India Oil & Gas Daily

16 Nov 2011

- Industry Overview
- Daily

Saurabh Handa

Garima Mishra

- **Petrol price cut by Rs2.22/ltr —** Petrol price was slashed by Rs2.22/ltr, the first reduction in 33 months. Petrol in Delhi will cost Rs66.42/ltr now as against Rs68.64/ltr earlier. The reduction comes days after state-owned oil companies raised petrol prices by a steep Rs1.8/ltr. State-owned oil companies passed on Rs1.85/ltr that they gained from a fall in global oil prices and a marginal appreciation in rupee value. Adding 20% local sales tax, the decrease in Delhi comes to Rs2.22/ltr. "If the Rupee/Dollar parity remains at this level or moves further away, its impact would get reflected in the next pricing cycle," an IOC statement said. (ET, 15th Nov)

- **GAIL wins rights to lay Surat-Paradip pipeline —** GAIL won rights to lay a 1,550-km natural gas pipeline from Surat in Gujarat to Paradip in Orissa, connecting west to east coast. GAIL beat GSPL to win the right to lay the pipeline when regulator PNGRB opened bids. GAIL bid an astonishingly low pipeline tariff of Rs 0.01/mmbtu to bag the project. The aggressive bidding by GAIL followed the firm losing bids for the previous three major pipelines to GSPL. The bi-directional, Rs55bn pipeline would have a capacity of up to 60 mmscmd of gas. The pipeline is to originate from Mora in Gujarat which is a major node/terminal of GSPL's network. LNG imported at the proposed Mundra terminal, Petronet's Dahej or Shell's Hazira terminal are possible sources of gas, which can be transported through the pipeline up to the east coast. (ET, 15th Nov)

- **NOC in limbo: Differences between Cairn and its partner on payment —** Cairn's partner may take a little longer to issue an NOC to Cairn for the deal. While the two companies have now decided Cairn will pay its partner in dollars for the royalty, the companies are yet to decide at what exchange rate. On Sep 27, the board actually agreed to give that NOC provided they got a written pact from Cairn India for withdrawing the cess arbitration and also solving the royalty issue. Cairn will have to reimburse the partner for the royalty that the partner has been paying on the behalf of Cairn at the Barmer oilfield. Initially, the partner wanted the reimbursement in Indian currency, however, Cairn wanted to pay in dollars. Now it's been agreed that Cairn will probably be reimbursing its partner in dollars but the tricky issue is about the exchange rate. (Moneycontrol, 15th Nov)

Daily Indicators

		15-Nov-11	14-Nov-11	Last week's avg
WTI	US$/bbl	99.4	98.1	97.0
Brent	US$/bbl	112.6	112.2	113.7
Indian Crude Basket	US$/bbl	111.5	111.7	111.3
S'pore GRM	US$/bbl	8.0	6.4	8.2
Gasoline	US$/bbl	110.9	113.5	117.4
Diesel	US$/bbl	131.7	131.3	131.0
LPG	US$/Ton	748.0	748.0	782.5
Kerosene	US$/bbl	130.9	129.8	130.7

Source: Reuters, Bloomberg

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

Industry News

Oil companies hike jet fuel prices

State-owned oil companies today hiked jet fuel prices for the second time this month, raising rates by a steep 2% with effect from midnight tonight. "The price of aviation turbine fuel (ATF), or jet fuel, at Delhi was raised by Rs1,195/kl, or 1.95%, to Rs 62,310.33/kl with effect from midnight, an official of IOC said. The increase comes on back of a massive 3.8% or Rs2,845/kl hike in rates effected from November 1. The three fuel retailers revise jet fuel prices on the 1st and 16th of every month, based on the average international price in the preceding fortnight. (ET, 15th Nov)

Oil firms' expansion plan fuels anger among retailers

In one of the biggest expansion plan since the Independence, three public sector oil companies — HPCL, BPCL and IOC — are planning to set up 30,000 outlets all over the country. The move comes when these companies state that they are not in a position to buy crude in December. Of the 30,000 outlets, Karnataka will get 3,000 outlets, concentrated mainly in the interior, rural and coastal areas. Each outlet in the urban areas will cost no less than Rs10-15m and Rs5-7.5m in rural and interior areas. Chairman of the Akhila Karnataka Federation of Petroleum Traders, Bangalore, GV Bhushan Narang said that the oil companies were misleading the country with false promises to entrepreneurs. "Their advertisements and promos say that those who own a petrol pump can get steady and perennial income, but their marketing discipline guidelines (MDG) are not conducive for healthy growth of petroleum retailing in the country. The companies have deregulated petrol, but diesel and a host of other products are still in limbo," he said. (ET, 14th Nov)

India, Pak to hold talks for trade in petroleum products

India and Pakistan have agreed that a joint group of experts would hold its first meeting before January regarding trade in petroleum products. These were part of the joint statement issued by the two countries on Tuesday after talks between the Commerce Secretary, Dr Rahul Khullar, and his Pakistani counterpart Mr Zafar Mahmood. (Business Line, 15th Nov)

Company News

GAIL wants weaker oil link in LNG contracts

GAIL hopes to convince its suppliers of LNG, including Qatari producer Rasgas, to reduce the impact high oil prices have on its gas deliveries, its head of marketing said. Rasgas' biggest long-term customer by volume, GAIL wants to introduce price caps to limit its exposure to rising oil prices, including the introduction of a contractual device known as the s-curve. "S-curves are being talked about with Rasgas but they don't seem very interested in this discussion," GAIL's head of marketing Prabhat Singh said on the sidelines of an industry conference in Rome. GAIL also wants Rasgas to supply it with more LNG at prices it already pays, Singh said. Earlier this month, GAIL said it was close to landing a deal to buy 0.5-1.0 MMT of LNG in one to two months. (Reuters, 15th Nov)

Reliance, a white knight for Kingfisher?

The beleaguered Kingfisher Airlines is close to finding a white knight. That might just be Reliance Industries. This development should be seen in the context of the airline's promoter Mr Vijay Mallya's statement at a press conference that a potential investor is in talks with them. Reliance might either make a financial investment in the airline or pick up equity through a preferential offer which could be followed up by an open offer to public shareholders. If Reliance makes a financial investment in the airline, it might want the UB Group companies' shares pledged with itself as collateral. This financial investment could at a later stage be converted to equity. The second option will be preferential offer leading to Reliance gaining control of the airline. Reliance has, however, denied being in talks with Kingfisher for a possible stake sale. (Business Line + Bloomberg, 15th Nov)

Reliance Retail set to go big on retail once more with big-box hypermarkets
RIL-owned Reliance Retail is buying real estate in 20 towns and cities to build big-box hypermarkets, moving beyond its earlier model of leased properties and small formats, as the conglomerate turns the spotlight back on retail under the new operations team hired from Walmart China. A senior company executive added that the company has no plans of inducting an overseas partner even after foreign direct investment is allowed in the multi-brand retail sector. The focus on large-format stores of 60,000-80,000 sq ft, and building stores on its own land, marks a shift from the company's earlier strategy. Reliance Retail has bought land parcels in Mumbai, Aurangabad, Kolhapur, Pune, Mysore and Madurai in the last few months, each measuring 1-1.5 acres. The first big-box hypermarket opened at Santa Cruz in Mumbai last month and 10 days later a second one was opened in Pune. (ET, 16th Nov)

ONGC's revised estimates for 2011-12: Crude output falters
The revised estimates for 2011-12 peg crude output from its own asset downward by a significant 3.47% from target set for the year. The total crude oil production (excluding JVs) has been revised downwards from 24.774 MMT to 23.912 MMT. Pertinently, the revised figures are below the crude oil output in 2010-11 of 24.418 MMT. More worryingly, the step down is higher from the company's offshore assets where bulk of the production comes from. The total offshore crude production has been revised downwards by 4.19% – a fall larger than the average decline of 3.47% – from 17.434 MMT to 16.703 MMT. When production from ONGC's share of JVs is taken into account, there is a marginal improvement, with output below target by 3.21%. Against a budget estimate of 28.175 MMT of total production, the revised output level has been pegged at 27.268 MMT. (Indianpetro, 15th Nov)

ONGC's budget estimates for 2012-13: Crude oil production to go up by 4.74%
ONGC is going to start 2012-13 on a hopeful note by projecting a reversal in the downward trend in crude output. Crude oil production (excluding JVs) is set to go up by 4.74% in 2012-13 from the revised estimate of 2011-12. In other words, total crude oil production (excluding JVs) is set to go up from the revised estimate of 23.912 MMT in 2011-12 to 25.046 MMT in 2012-13. The total offshore crude oil production is estimated to go up by 6.98% from 16.703 MMT to 17.870 MMT. New offshore production is expected is expected to make up the gap but whether that happens or not will have to be seen. If the JV output is included, the budget estimate for crude oil production for 2012-13 is expected to go up by a whopping 5.48% from 27.268 MMT to 28.765 MMT. (Indianpetro, 15th Nov)

ONGC's revised estimates for 2011-12: Natural gas production revised downwards by 1.46%
Gas output is set to suffer a setback in 2011-12 but not as badly as crude production, Output is slated to be down 146% from target in the revised estimates (excluding JV output) in 2011-12. The setback has come from ONGC's offshore fields whereas onshore assets have performed well. Gas production (excluding JVs) has been revised downwards from a budget estimate of 23.536 bcm to 23.192 bcm in 2011-12. In comparison, gas production in 2010-11 is 23.095 bcm. Offshore output is expected to fall short of target by 2.54% from 18.153 bcm to 117.691 bcm. If JVs are included, the downward revision is smaller, at 0.84%, from an overall budget estimate of 25.451 bcm to 25.235 bcm. (Indianpetro, 15th Nov)

ONGC's budget estimates for 2012-13: Company bullish on gas output, to go up by 7.26%

ONGC expects an upswing in gas production (excluding JVs) in 2012-13, with output slated to go up by 7.26%. The total natural gas production (excluding JVs) is set to go up from the revised estimates of 23.192 bcm in 2011-12 to 24.877 bcm for the FY2012-13. The bulk of this increase is coming from ONGC's offshore assets. The total offshore natural gas production is estimated to go up by as much as 10.21% from the revised estimate of 17.691 bcm in the current year to 19.498 bcm next year. Production is slated to go up not just from Mumbai High but also from the Bassein and Satellite fields. If JVs are included, the budget estimate for natural gas production for FY2012-13 is expected to go up by 7.06% from 25.235 bcm in the revised estimates in 2011-12 to 27.018 bcm. (Indianpetro, 15th Nov)

GSPC Gas Company increases gas prices, CNG to cost more

Citing the non-allocation of cheaper natural gas from the Centre, the GSPC Gas Company announced a hike in the gas prices in various categories, impacting industry and end-users. The hike will come into effect from tomorrow (Nov 16), an official statement said. This is the third hike announced by the company this year. The oil and gas PSU has raised the prices of CNG from Rs40.25/kg to Rs45.25/kg, while it has revised the prices of gas supply to industry from Rs21.8/scm to Rs26.7/scm, a company official said. The company has hiked gas prices in commercial user category, comprising hotel and restaurants from Rs29.1/scm to Rs42/scm, he said. The company operates with a network of around 119 CNG outlets in Gujarat. In spite of several representations by the Gujarat Government and repeated requests by GSPC Gas, there has been no allocation of any cheaper domestic gas by the gov’t of India, said an official statement. (ET, 15th Nov)

CPCL's Euro-IV project at the Manali Refinery: Commissioning not before February, 2012

CPCL’s Euro-IV project at the Manali Refinery has encountered a delay of another two months. The Rs26bn Euro-IV project is now scheduled to be commissioned by Feb’12 as against the earlier deadline of Dec’11. Cumulatively, the project stands delayed by nine months over the original deadline of May’11. According to EIL’s latest project monitoring report, the project registered a physical progress of 97.5% as on Oct’11 as against a target of 100%. A sum of Rs16.8bn has been incurred on the project as on Oct’11. The project involves setting up a 1.8 MMTPA Diesel Hydro Treater Unit (DHDT), a 0.2 MMTPA Naphtha-Hydro-Treater (NHT) Unit, a 0.14 MMTPA Isomerisation Unit, a 21,000 TPA Hydrogen Generation Unit, along with treating units, utilites and offsites to meet Euro-III and Euro-IV specifications for MS and HSD. (Indianpetro, 15th Nov)

Indian consortium to hunt for oil in Sumatra

A consortium of GSPC and Essar Oil plans to launch a one-well exploratory drilling campaign at the onshore block in South East Tungkal gas basin of Central Sumatra in mid-2012. GSPC has 50.5% operating interest in the block. The rest is held by Essar. “We are expecting to close the 2-D seismic survey in the block in November. The drilling is expected to start some time in the middle of 2012,” a GSPC source said. The onshore block was one of the 29 exploration acreages awarded in 2008 through competitive bidding. (Business Line, 15th Nov)

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

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

	12 Month Rating			***Relative Rating***		
Data current as of 10 Oct 2011	**Buy**	**Hold**	**Sell**	**Buy**	**Hold**	**Sell**
Citi Investment Research & Analysis Global Fundamental Coverage	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	Saurabh Handa; Garima Mishra

OTHER DISCLOSURES

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.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST