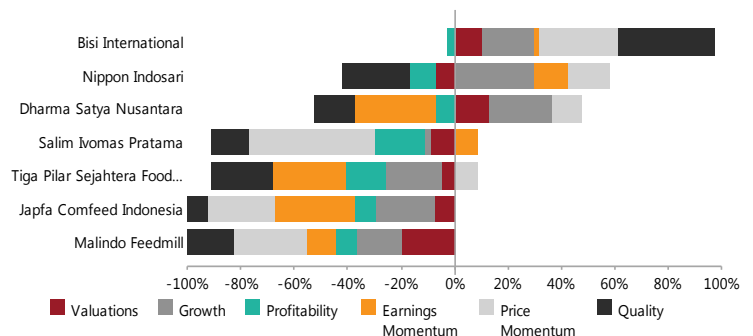
Macquarie Alpha Model ranking

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



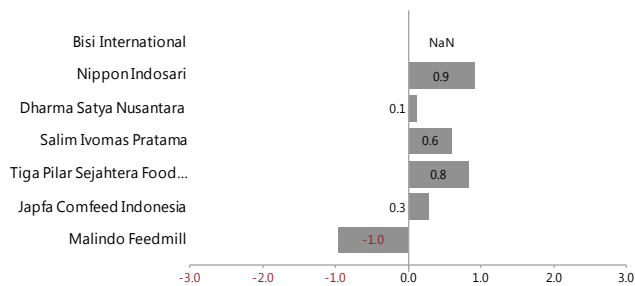
Factors driving the Alpha Model

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



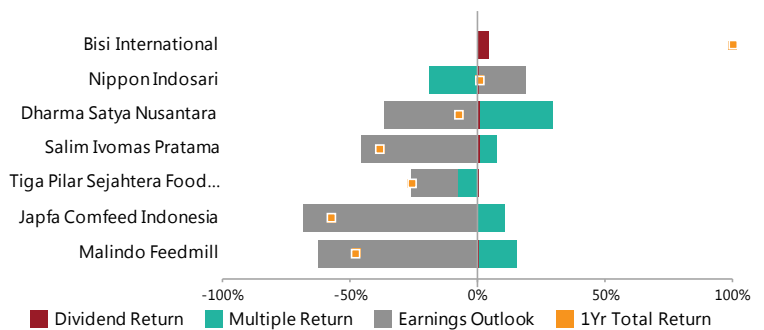
Macquarie Earnings Sentiment Indicator

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



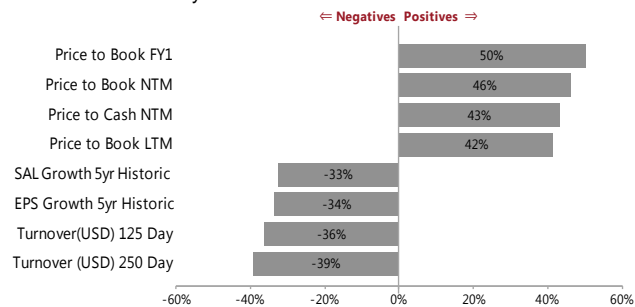
Drivers of Stock Return

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



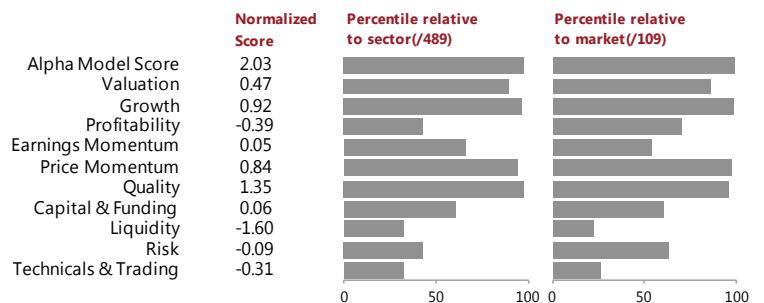
What drove this Company in the last 5 years

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



How it looks on the Alpha model

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



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

Bisi International (BISI IJ, Outperform, Target Price: Rp2,000)

Interim Results		1H/15A	2H/15E	1H/16E	2H/16E	Profit & Loss		2014A	2015E	2016E	2017E
Revenue	m	599,731	799,770	831,593	831,593	Revenue	m	1,155,560	1,399,501	1,663,186	1,950,917
Gross Profit	m	202,912	350,187	327,598	327,598	Gross Profit	m	403,321	553,099	655,196	760,963
Cost of Goods Sold	m	396,819	449,583	503,995	503,995	Cost of Goods Sold	m	752,239	846,402	1,007,990	1,189,954
EBITDA	m	122,607	224,876	209,361	209,361	EBITDA	m	213,405	347,483	418,722	492,538
Depreciation	m	9,652	5,047	8,223	8,223	Depreciation	m	6,940	14,699	16,445	18,494
Amortisation of Goodwill	m	0	0	0	0	Amortisation of Goodwill	m	0	0	0	0
Other Amortisation	m	0	0	0	0	Other Amortisation	m	0	0	0	0
EBIT	m	112,955	219,829	201,139	201,139	EBIT	m	206,465	332,784	402,277	474,044
Net Interest Income	m	5,297	5,703	5,500	5,500	Net Interest Income	m	5,847	11,000	11,000	11,000
Associates	m	0	0	0	0	Associates	m	0	0	0	0
Exceptionals	m	0	0	0	0	Exceptionals	m	0	0	0	0
Forex Gains / Losses	m	0	0	0	0	Forex Gains / Losses	m	0	0	0	0
Other Pre-Tax Income	m	6,401	2,327	4,364	4,364	Other Pre-Tax Income	m	-3,160	8,728	8,728	8,728
Pre-Tax Profit	m	124,653	227,859	211,003	211,003	Pre-Tax Profit	m	209,152	352,512	422,005	493,772
Tax Expense	m	-25,953	-47,992	-44,261	-44,261	Tax Expense	m	-43,873	-73,945	-88,522	-103,577
Net Profit	m	98,700	179,867	166,741	166,741	Net Profit	m	165,279	278,567	333,483	390,195
Minority Interests	m	-33	33	0	0	Minority Interests	m	-16	0	0	0
Reported Earnings	m	98,667	179,900	166,741	166,741	Reported Earnings	m	165,263	278,567	333,483	390,195
Adjusted Earnings	m	98,667	179,900	166,741	166,741	Adjusted Earnings	m	165,263	278,567	333,483	390,195
EPS (rep)		32.9	60.0	55.6	55.6	EPS (rep)		55.1	92.9	111.2	130.1
EPS (adj)		32.9	60.0	55.6	55.6	EPS (adj)		55.1	92.9	111.2	130.1
EPS Growth yoy (adj)	%	203.6	35.5	69.0	-7.3	EPS Growth (adj)	%	30.1	68.6	19.7	17.0
						PE (rep)	x	24.6	14.6	12.2	10.4
						PE (adj)	x	24.6	14.6	12.2	10.4
EBITDA Margin	%	20.4	28.1	25.2	25.2	Total DPS		12.0	21.0	35.4	42.4
EBIT Margin	%	18.8	27.5	24.2	24.2	Total Div Yield	%	0.9	1.5	2.6	3.1
Earnings Split	%	35.4	64.6	50.0	50.0	Basic Shares Outstanding	m	3,000	3,000	3,000	3,000
Revenue Growth	%	28.2	16.3	38.7	4.0	Diluted Shares Outstanding	m	3,000	3,000	3,000	3,000
EBIT Growth	%	252.0	26.1	78.1	-8.5						
Profit and Loss Ratios		2014A	2015E	2016E	2017E	Cashflow Analysis		2014A	2015E	2016E	2017E
Revenue Growth	%	9.4	21.1	18.8	17.3	EBITDA	m	213,405	356,211	427,450	501,266
EBITDA Growth	%	-1.0	62.8	20.5	17.6	Tax Paid	m	-43,873	-73,945	-88,522	-103,577
EBIT Growth	%	5.1	61.2	20.9	17.8	Chgs in Working Cap	m	-59,408	254,868	-182,532	-201,879
Gross Profit Margin	%	34.9	39.5	39.4	39.0	Net Interest Paid	m	5,847	11,000	11,000	11,000
EBITDA Margin	%	18.5	24.8	25.2	25.2	Other	m	9,763	0	0	0
EBIT Margin	%	17.9	23.8	24.2	24.3	Operating Cashflow	m	125,734	548,134	167,296	206,810
Net Profit Margin	%	14.3	19.9	20.1	20.0	Acquisitions	m	0	0	0	0
Payout Ratio	%	21.8	22.6	31.8	32.6	Capex	m	-33,229	-63,000	-58,212	-68,282
EV/EBITDA	x	18.2	11.2	9.3	7.9	Asset Sales	m	0	0	0	0
EV/EBIT	x	18.8	11.7	9.6	8.2	Other	m	-12,037	0	0	0
Balance Sheet Ratios						Investing Cashflow	m	-45,266	-63,000	-58,212	-68,282
ROE	%	10.7	16.3	17.2	17.9	Dividend (Ordinary)	m	-36,000	-63,000	-106,193	-127,127
ROA	%	11.5	16.8	18.1	19.0	Equity Raised	m	0	0	0	0
ROIC	%	12.1	18.4	26.0	25.9	Debt Movements	m	0	0	0	0
Net Debt/Equity	%	-10.9	-32.8	-29.3	-26.4	Other	m	-901	0	0	0
Interest Cover	x	nmf	nmf	nmf	nmf	Financing Cashflow	m	-36,901	-63,000	-106,193	-127,127
Price/Book	x	2.5	2.2	2.0	1.8	Net Chg in Cash/Debt	m	43,522	422,299	2,892	11,400
Book Value per Share		535.0	606.8	682.6	770.3	Free Cashflow	m	92,505	485,134	109,085	138,528
						Balance Sheet	2014A	2015E	2016E	2017E	
						Cash	m	174,425	596,559	599,451	610,851
						Receivables	m	791,501	575,138	683,501	801,747
						Inventories	m	534,245	510,160	607,556	717,233
						Investments	m	0	0	0	0
						Fixed Assets	m	275,531	323,835	365,601	415,389
						Intangibles	m	0	0	0	0
						Other Assets	m	95,338	95,338	95,338	95,338
						Total Assets	m	1,871,040	2,101,030	2,351,447	2,640,558
						Payables	m	107,663	121,140	144,267	170,310
						Short Term Debt	m	0	0	0	0
						Long Term Debt	m	0	0	0	0
						Provisions	m	0	0	0	0
						Other Liabilities	m	158,356	159,299	159,299	159,299
						Total Liabilities	m	266,019	280,439	303,566	329,609
						Shareholders' Funds	m	1,604,865	1,820,432	2,047,722	2,310,790
						Minority Interests	m	159	159	159	159
						Other	m	0	0	0	0
						Total S/H Equity	m	1,605,024	1,820,591	2,047,881	2,310,949
						Total Liab & S/H Funds	m	1,871,043	2,101,030	2,351,447	2,640,558

All figures in IDR unless noted.

Source: Company data, Macquarie Research, November 2015

Important disclosures:

Recommendation definitions

Macquarie - Australia/New Zealand

Outperform – return >3% in excess of benchmark return
 Neutral – return within 3% of benchmark return
 Underperform – return >3% below benchmark return

Benchmark return is determined by long term nominal GDP growth plus 12 month forward market dividend yield

Macquarie – Asia/Europe

Outperform – expected return >+10%
 Neutral – expected return from -10% to +10%
 Underperform – expected return <-10%

Macquarie First South - South Africa

Outperform – expected return >+10%
 Neutral – expected return from -10% to +10%
 Underperform – expected return <-10%

Macquarie - Canada

Outperform – return >5% in excess of benchmark return
 Neutral – return within 5% of benchmark return
 Underperform – return >5% below benchmark return

Macquarie - USA

Outperform (Buy) – return >5% in excess of Russell 3000 index return
 Neutral (Hold) – return within 5% of Russell 3000 index return
 Underperform (Sell) – return >5% below Russell 3000 index return

Volatility index definition*

This is calculated from the volatility of historical price movements.

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

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

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

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

Low – stock should be expected to move up or down at least 15–25% in a year.

* Applicable to Asia/Australian/NZ/Canada stocks only

Recommendations – 12 months

Note: Quant recommendations may differ from Fundamental Analyst recommendations

Financial definitions

All "Adjusted" data items have had the following adjustments made:

Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives & hedging, IFRS impairments & IFRS interest expense
 Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends & minority interests

EPS = adjusted net profit / efpowa*

ROA = adjusted ebit / average total assets

ROA Banks/Insurance = adjusted net profit / average total assets

ROE = adjusted net profit / average shareholders funds

Gross cashflow = adjusted net profit + depreciation

*equivalent fully paid ordinary weighted average number of shares

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

Recommendation proportions – For quarter ending 30 September 2015

	AU/NZ	Asia	RSA	USA	CA	EUR	
Outperform	48.87%	59.96%	35.63%	42.13%	59.44%	42.11%	(for US coverage by MCUSA, 3.54% of stocks followed are investment banking clients)
Neutral	33.44%	25.00%	39.08%	52.55%	37.06%	38.42%	(for US coverage by MCUSA, 5.05% of stocks followed are investment banking clients)
Underperform	17.68%	15.04%	25.29%	5.32%	3.50%	19.47%	(for US coverage by MCUSA, 0.51% of stocks followed are investment banking clients)

BISI IJ vs JSX, & rec history



(all figures in IDR currency unless noted)

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

Source: FactSet, Macquarie Research, November 2015

12-month target price methodology

BISI IJ: Rp2,000 based on a PER methodology

Company-specific disclosures:

Important disclosure information regarding the subject companies covered in this report is available at www.macquarie.com/disclosures.

Date	Stock Code (BBG code)	Recommendation	Target Price
10-Jun-2015	BISI IJ	Outperform	Rp2000

Target price risk disclosures:

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

Analyst certification:

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

General disclaimers:

Macquarie Securities (Australia) Ltd; Macquarie Capital (Europe) Ltd; Macquarie Capital Markets Canada Ltd; Macquarie Capital Markets North America Ltd; Macquarie Capital (USA) Inc; Macquarie Capital Securities Ltd and its Taiwan branch; Macquarie Capital Securities (Singapore) Pte Ltd; Macquarie Securities (NZ) Ltd; Macquarie First South Securities (Pty) Limited; Macquarie Capital Securities (India) Pvt Ltd; Macquarie Capital Securities (Malaysia) Sdn Bhd; Macquarie Securities Korea Limited and Macquarie Securities (Thailand) Ltd are not authorized deposit-taking institutions for the purposes of the Banking Act 1959 (Commonwealth of Australia), and their obligations do not represent deposits or other liabilities of Macquarie Bank Limited ABN 46 008 583 542 (MBL) or MGL. MBL does not guarantee or otherwise provide assurance in respect of the obligations of any of the above mentioned entities. MGL provides a guarantee to the Monetary Authority of Singapore in respect of the obligations and liabilities of Macquarie Capital

Securities (Singapore) Pte Ltd for up to SGD 35 million. This research has been prepared for the general use of the wholesale clients of the Macquarie Group and must not be copied, either in whole or in part, or distributed to any other person. If you are not the intended recipient you must not use or disclose the information in this research in any way. If you received it in error, please tell us immediately by return e-mail and delete the document. We do not guarantee the integrity of any e-mails or attached files and are not responsible for any changes made to them by any other person. MGL has established and implemented a conflicts policy at group level (which may be revised and updated from time to time) (the "Conflicts Policy") pursuant to regulatory requirements (including the FCA Rules) which sets out how we must seek to identify and manage all material conflicts of interest. Nothing in this research shall be construed as a solicitation to buy or sell any security or product, or to engage in or refrain from engaging in any transaction. In preparing this research, we did not take into account your investment objectives, financial situation or particular needs. Macquarie salespeople, traders and other professionals may provide oral or written market commentary or trading strategies to our clients that reflect opinions which are contrary to the opinions expressed in this research. Macquarie Research produces a variety of research products including, but not limited to, fundamental analysis, macro-economic analysis, quantitative analysis, and trade ideas. Recommendations contained in one type of research product may differ from recommendations contained in other types of research, whether as a result of differing time horizons, methodologies, or otherwise. Before making an investment decision on the basis of this research, you need to consider, with or without the assistance of an adviser, whether the advice is appropriate in light of your particular investment needs, objectives and financial circumstances. There are risks involved in securities trading. The price of securities can and does fluctuate, and an individual security may even become valueless. International investors are reminded of the additional risks inherent in international investments, such as currency fluctuations and international stock market or economic conditions, which may adversely affect the value of the investment. This research is based on information obtained from sources believed to be reliable but we do not make any representation or warranty that it is accurate, complete or up to date. We accept no obligation to correct or update the information or opinions in it. Opinions expressed are subject to change without notice. No member of the Macquarie Group accepts any liability whatsoever for any direct, indirect, consequential or other loss arising from any use of this research and/or further communication in relation to this research. Clients should contact analysts at, and execute transactions through, a Macquarie Group entity in their home jurisdiction unless governing law permits otherwise. The date and timestamp for above share price and market cap is the closed price of the price date. #CLOSE is the final price at which the security is traded in the relevant exchange on the date indicated.

Country-specific disclaimers:

Australia: In Australia, research is issued and distributed by Macquarie Securities (Australia) Ltd (AFSL No. 238947), a participating organisation of the Australian Securities Exchange. **New Zealand:** In New Zealand, research is issued and distributed by Macquarie Securities (NZ) Ltd, a NZX Firm. **Canada:** In Canada, research is prepared, approved and distributed by Macquarie Capital Markets Canada Ltd, a participating organisation of the Toronto Stock Exchange, TSX Venture Exchange & Montréal Exchange. Macquarie Capital Markets North America Ltd., which is a registered broker-dealer and member of FINRA, accepts responsibility for the contents of reports issued by Macquarie Capital Markets Canada Ltd in the United States and sent to US persons. Any US person wishing to effect transactions in the securities described in the reports issued by Macquarie Capital Markets Canada Ltd should do so with Macquarie Capital Markets North America Ltd. The Research Distribution Policy of Macquarie Capital Markets Canada Ltd is to allow all clients that are entitled to have equal access to our research. **United Kingdom:** In the United Kingdom, research is issued and distributed by Macquarie Capital (Europe) Ltd, which is authorised and regulated by the Financial Conduct Authority (No. 193905). **Germany:** In Germany, this research is issued and/or distributed by Macquarie Capital (Europe) Limited, Niederlassung Deutschland, which is authorised and regulated by the UK Financial Conduct Authority (No. 193905), and in Germany by BaFin. **France:** In France, research is issued and distributed by Macquarie Capital (Europe) Ltd, which is authorised and regulated in the United Kingdom by the Financial Conduct Authority (No. 193905). **Hong Kong & Mainland China:** In Hong Kong, research is issued and distributed by Macquarie Capital Securities Ltd, which is licensed and regulated by the Securities and Futures Commission. In Mainland China, Macquarie Securities (Australia) Limited Shanghai Representative Office only engages in non-business operational activities excluding issuing and distributing research. Only non-A share research is distributed into Mainland China by Macquarie Capital Securities Ltd. **Japan:** In Japan, research is issued and distributed by Macquarie Capital Securities (Japan) Limited, a member of the Tokyo Stock Exchange, Inc. and Osaka Exchange, Inc. (Financial Instruments Firm, Kanto Financial Bureau (kin-sho) No. 231, a member of Japan Securities Dealers Association). **India:** In India, research is issued and distributed by Macquarie Capital Securities (India) Pvt. Ltd. (CIN: U65920MH1995PTC090696), formerly known as Macquarie Capital (India) Pvt. Ltd., 92, Level 9, 2 North Avenue, Maker Maxity, Bandra Kurla Complex, Bandra (East), Mumbai – 400 051, India, which is a SEBI registered Research Analyst having registration no. INH000000545. **Malaysia:** In Malaysia, research is issued and distributed by Macquarie Capital Securities (Malaysia) Sdn. Bhd. (Company registration number: 463469-W) which is a Participating Organisation of Bursa Malaysia Berhad and a holder of Capital Markets Services License issued by the Securities Commission. **Taiwan:** In Taiwan, research is issued and distributed by Macquarie Capital Securities Ltd, Taiwan Branch, which is licensed and regulated by the Financial Supervisory Commission. No portion of the report may be reproduced or quoted by the press or any other person without authorisation from Macquarie. Nothing in this research shall be construed as a solicitation to buy or sell any security or product. Research Associate(s) in this report who are registered as Clerks only assist in the preparation of research and are not engaged in writing the research. **Thailand:** In Thailand, research is produced, issued and distributed by Macquarie Securities (Thailand) Ltd. Macquarie Securities (Thailand) Ltd. is a licensed securities company that is authorized by the Ministry of Finance, regulated by the Securities and Exchange Commission of Thailand and is an exchange member of the Stock Exchange of Thailand. The Thai Institute of Directors Association has disclosed the Corporate Governance Report of Thai Listed Companies made pursuant to the policy of the Securities and Exchange Commission of Thailand. Macquarie Securities (Thailand) Ltd does not endorse the result of the Corporate Governance Report of Thai Listed Companies but this Report can be accessed at: <http://www.thai-iod.com/en/publications.asp?type=4>. **South Korea:** In South Korea, unless otherwise stated, research is prepared, issued and distributed by Macquarie Securities Korea Limited, which is regulated by the Financial Supervisory Services. Information on analysts in MSKL is disclosed at <http://dis.kofia.or.kr/websquare/index.jsp?w2xPath=/wq/fundMgr/DISFundMgrAnalystStut.xml&divisionId=MDIS03002001000000&serviceld=SDIS03002001000>. **South Africa:** In South Africa, research is issued and distributed by Macquarie First South Securities (Pty) Limited, a member of the JSE Limited. **Singapore:** In Singapore, research is issued and distributed by Macquarie Capital Securities (Singapore) Pte Ltd (Company Registration Number: 198702912C), a Capital Markets Services license holder under the Securities and Futures Act to deal in securities and provide custodial services in Singapore. Pursuant to the Financial Advisers (Amendment) Regulations 2005, Macquarie Capital Securities (Singapore) Pte Ltd is exempt from complying with sections 25, 27 and 36 of the Financial Advisers Act. All Singapore-based recipients of research produced by Macquarie Capital (Europe) Limited, Macquarie Capital Markets Canada Ltd, Macquarie First South Securities (Pty) Limited and Macquarie Capital (USA) Inc. represent and warrant that they are institutional investors as defined in the Securities and Futures Act. **United States:** In the United States, research is issued and distributed by Macquarie Capital (USA) Inc., which is a registered broker-dealer and member of FINRA. Macquarie Capital (USA) Inc. accepts responsibility for the content of each research report prepared by one of its non-US affiliates when the research report is distributed in the United States by Macquarie Capital (USA) Inc. Macquarie Capital (USA) Inc.'s affiliate's analysts are not registered as research analysts with FINRA, may not be associated persons of Macquarie Capital (USA) Inc., and therefore may not be subject to FINRA rule restrictions on communications with a subject company, public appearances, and trading securities held by a research analyst account. Information regarding futures is provided for reference purposes only and is not a solicitation for purchases or sales of futures. Any persons receiving this report directly from Macquarie Capital (USA) Inc. and wishing to effect a transaction in any security described herein should do so with Macquarie Capital (USA) Inc. Important disclosure information regarding the subject companies covered in this report is available at www.macquarie.com/research/disclosures, or contact your registered representative at 1-888-MAC-STOCK, or write to the Supervisory Analysts, Research Department, Macquarie Securities, 125 W. 55th Street, New York, NY 10019.

© Macquarie Group

Auckland Tel: (649) 377 6433	Bangkok Tel: (662) 694 7999	Calgary Tel: (1 403) 294 9541	Denver Tel: (303) 952 2800	Frankfurt Tel: (069) 509 578 000	Geneva Tel: (41) 22 818 7777	Hong Kong Tel: (852) 2823 3588
Jakarta Tel: (62 21) 515 1818	Johannesburg Tel: (2711) 583 2000	Kuala Lumpur Tel: (60 3) 2059 8833	London Tel: (44 20) 3037 2000	Manila Tel: (63 2) 857 0888	Melbourne Tel: (613) 9635 8139	Mumbai Tel: (91 22) 6653 3000
Munich Tel: (089) 2444 31800	New York Tel: (1 212) 231 2500	Paris Tel: (33 1) 7842 3823	Perth Tel: (618) 9224 0888	Seoul Tel: (82 2) 3705 8500	Shanghai Tel: (86 21) 6841 3355	Singapore Tel: (65) 6601 1111
Sydney Tel: (612) 8232 9555	Taipei Tel: (886 2) 2734 7500	Tokyo Tel: (81 3) 3512 7900	Toronto Tel: (1 416) 848 3500	Vancouver Tel: (1 604) 605 3944		

Available to clients on the world wide web at www.macquarieresearch.com and through Thomson Financial, FactSet, Reuters, Bloomberg, and CapitalIQ.



Asia Research

Head of Equity Research

Peter Redhead (Global – Head)	(852) 3922 4836
Matt Nacard (Asia – Head)	(852) 3922 1362

Automobiles/Auto Parts

Janet Lewis (China)	(852) 3922 5417
Zhixuan Lin (China)	(8621) 2412 9006
Amit Mishra (India)	(9122) 6720 4084
Lyall Taylor (Indonesia)	(6221) 2598 8489
Takuo Katayama (Japan)	(813) 3512 7856
James Hong (Korea)	(822) 3705 8661

Banks and Non-Bank Financials

Matthew Smith (China)	(8621) 2412 9022
Suresh Ganapathy (India)	(9122) 6720 4078
Lyall Taylor (Indonesia)	(6221) 2598 8489
Alastair Macdonald (Japan)	(813) 3512 7476
Chan Hwang (Korea)	(822) 3705 8643
Gilbert Lopez (Philippines)	(632) 857 0892
Thomas Stoegner (Singapore)	(65) 6601 0854
Dexter Hsu (Taiwan)	(8862) 2734 7530
Passakorn Linmaneechote (Thailand)	(662) 694 7728

Conglomerates

Gilbert Lopez (Philippines)	(632) 857 0892
-----------------------------	----------------

Consumer and Gaming

Linda Huang (China, Hong Kong)	(852) 3922 4068
Kai Tan (China)	(852) 3922 3720
Zibo Chen (Hong Kong)	(852) 3922 1130
Amit Mishra (India)	(9122) 6720 4084
Fransisca Widjaja (Indonesia)	(6221) 2598 8368
Hendy Soegiarto (Indonesia)	(6221) 2598 8369
Toby Williams (Japan)	(813) 3512 7392
HongSuk Na (Korea)	(822) 3705 8678
Karisa Magpayo (Philippines)	(632) 857 0899
Somesh Agarwal (Singapore)	(65) 6601 0840
Best Waiyanont (Thailand)	(662) 694 7993

Emerging Leaders

Jake Lynch (China, Asia)	(8621) 2412 9007
Neel Sinha (ASEAN)	(65) 6601 0562
Timothy Lam (Hong Kong)	(852) 3922 1086
Kwang Cho (Korea)	(822) 3705 4953

Industrials

Janet Lewis (Asia)	(852) 3922 5417
Patrick Dai (China)	(8621) 2412 9082
Inderjeetsingh Bhatia (India)	(9122) 6720 4087
Andy Lesmana (Indonesia)	(6221) 2598 8398
Lyall Taylor (Indonesia)	(6221) 2598 8489
Kenjin Hotta (Japan)	(813) 3512 7871
James Hong (Korea)	(822) 3705 8661
Somesh Agarwal (Singapore)	(65) 6601 0840

Insurance

Scott Russell (Asia, Japan)	(852) 3922 3567
Leo Nakada (Japan)	(813) 3512 6050
Chan Hwang (Korea)	(822) 3705 8643

Asia Sales

Regional Heads of Sales

Miki Edelman (Asia)	(813) 3512 7857
Jeff Evans (Boston)	(1 617) 598 2508
Jeffrey Shiu (China & Hong Kong)	(852) 3922 2061
Thomas Renz (Geneva)	(41) 22 818 7712
Bharat Rawla (India)	(9122) 6720 4100
Riaz Hyder (Indonesia)	(6221) 2598 8486
Mark Chadwick (Japan)	(813) 3512 7827
John Jay Lee (Korea)	(822) 3705 9988
Nik Hadi (Malaysia)	(603) 2059 8888
Eric Roles (New York)	(1 212) 231 2559
Gino C Rojas (Philippines)	(632) 857 0861

Software and Internet

Wendy Huang (Asia)	(852) 3922 3378
David Gibson (Asia)	(813) 3512 7880
Hillman Chan (China, Hong Kong)	(852) 3922 3716
Nitin Mohta (India)	(9122) 6720 4090
Nathan Ramler (Japan)	(813) 3512 7875
Prem Jearajasingam (Malaysia)	(603) 2059 8989

Oil, Gas and Petrochemicals

James Hubbard (Asia)	(852) 3922 1226
Aditya Suresh (Asia)	(852) 3922 1265
Abhishek Agarwal (India)	(9122) 6720 4079
Polina Diyachkina (Japan)	(813) 3512 7886
Anna Park (Korea)	(822) 3705 8669
Trevor Buchinski (Thailand)	(662) 694 7829

Pharmaceuticals and Healthcare

Abhishek Singhal (India)	(9122) 6720 4086
--------------------------	------------------

Property

Tuck Yin Soong (Asia, Singapore)	(65) 6601 0838
David Ng (China, Hong Kong)	(852) 3922 1291
Raymond Liu (China, Hong Kong)	(852) 3922 3629
Kai Tan (China)	(852) 3922 3720
Abhishek Bhandari (India)	(9122) 6720 4088
Andy Lesmana (Indonesia)	(6221) 2598 8398
William Montgomery (Japan)	(813) 3512 7864
Sam Chan (Singapore)	(65) 6601 0835
Corinne Jian (Taiwan)	(8862) 2734 7522
Patti Tomaitrichit (Thailand)	(662) 694 7727

Resources / Metals and Mining

Rakesh Arora (India)	(9122) 6720 4093
Stanley Liong (Indonesia)	(6221) 2598 8381
Polina Diyachkina (Japan)	(813) 3512 7886
Anna Park (Korea)	(822) 3705 8669

Technology

Damian Thong (Asia, Japan)	(813) 3512 7877
Jason Sun (China, Hong Kong)	(852) 3922 4674
Nitin Mohta (India)	(9122) 6720 4090
David Gibson (Japan)	(813) 3512 7880
George Chang (Japan)	(813) 3512 7854
Daniel Kim (Korea)	(822) 3705 8641
Soyun Shin (Korea)	(822) 3705 8659
Tammy Lai (Taiwan)	(8862) 2734 7525

Telecoms

Nathan Ramler (Asia, Japan)	(813) 3512 7875
Danny Chu (China, Hong Kong, Taiwan)	(852) 3922 4762
David Lee (Korea)	(822) 3705 8686
Prem Jearajasingam (Malaysia, Singapore)	(603) 2059 8989

Transport & Infrastructure

Janet Lewis (Asia)	(852) 3922 5417
Andrew Lee (Asia)	(852) 3922 1167
Azita Nazrene (ASEAN)	(603) 2059 8980
Corinne Jian (Taiwan)	(8862) 2734 7522

Utilities & Renewables

Gary Chiu (Asia)	(852) 3922 1435
Alan Hon (Hong Kong)	(852) 3922 3589
Inderjeetsingh Bhatia (India)	(9122) 6720 4087
Prem Jearajasingam (Malaysia)	(603) 2059 8989
Karisa Magpayo (Philippines)	(632) 857 0899

Commodities

Colin Hamilton (Global)	(4420) 3037 4061
Jim Lennon	(4420) 3037 4271
Matthew Turner	(4420) 3037 4340
Rakesh Arora	(9122) 6720 4093

Economics

Peter Eadon-Clarke (Global)	(813) 3512 7850
PK Basu (ASEAN)	(603) 2059 8993
Larry Hu (China, Hong Kong)	(852) 3922 3778
Tanvee Gupta Jain (India)	(9122) 6720 4355

Quantitative / CPG

Gurvinder Brar (Global)	(4420) 3037 4036
Woei Chan (Asia)	(852) 3922 1421
Anthony Ng (Asia)	(852) 3922 1561
Jason Zhang (Asia)	(852) 3922 1168

Strategy/Country

Viktor Shvets (Asia)	(852) 3922 3883
Chetan Seth (Asia)	(852) 3922 4769
Peter Eadon-Clarke (Japan)	(813) 3512 7850
David Ng (China, Hong Kong)	(852) 3922 1291
Erwin Sanft (China, Hong Kong)	(852) 3922 1516
Rakesh Arora (India)	(9122) 6720 4093
Lyall Taylor (Indonesia)	(6221) 2598 8489
Chan Hwang (Korea)	(822) 3705 8643
PK Basu (Malaysia)	(603) 2059 8993
Gilbert Lopez (Philippines)	(632) 857 0892
Conrad Werner (Singapore)	(65) 6601 0182
Jeffrey Ohlweiler (Taiwan)	(8862) 2734 7512

Find our research at

Macquarie:	www.macquarie.com.au/research
Thomson:	www.thomson.com/financial
Reuters:	www.knowledge.reuters.com
Bloomberg:	MAC GO
Factset:	http://www.factset.com/home.aspx
CapitalIQ	www.capitaliq.com
Email macresearch@macquarie.com for access	

Regional Heads of Sales cont'd

Paul Colaco (San Francisco)	(1 415) 762 5003
Ruben Boopalan (Singapore)	(603) 2059 8888
Erica Wang (Taiwan)	(8862) 2734 7586
Angus Kent (Thailand)	(662) 694 7601
Ben Musgrave (UK/Europe)	(44) 20 3037 4882
Julien Roux (UK/Europe)	(44) 20 3037 4867

Sales Trading

Adam Zaki (Asia)	(852) 3922 2002
Stanley Dunda (Indonesia)	(6221) 515 1555

Sales Trading cont'd

Suhaida Samsudin (Malaysia)	(603) 2059 8888
Michael Santos (Philippines)	(632) 857 0813
Chris Reale (New York)	(1 212) 231 2555
Marc Rosa (New York)	(1 212) 231 2555
Justin Morrison (Singapore)	(65) 6601 0288
Isaac Huang (Taiwan)	(8862) 2734 7582
Dominic Shore (Thailand)	(662) 694 7707
Mike Keen (UK/Europe)	(44) 20 3037 4905