

Equities

15 November 2011 | 10 pages

BGR Energy Systems (BGRE.BO)

Downgrade to Sell: Significant Balance Sheet Deterioration

- Company Update
- Rating Change
- Target Price Change
- Estimate Change

- **Downgrade to Sell (3H)** — Revise down our EPS for FY12-14E by 17-34% to factor in (1) 8-14% lower sales and (2) higher interest costs. Our estimates are 27-35% below consensus expectations. We cut our target price to Rs241 (Rs350 earlier) to factor in our EPS revision and roll forward of target P/E multiple of 8x to Mar13E (from Dec12E).
- **2Q12 PAT down 34% YoY** — Despite a 267bps margin expansion, BGRL's 2Q12 PAT was down 34% YoY at Rs514mn, which was 29% below CIRA at Rs726mn on account of (1) 32% YoY decline in sales and (2) 118% YoY increase in interest costs.
- **Significant balance sheet deterioration** — BGRL seems to be facing severe working capital (WC) stress with debtor days ballooning up to 478 days of sales end 2Q12 from 258 days end 2Q11. WC intensity (NCA – Cash days of sales) is up to 289 days end 2Q12 from 119 days end 2Q11. Cash flow from operations (CFO) was -9.1bn in 1HFY12 vs. -5.4bn in 1HFY11. The debt equity ratio has ballooned to 2.2x end 2Q12 from 1.7x from end 2Q11. With more equity commitments for the BTG JV with Hitachi over the next 12-18 months, we expect the balance sheet to deteriorate even further.
- **Order drought adds to the pain** — After winning a mere Rs29.4bn of orders in FY11, BGRL has managed to cobble together Rs10.1bn of orders in 1H12. As of now the company has visibility for an aggressive bid and won Rs29bn order for 4X800MW turbines from NTPC. The RRVUNL Rs60bn+ EPC order for 2X660 is long delayed. Even if orders rebound, we expect margins to decline structurally ahead and BGRL, with its weak balance sheet, could find the going tough.
- **BGR's NTPC tender win is aggressive** — BGR's L1 raw bid @ Rs8.8mn/MW is aggressive and well below past bids in the Indian market by domestic equipment suppliers and the industry benchmark (in the new competitive scenario). That management claims they have received calls from other utilities if they could supply turbines at these prices post the tender could be an indication of the same.

Sell/High Risk		3H
<i>from Neutral/High Risk</i>		
Price (14 Nov 11)		Rs297.05
Target price		Rs241.00
<i>from Rs350.00</i>		
Expected share price return		-18.9%
Expected dividend yield		2.4%
Expected total return		-16.5%
Market Cap		Rs21,436M
		US\$429M

Price Performance (RIC: BGRE.BO, BB: BGRL IN)



Statistical Abstract

Year to	Net Profit	Diluted EPS	EPS growth	P/E	P/B	ROE	Yield
31 Mar	(RsM)	(Rs)	(%)	(x)	(x)	(%)	(%)
2010A	2,013	27.96	74.4	10.6	3.0	31.7	2.4
2011A	3,234	44.82	60.3	6.6	2.3	39.0	3.4
2012E	2,403	33.30	-25.7	8.9	1.9	23.0	2.4
2013E	2,175	30.14	-9.5	9.9	1.7	17.9	2.4
2014E	2,180	30.21	0.3	9.8	1.5	15.9	2.4

Source: Powered by dataCentral

Venkatesh Balasubramaniam

 +91-22-6631-9864
 venkatesh.balasubramaniam@citi.com

 Atul Tiwari, CFA
 atul.tiwari@citi.com

 Deepal Delivala
 deepal.delivala@citi.com

 Rishi V Iyer
 rishi.iyer@citi.com

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

Citi Investment Research & Analysis is a division of Citigroup Global Markets Inc. (the "Firm"), which does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

Fiscal year end 31-Mar	2010	2011	2012E	2013E	2014E
Valuation Ratios					
P/E adjusted (x)	10.6	6.6	8.9	9.9	9.8
EV/EBITDA adjusted (x)	6.7	4.8	7.2	10.6	14.0
P/BV (x)	3.0	2.3	1.9	1.7	1.5
Dividend yield (%)	2.4	3.4	2.4	2.4	2.4
Per Share Data (Rs)					
EPS adjusted	27.96	44.82	33.30	30.14	30.21
EPS reported	27.96	44.82	33.30	30.14	30.21
BVPS	98.09	131.93	157.06	179.04	201.09
DPS	7.00	10.01	7.00	7.00	7.00
Profit & Loss (RsM)					
Net sales	30,734	47,498	35,042	43,798	52,553
Operating expenses	-27,395	-42,309	-30,444	-38,902	-47,232
EBIT	3,339	5,190	4,598	4,895	5,321
Net interest expense	-538	-605	-1,177	-1,811	-2,229
Non-operating/exceptionals	250	223	128	128	128
Pre-tax profit	3,051	4,808	3,549	3,212	3,221
Tax	-1,037	-1,577	-1,146	-1,038	-1,041
Extraord./Min.Int./Pref.div.	-1	4	0	0	0
Reported net income	2,013	3,234	2,403	2,175	2,180
Adjusted earnings	2,013	3,234	2,403	2,175	2,180
Adjusted EBITDA	3,442	5,363	4,801	5,146	5,611
Growth Rates (%)					
Sales	59.2	54.5	-26.2	25.0	20.0
EBIT adjusted	65.8	55.4	-11.4	6.5	8.7
EBITDA adjusted	64.8	55.8	-10.5	7.2	9.1
EPS adjusted	74.4	60.3	-25.7	-9.5	0.3
Cash Flow (RsM)					
Operating cash flow	3,101	-2,130	-7,228	-4,139	-6,463
Depreciation/amortization	103	173	203	250	290
Net working capital	180	-7,060	-10,064	-6,772	-9,142
Investing cash flow	-629	-1,455	-4,718	-23,316	-16,175
Capital expenditure	-629	-1,455	-4,718	-23,316	-16,175
Acquisitions/disposals	0	0	0	0	0
Financing cash flow	396	5,012	10,708	21,922	22,137
Borrowings	985	5,299	10,553	21,394	21,480
Dividends paid	-590	-842	-589	-589	-589
Change in cash	2,868	1,427	-1,238	-5,533	-501
Balance Sheet (RsM)					
Total assets	38,006	54,006	61,997	89,535	114,327
Cash & cash equivalent	9,019	10,449	9,211	3,678	3,177
Accounts receivable	19,803	31,580	35,024	43,776	52,527
Net fixed assets	1,557	2,840	7,354	30,420	46,305
Total liabilities	30,914	43,967	49,400	74,234	96,189
Accounts payable	11,028	16,274	11,378	14,580	17,710
Total Debt	8,075	13,373	23,926	45,320	66,800
Shareholders' funds	7,092	10,039	12,597	15,300	18,138
Profitability/Solvency Ratios (%)					
EBITDA margin adjusted	11.2	11.3	13.7	11.7	10.7
ROE adjusted	31.7	39.0	23.0	17.9	15.9
ROIC adjusted	25.5	24.4	13.0	7.9	5.8
Net debt to equity	-13.3	29.1	116.8	272.2	350.8
Total debt to capital	53.2	57.1	65.5	74.8	78.6

For further data queries on Citi's full coverage universe please contact CIRA Data Services Asia Pacific at CIRADataServicesAsiaPacific@citi.com or +852-2501-2791



Figure 1. BGRL 2QFY12 Results Review

Year End Mar31 (Rsmn)	Q111	Q112	Q211	Q212	Q212E
Backlog	93,971	75,000	105,000	72,564	na
Total Sales	9,054	7,312	11,337	7,706	10,203
% growth YoY	191.1%	-19.2%	143.3%	-32.0%	-10.0%
EBITDA	1,025	931	1,304	1,093	1,296
EBITDA margin%	11.3%	12.7%	11.5%	14.2%	12.7%
Change bps	(225)	141	(80)	267	119
Depreciation	(31)	(37)	(33)	(40)	(39)
EBIT	994	894	1,272	1,053	1,257
EBIT margin%	11.0%	12.2%	11.2%	13.7%	12.3%
Financial Expenses	(116)	(180)	(138)	(302)	(210)
Other Income	26	0	26	0	0
Other Operating Income	12	30	19	9	37
PBT	917	743	1,178	761	1,084
Tax Expense	(312)	(241)	(400)	(247)	(358)
Tax Rate %	34.0%	32.4%	34.0%	32.5%	33.0%
PAT	605	503	778	514	726

Source: Company and Citi Investment Research and Analysis estimates

Figure 2. BGRL – Deteriorating Balance Sheet

Year End Mar31 (Rsmn)	1HFY10	FY10	1HFY11	FY11	1HFY12
Debtor Days of Sales	300	235	258	243	478
(NCA – Cash) Days of Sales	112	73	119	103	289
D/E	1.4	1.3	1.7	1.4	2.2
Net Debt/ Equity	(0.2)	(0.1)	0.7	0.4	1.3

Source: Citi Investment Research and Analysis

Figure 3. BGRL – Cash Flow From Operations

Year End Mar31 (Rsmn)	1HFY11	1HFY12
PAT	1,383	1,016
Depreciation	64	77
Change in DTL	294	187
Change in WC	(7,141)	(10,353)
CFO	(5,400)	(9,073)

Source: Citi Investment Research and Analysis

Figure 4. BGRL EPS – CIRA vs. Consensus

	FY12E	FY13E	FY14E
CIRA	33.30	30.14	30.21
Consensus	45.60	46.70	44.40
Change	-27%	-35%	-32%

Source: Bloomberg and CIRA estimates

Figure 5. BGRL Earnings Revision

Year End Mar31 (Rsmn)	FY12E	FY13E	FY14E
Sales			
Old	41,915	52,389	62,862
New	35,042	43,798	52,553
Change	-16.4%	-16.4%	-16.4%
EBITDA			
Old	5,196	5,981	6,511
New	4,801	5,146	5,611
Change	-7.6%	-14.0%	-13.8%
Margin %			
Old	12.4%	11.4%	10.4%
New	13.7%	11.7%	10.7%
Change	130	33	32
PAT			
Old	2,897	3,168	3,297
New	2,403	2,175	2,180
Change	-17.1%	-31.4%	-33.9%
EPS			
Old	40.15	43.90	45.68
New	33.30	30.14	30.21
Change	-17.1%	-31.4%	-33.9%

Source: Citi Investment Research and Analysis estimates

BGR Energy Systems

Company description

BGRL was incorporated in 1985 as a joint venture (JV) between GEA Energietechnik GmbH, Germany (40% stake) and Mr. B.G. Raghupathy (60% stake). It was initially in the business of supplying condensate tube-cleaning systems and debris filters, with a turnover of ~Rs100m. In 1993, GEA's stake was bought out by B.G. Raghupathy. Around FY00, BGR decided to approach clients with an integrated power equipment offering, rather than multiple divisions of BGRL approaching the same set of clients. BGRL then also tied up with BHEL to provide BOP solutions to clients. It won BOP orders for 95MW Valuthur CCPP from TNEB and for 23MW captive plant from Aditya Cements in Rajasthan. In FY01, BGRL won the EPC contract from Aban for a 120MW gas power plant in TN. Following an IPO, BGRL listed on the stock exchanges on January 3, 2008. The company won its first 600MW EPC contract from TNEB in FY09. BGRL has also announced collaboration with Hitachi Power Europe GmbH, Germany (660MW, 800MW, 1,000MW and 1,100MW) for supercritical boilers and with Hitachi, Japan (660MW, 700MW, 800MW and 1,000MW) for supercritical turbines and generators.

Investment strategy

We rate BGR Energy Sell/High Risk. As India's Infrastructure and Industrial capex decelerated from FY09 onwards, the overall opportunity pie growth has not kept pace with 1) the rise of multiple new players across subsectors; 2) influx of Koreans and Chinese in India; and 3) companies bidding and diversifying across subsectors. Over the last year problems have compounded in the power EPC, BTG and BOP markets on account of: 1) Coal India's production cuts putting the power sector's growth in jeopardy; 2) Deteriorating SEB finances leading to question marks about payment security; and 3) Since SEB finances are deteriorating, it is not picking up enough power and resorting to load shedding. This has led to a correction in merchant prices. Even if orders rebound we expect margins to decline structurally going forward and BGRL with its weak balance sheet could find the going tough.

Valuation

Our Rs241 target price is based on a target P/E multiple of 8x Mar13E EPS (BGRL has traded in a P/E multiple band of 4x to 58x post listing) which is at a discount to the historical average P/E multiple of 14x given (1) structurally declining RoEs from 39% in FY11 to 16% by FY14E (2) EPS decline of 12% over FY11-14E v/s 55% growth over FY08-11 and (3) similar to FY11 we expect the operating cash flows to be negative over the next 3 years.

Risks

We rate BGR Energy High Risk due to increasing competitive intensity in the industry and concerns about future order inflows, key downside risks to our target price. Key upside risks to our target price include: (1) Better-than-expected order inflows; (2) Better-than-expected margins; (3) Better-than-expected execution.

Appendix A-1

Analyst Certification

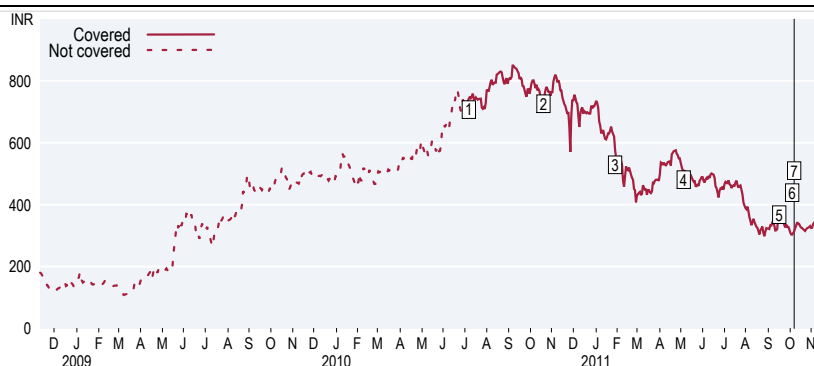
The research analyst(s) primarily responsible for the preparation and content of this research report are named in bold text in the author block at the front of the product except for those sections where an analyst's name appears in bold alongside content which is attributable to that analyst. Each of these analyst(s) certify, with respect to the section(s) of the report for which they are responsible, that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc and its affiliates. No part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst in this report.

IMPORTANT DISCLOSURES

BGR Energy Systems (BGR.E.BO)

Ratings and Target Price History Fundamental Research

Analyst: Venkatesh Balasubramaniam
Covered since July 7 2010



	Date	Rating	Target Price	Closing Price
1	7-Jul-10	*1M	*884.00	742.80
2	20-Oct-10	1M	*934.00	731.70
3	28-Jan-11	1M	*727.00	576.55

* Indicates change

	Date	Rating	Target Price	Closing Price
4	5-May-11	*3M	*470.00	507.20
5	16-Sep-11	3M	*387.00	362.00
6	5-Oct-11	*2H	*350.00	303.40

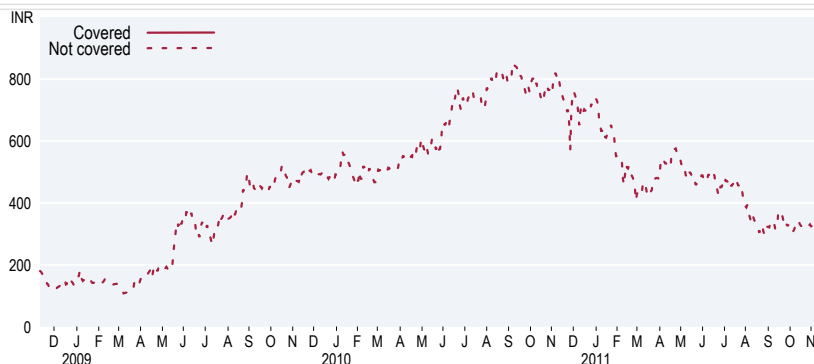
	Date	Rating	Target Price	Closing Price
7	7-Oct-11	Stock rating system changed		

Rating/target price changes above reflect Eastern Standard Time

BGR Energy Systems (BGR.E.BO)

Ratings and Target Price History Best Ideas Research Relative Call (3 Month)

Analyst: Venkatesh Balasubramaniam
Covered since July 7 2010



* Indicates change

Rating/target price changes above reflect Eastern Standard Time

Citigroup Global Markets Inc. or its affiliates beneficially owns 1% or more of any class of common equity securities of BGR Energy Systems. This position reflects information available as of the prior business day.

Analysts' compensation is determined based upon activities and services intended to benefit the investor clients of Citigroup Global Markets Inc. and its affiliates ("the Firm"). Like all Firm employees, analysts receive compensation that is impacted by overall firm profitability which includes investment banking revenues.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Investment Research & Analysis product ("the Product"), please contact Citi Investment Research & Analysis, 388 Greenwich Street, 28th Floor, New York, NY, 10013, Attention: Legal/Compliance [E6WYB6412478]. In addition, the same important disclosures, with the exception of the Valuation and Risk assessments and historical disclosures, are contained on the Firm's disclosure website at www.citigroupgeo.com. Valuation and Risk assessments can be found in the text of the most recent research note/report regarding the subject company. Historical disclosures (for up to the past three years) will be provided upon request.

Citi Investment Research & Analysis Ratings Distribution

Data current as of 9 Oct 2011

Citi Investment Research & Analysis Global Fundamental Coverage

12 Month Rating			Relative Rating		
Buy	Hold	Sell	Buy	Hold	Sell
59%	34%	7%	10%	79%	10%

% of companies in each rating category that are investment banking clients 45% 42% 37% 50% 43% 46%

Guide to Citi Investment Research & Analysis (CIRA) Fundamental Research Investment Ratings:

CIRA's stock recommendations include an investment rating and an optional risk rating to highlight high risk stocks.

Risk rating takes into account both price volatility and fundamental criteria. Stocks will either have no risk rating or a High risk rating assigned.

Investment Ratings: CIRA's investment ratings are Buy, Neutral and Sell. Our ratings are a function of analyst expectations of expected total return ("ETR") and risk. ETR is the sum of the forecast price appreciation (or depreciation) plus the dividend yield for a stock within the next 12 months. The Investment rating definitions are: Buy (1) ETR of 15% or more or 25% or more for High risk stocks; and Sell (3) for negative ETR. Any covered stock not assigned a Buy or a Sell is a Neutral (2). For stocks rated Neutral (2), if an analyst believes that there are insufficient valuation drivers and/or investment catalysts to derive a positive or negative investment view, they may elect with the approval of CIRA management not to assign a target price and, thus, not derive an ETR. Analysts may place covered stocks "Under Review" in response to exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting the company and / or trading in the company's securities (e.g. trading suspension). As soon as practically possible, the analyst will publish a note re-establishing a rating and investment thesis. To satisfy regulatory requirements, we correspond Under Review and Neutral to Hold in our ratings distribution table for our 12-month fundamental rating system. However, we reiterate that we do not consider Under Review to be a recommendation.

Relative three-month ratings: CIRA may also assign a three-month relative call (or rating) to a stock to highlight expected out-performance (most preferred) or under-performance (least preferred) versus the geographic and industry sector over a 3 month period. The relative call may highlight a specific near-term catalyst or event impacting the company or the market that is anticipated to have a short-term price impact on the equity securities of the company. Absent any specific catalyst the analyst(s) will indicate the most and least preferred stocks in the universe of stocks under consideration, explaining the basis for this short-term view. This three-month view may be different from and does not affect a stock's fundamental equity rating, which reflects a longer-term total absolute return expectation. For purposes of NASD/NYSE ratings-distribution-disclosure rules, most preferred calls correspond to a buy recommendation and least preferred calls correspond to a sell recommendation. Any stock not assigned to a most preferred or least preferred call is considered non-relative-rated (NRR). For purposes of NASD/NYSE ratings-distribution-disclosure rules we correspond NRR to Hold in our ratings distribution table for our 3-month relative rating system. However, we reiterate that we do not consider NRR to be a recommendation.

Prior to October 8, 2011, the firm's stock recommendation system included a risk rating and an investment rating. **Risk ratings**, which took into account both price volatility and fundamental criteria, were: Low (L), Medium (M), High (H), and Speculative (S). **Investment Ratings** of Buy, Hold and Sell were a function of CIRA's expectation of total return (forecast price appreciation and dividend yield within the next 12 months) and risk rating. Additionally, analysts could have placed covered stocks "Under Review" in response to exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting the company and/or trading in the company's securities (e.g. trading suspension). Stocks placed "Under Review" were monitored daily by management and as practically possible, the analyst published a note re-establishing a rating and investment thesis. For securities in developed markets (US, UK, Europe, Japan, and Australia/New Zealand), investment ratings were: Buy (1) (expected total return of 10% or more for Low-Risk stocks, 15% or more for Medium-Risk stocks, 20% or more for High-Risk stocks, and 35% or more for Speculative stocks); Hold (2) (0%-10% for Low-Risk stocks, 0%-15% for Medium-Risk stocks, 0%-20% for High-Risk stocks, and 0%-35% for Speculative stocks); and Sell (3) (negative total return). For securities in emerging markets (Asia Pacific, Emerging Europe/Middle East/Africa, and Latin America), investment ratings were: Buy (1) (expected total return of 15% or more for Low-Risk stocks, 20% or more for Medium-Risk stocks, 30% or more for High-Risk stocks, and 40% or more for Speculative stocks); Hold (2) (5%-15% for Low-Risk stocks, 10%-20% for Medium-Risk stocks, 15%-30% for High-Risk stocks, and 20%-40% for Speculative stocks); and Sell (3) (5% or less for Low-Risk stocks, 10% or less for Medium-Risk stocks, 15% or less for High-Risk stocks, and 20% or less for Speculative stocks).

Investment ratings are determined by the ranges described above at the time of initiation of coverage, a change in investment and/or risk rating, or a change in target price (subject to limited management discretion). At other times, the expected total returns may fall outside of these ranges because of market price movements and/or other short-term volatility or trading patterns. Such interim deviations from specified ranges will be permitted but will become subject to review by Research Management. Your decision to buy or sell a security should be based upon your personal investment objectives and should be made only after evaluating the stock's expected performance and risk.

NON-US RESEARCH ANALYST DISCLOSURES

Non-US research analysts who have prepared this report (i.e., all research analysts listed below other than those identified as employed by Citigroup Global Markets Inc.) are not registered/qualified as research analysts with FINRA. Such research analysts may not be associated persons of the member organization and therefore may not be subject to the NYSE Rule 472 and NASD Rule 2711 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account. The legal entities employing the authors of this report are listed below:

Citigroup Global Markets India Private Limited

Venkatesh Balasubramaniam; Atul Tiwari, CFA; Deepal Delivala; Rishi V Iyer

OTHER DISCLOSURES

The subject company's share price set out on the front page of this Product is quoted as at 14 November 2011 04:00 PM on the issuer's primary market.

Citigroup Global Markets Inc. or its affiliates beneficially owns 2% or more of any class of common equity securities of BGR Energy Systems.

For securities recommended in the Product in which the Firm is not a market maker, the Firm is a liquidity provider in the issuers' financial instruments and may act as principal in connection with such transactions. The Firm is a regular issuer of traded financial instruments linked to securities that may have been recommended in the Product. The Firm regularly trades in the securities of the issuer(s) discussed in the Product. The Firm may engage in securities transactions in a manner inconsistent with the Product and, with respect to securities covered by the Product, will buy or sell from customers on a principal basis.

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy

prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the Product has had discussions with the subject company to ensure factual accuracy prior to publication. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Citi Investment Research & Analysis (CIRA) does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of CIRA to provide research coverage of the/those issuer(s) mentioned therein, including in response to news affecting this issuer, subject to applicable quiet periods and capacity constraints. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security. Any decision to purchase securities mentioned in the Product must take into account existing public information on such security or any registered prospectus.

Investing in non-U.S. securities, including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of the U.S. Securities and Exchange Commission. There may be limited information available on foreign securities. Foreign companies are generally not subject to uniform audit and reporting standards, practices and requirements comparable to those in the U.S. Securities of some foreign companies may be less liquid and their prices more volatile than securities of comparable U.S. companies. In addition, exchange rate movements may have an adverse effect on the value of an investment in a foreign stock and its corresponding dividend payment for U.S. investors. Net dividends to ADR investors are estimated, using withholding tax rates conventions, deemed accurate, but investors are urged to consult their tax advisor for exact dividend computations. Investors who have received the Product from the Firm may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in the Product from the Firm. Please ask your Financial Consultant for additional details. Citigroup Global Markets Inc. takes responsibility for the Product in the United States. Any orders by US investors resulting from the information contained in the Product may be placed only through Citigroup Global Markets Inc.

Important Disclosures for Morgan Stanley Smith Barney LLC Customers: Morgan Stanley & Co. LLC (Morgan Stanley) research reports may be available about the companies that are the subject of this Citi Investment Research & Analysis (CIRA) research report. Ask your Financial Advisor or use smithbarney.com to view any available Morgan Stanley research reports in addition to CIRA research reports.

Important disclosure regarding the relationship between the companies that are the subject of this CIRA research report and Morgan Stanley Smith Barney LLC and its affiliates are available at the Morgan Stanley Smith Barney disclosure website at www.morganstanleysmithbarney.com/researchdisclosures. For Morgan Stanley and Citigroup Global Markets, Inc. specific disclosures, you may refer to www.morganstanley.com/researchdisclosures and https://www.citigroupgeo.com/geopublic/Disclosures/index_a.html.

This CIRA research report has been reviewed and approved on behalf of Morgan Stanley Smith Barney LLC. This review and approval was conducted by the same person who reviewed this research report on behalf of CIRA. This could create a conflict of interest.

The Citigroup legal entity that takes responsibility for the production of the Product is the legal entity which the first named author is employed by. The Product is made available in **Australia** through Citigroup Global Markets Australia Pty Ltd. (ABN 64 003 114 832 and AFSL No. 240992), participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in Australia to Private Banking wholesale clients through Citigroup Pty Limited (ABN 88 004 325 080 and AFSL 238098). Citigroup Pty Limited provides all financial product advice to Australian Private Banking wholesale clients through bankers and relationship managers. If there is any doubt about the suitability of investments held in Citigroup Private Bank accounts, investors should contact the Citigroup Private Bank in Australia. Citigroup companies may compensate affiliates and their representatives for providing products and services to clients. The Product is made available in **Brazil** by Citigroup Global Markets Brasil - CCTVM SA, which is regulated by CVM - Comissão de Valores Mobiliários, BACEN - Brazilian Central Bank, APIMEC - Associação dos Analistas e Profissionais de Investimento do Mercado de Capitais and ANBID - Associação Nacional dos Bancos de Investimento. Av. Paulista, 1111 - 11º andar - CEP. 01311920 - São Paulo - SP. If the Product is being made available in certain provinces of **Canada** by Citigroup Global Markets (Canada) Inc. ("CGM Canada"), CGM Canada has approved the Product. Citigroup Place, 123 Front Street West, Suite 1100, Toronto, Ontario M5J 2M3. This product is available in **Chile** through Banchile Corredores de Bolsa S.A., an indirect subsidiary of Citigroup Inc., which is regulated by the Superintendencia de Valores y Seguros. Agustinas 975, piso 2, Santiago, Chile. The Product is made available in **France** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 1-5 Rue Paul Cézanne, 8ème, Paris, France. The Product is distributed in **Germany** by Citigroup Global Markets Deutschland AG ("CGMD"), which is regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin). CGMD, Reuterweg 16, 60323 Frankfurt am Main. Research which relates to "securities" (as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong)) is issued in **Hong Kong** by, or on behalf of, Citigroup Global Markets Asia Limited which takes full responsibility for its content. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Research is made available through Citibank, N.A., Hong Kong Branch, for its clients in Citi Private Bank, it is made available by Citibank N.A., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. Citibank N.A. is regulated by the Hong Kong Monetary Authority. Please contact your Private Banker in Citibank N.A., Hong Kong, Branch if you have any queries on or any matters arising from or in connection with this document. The Product is made available in **India** by Citigroup Global Markets India Private Limited, which is regulated by Securities and Exchange Board of India. Bakhtawar, Nariman Point, Mumbai 400-021. The Product is made available in **Indonesia** through PT Citigroup Securities Indonesia. 5/F, Citibank Tower, Bapindo Plaza, Jl. Jend. Sudirman Kav. 54-55, Jakarta 12190. Neither this Product nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable capital market laws and regulations. This Product is not an offer of securities in Indonesia. The securities referred to in this Product have not been registered with the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM-LK) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market laws and regulations. The Product is made available in **Israel** through Citibank NA, regulated by the Bank of Israel and the Israeli Securities Authority. Citibank, N.A., Platinum Building, 21 Ha'arba'ah St, Tel Aviv, Israel. The Product is made available in **Italy** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. Foro Buonaparte 16, Milan, 20121, Italy. The Product is made available in **Japan** by Citigroup Global Markets Japan Inc. ("CGMJ"), which is regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Shin-Marunouchi Building, 1-5-1 Marunouchi, Chiyoda-ku, Tokyo 100-6520 Japan. If the Product was distributed by SMBC Nikko Securities Inc. it is being so distributed under license. In the event that an error is found in an CGMJ research report, a revised version will be posted on the Firm's Global Equities Online (GEO) website. If you have questions regarding GEO, please call (81 3) 6270-3019 for help. The Product is made available in **Korea** by Citigroup Global Markets

Korea Securities Ltd., which is regulated by the Financial Services Commission, the Financial Supervisory Service and the Korea Financial Investment Association (KOFIA). Citibank Building, 39 Da-dong, Jung-gu, Seoul 110-180, Korea. KOFIA makes available registration information of research analysts on its website. Please visit the following website if you wish to find KOFIA registration information on research analysts of Citigroup Global Markets Korea Securities Ltd. <http://dis.kofia.or.kr/fs/dis2/fundMgr/DISFundMgrAnalystPop.jsp?companyCd2=A03030&pageDiv=02>. The Product is made available in **Malaysia** by Citigroup Global Markets Malaysia Sdn Bhd (Company No. 460819-D) ("CGMM") to its clients and CGMM takes responsibility for its contents. CGMM is regulated by the Securities Commission of Malaysia. Please contact CGMM at Level 43 Menara Citibank, 165 Jalan Ampang, 50450 Kuala Lumpur, Malaysia in respect of any matters arising from, or in connection with, the Product. The Product is made available in **Mexico** by Acciones y Valores Banamex, S.A. De C. V., Casa de Bolsa, Integrante del Grupo Financiero Banamex ("Accival") which is a wholly owned subsidiary of Citigroup Inc. and is regulated by Comision Nacional Bancaria y de Valores. Reforma 398, Col. Juarez, 06600 Mexico, D.F. In **New Zealand** the Product is made available to 'wholesale clients' only as defined by s5C(1) of the Financial Advisers Act 2008 ('FAA') through Citigroup Global Markets Australia Pty Ltd (ABN 64 003 114 832 and AFSL No. 240992), an overseas financial adviser as defined by the FAA, participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in **Pakistan** by Citibank N.A. Pakistan branch, which is regulated by the State Bank of Pakistan and Securities Exchange Commission, Pakistan. AWT Plaza, 1.1. Chundrigar Road, P.O. Box 4889, Karachi-74200. The Product is made available in the **Philippines** through Citicorp Financial Services and Insurance Brokerage Philippines, Inc., which is regulated by the Philippines Securities and Exchange Commission. 20th Floor Citibank Square Bldg. The Product is made available in the Philippines through Citibank NA Philippines branch, Citibank Tower, 8741 Paseo De Roxas, Makati City, Manila. Citibank NA Philippines NA is regulated by The Bangko Sentral ng Pilipinas. The Product is made available in **Poland** by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Nadzoru Finansowego. Dom Maklerski Banku Handlowego S.A. ul.Senatorska 16, 00-923 Warszawa. The Product is made available in the **Russian Federation** through ZAO Citibank, which is licensed to carry out banking activities in the Russian Federation in accordance with the general banking license issued by the Central Bank of the Russian Federation and brokerage activities in accordance with the license issued by the Federal Service for Financial Markets. Neither the Product nor any information contained in the Product shall be considered as advertising the securities mentioned in this report within the territory of the Russian Federation or outside the Russian Federation. The Product does not constitute an appraisal within the meaning of the Federal Law of the Russian Federation of 29 July 1998 No. 135-FZ (as amended) On Appraisal Activities in the Russian Federation. 8-10 Gasheka Street, 125047 Moscow. The Product is made available in **Singapore** through Citigroup Global Markets Singapore Pte. Ltd. ("CGMSPL"), a capital markets services license holder, and regulated by Monetary Authority of Singapore. Please contact CGMSPL at 1 Temasek Avenue, #39-02 Millenia Tower, Singapore 039192, in respect of any matters arising from, or in connection with, the analysis of this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). The Product is made available by The Citigroup Private Bank in Singapore through Citibank, N.A., Singapore Branch, a licensed bank in Singapore that is regulated by Monetary Authority of Singapore. Please contact your Private Banker in Citibank N.A., Singapore Branch if you have any queries on or any matters arising from or in connection with this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). This report is distributed in Singapore by Citibank Singapore Ltd ("CSL") to selected Citigold/Citigold Private Clients. CSL provides no independent research or analysis of the substance or in preparation of this report. Please contact your Citigold/Citigold Private Client Relationship Manager in CSL if you have any queries on or any matters arising from or in connection with this report. This report is intended for recipients who are accredited investors as defined under the Securities and Futures Act (Cap. 289). Citigroup Global Markets (Pty) Ltd. is incorporated in the **Republic of South Africa** (company registration number 2000/025866/07) and its registered office is at 145 West Street, Sandton, 2196, Saxonwold. Citigroup Global Markets (Pty) Ltd. is regulated by JSE Securities Exchange South Africa, South African Reserve Bank and the Financial Services Board. The investments and services contained herein are not available to private customers in South Africa. The Product is made available in **Spain** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. 29 Jose Ortega Y Gassef, 4th Floor, Madrid, 28006, Spain. The Product is made available in the **Republic of China** through Citigroup Global Markets Taiwan Securities Company Ltd. ("CGMTS"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan and/or through Citibank Securities (Taiwan) Company Limited ("CSTL"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan, subject to the respective license scope of each entity and the applicable laws and regulations in the Republic of China. CGMTS and CSTL are both regulated by the Securities and Futures Bureau of the Financial Supervisory Commission of Taiwan, the Republic of China. No portion of the Product may be reproduced or quoted in the Republic of China by the press or any third parties [without the written authorization of CGMTS and CSTL]. If the Product covers securities which are not allowed to be offered or traded in the Republic of China, neither the Product nor any information contained in the Product shall be considered as advertising the securities or making recommendation of the securities in the Republic of China. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security or financial products. Any decision to purchase securities or financial products mentioned in the Product must take into account existing public information on such security or the financial products or any registered prospectus. The Product is made available in **Thailand** through Citicorp Securities (Thailand) Ltd., which is regulated by the Securities and Exchange Commission of Thailand. 18/F, 22/F and 29/F, 82 North Sathorn Road, Silom, Bangrak, Bangkok 10500, Thailand. The Product is made available in **Turkey** through Citibank AS which is regulated by Capital Markets Board. Tekfen Tower, Eski Buyukdere Caddesi # 209 Kat 2B, 23294 Levent, Istanbul, Turkey. In the **U.A.E.**, these materials (the "Materials") are communicated by Citigroup Global Markets Limited, DIFC branch ("CGML"), an entity registered in the Dubai International Financial Center ("DIFC") and licensed and regulated by the Dubai Financial Services Authority ("DFSA") to Professional Clients and Market Counterparties only and should not be relied upon or distributed to Retail Clients. A distribution of the different CIRA ratings distribution, in percentage terms for Investments in each sector covered is made available on request. Financial products and/or services to which the Materials relate will only be made available to Professional Clients and Market Counterparties. The Product is made available in **United Kingdom** by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. This material may relate to investments or services of a person outside of the UK or to other matters which are not regulated by the FSA and further details as to where this may be the case are available upon request in respect of this material. Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB. The Product is made available in **United States** by Citigroup Global Markets Inc, which is a member of FINRA and registered with the US Securities and Exchange Commission. 388 Greenwich Street, New York, NY 10013. Unless specified to the contrary, within EU Member States, the Product is made available by Citigroup Global Markets Limited, which is regulated by Financial Services Authority. Pursuant to Comissão de Valores Mobiliários Rule 483, Citi is required to disclose whether a Citi related company or business has a commercial relationship with the subject company. Considering that Citi operates multiple businesses in more than 100 countries around the world, it is likely that Citi has a commercial relationship with the subject company. Many European regulators require that a firm must establish, implement and make available a policy for managing conflicts of interest arising as a result of

publication or distribution of investment research. The policy applicable to CIRA's Products can be found at www.citigroupgeo.com.

Compensation of equity research analysts is determined by equity research management and Citigroup's senior management and is not linked to specific transactions or recommendations.

The Product may have been distributed simultaneously, in multiple formats, to the Firm's worldwide institutional and retail customers. The Product is not to be construed as providing investment services in any jurisdiction where the provision of such services would not be permitted.

Subject to the nature and contents of the Product, the investments described therein are subject to fluctuations in price and/or value and investors may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. Certain investments contained in the Product may have tax implications for private customers whereby levels and basis of taxation may be subject to change. If in doubt, investors should seek advice from a tax adviser. The Product does not purport to identify the nature of the specific market or other risks associated with a particular transaction. Advice in the Product is general and should not be construed as personal advice given it has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to their objectives, financial situation and needs. Prior to acquiring any financial product, it is the client's responsibility to obtain the relevant offer document for the product and consider it before making a decision as to whether to purchase the product. With the exception of our product that is made available only to Qualified Institutional Buyers (QIBs), CIRA concurrently disseminates its research via proprietary and non-proprietary electronic distribution platforms. Periodically, individual CIRA analysts may also opt to circulate research posted on such platforms to one or more clients by email. Such email distribution is discretionary and is done only after the research has been disseminated via the aforementioned distribution channels. CIRA simultaneously distributes product that is limited to QIBs only through email distribution.

The level and types of services provided by CIRA analysts to clients may vary depending on various factors such as the client's individual preferences as to the frequency and manner of receiving communications from analysts, the client's risk profile and investment focus and perspective (e.g. market-wide, sector specific, long term, short-term etc.), the size and scope of the overall client relationship with Citi and legal and regulatory constraints.

© 2011 Citigroup Global Markets Inc. Citi Investment Research & Analysis is a division of Citigroup Global Markets Inc. Citi and Citi with Arc Design are trademarks and service marks of Citigroup Inc. and its affiliates and are used and registered throughout the world. All rights reserved. Any unauthorized use, duplication, redistribution or disclosure of this report (the "Product"), including, but not limited to, redistribution of the Product by electronic mail, posting of the Product on a website or page, and/or providing to a third party a link to the Product, is prohibited by law and will result in prosecution. The information contained in the Product is intended solely for the recipient and may not be further distributed by the recipient to any third party. Where included in this report, MSCI sourced information is the exclusive property of Morgan Stanley Capital International Inc. (MSCI). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, redisseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI, Morgan Stanley Capital International and the MSCI indexes are services marks of MSCI and its affiliates. The Firm accepts no liability whatsoever for the actions of third parties. The Product may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the Product refers to website material of the Firm, the Firm has not reviewed the linked site. Equally, except to the extent to which the Product refers to website material of the Firm, the Firm takes no responsibility for, and makes no representations or warranties whatsoever as to, the data and information contained therein. Such address or hyperlink (including addresses or hyperlinks to website material of the Firm) is provided solely for your convenience and information and the content of the linked site does not in anyway form part of this document. Accessing such website or following such link through the Product or the website of the Firm shall be at your own risk and the Firm shall have no liability arising out of, or in connection with, any such referenced website.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST
