Company Focus

8 January 2009 | 9 pages

# Indian Oil (IOC.BO)

## Buy: Safer Choice on Downstream Recovery

- **Downstream R&M in a different world** — Notwithstanding the price cuts on auto fuels in Dec (and another one likely in 1QCY09), Sing GRM of US$3/bbl and crude at ~US$50 could have a significant positive impact on profitability of R&M companies going into FY10E through: (i) higher absolute marketing EBITDA, (ii) better quality of and control over earnings, which offsets (iii) impact of weak refining.
- **Rs45-100bn EBITDA swing implies US$4.5-10bn EV upside** — Based on our analysis, at US$50 crude, the FY10E R&M industry EBITDA could go up by ~Rs45-100bn YoY depending on the extent of further price cuts. This is even with no oil bonds in FY10E and industry GRMs dropping to US$2.5/bbl. At 5x EV/EBITDA, this could translate to EV upside of US$4.5-10bn. Despite price cuts, blended MS and HSD margins are currently ~$25-30/bbl (on last month's prices, with crude averaging US$41/bbl).
- **Continue to prefer IOC** — Even though HPCL is most leveraged to the swing in industry EBITDA, we prefer IOC at this stage given the uncertainty surrounding price cuts and also as the oil futures curve is in contango, suggesting the market expects crude to follow an upward trajectory. IOC is therefore a hedged pick on downstream recovery; the diversified revenue mix (refining+pipeline) provides comfort in case crude px and refining margins were to go up again.
- **Key risks** — Government policy and a sharp increase in crude prices remain the key risks to the company. However, there is some cushion if crude were to rise again; at US$50/bbl crude, blended auto fuel margin would still be ~Rs2/l.

| Buy/Medium Risk | 1M |
|---|---|
| Price (07 Jan 09) | Rs421.15 |
| Target price | Rs528.00 |
| Expected share price return | 25.4% |
| Expected dividend yield | 3.7% |
| **Expected total return** | **29.1%** |
| Market Cap | Rs502,168M<br>US$10,367M |

**Price Performance (RIC: IOC.BO, BB: IOCL IN)**


**Statistical Abstract**

| Year to 31 Mar | Net Profit (RsM) | Diluted EPS (Rs) | EPS growth (%) | P/E (x) | P/B (x) | ROE (%) | Yield (%) |
|---|---|---|---|---|---|---|---|
| 2007A | 78,675 | 65.98 | 56.2 | 6.4 | 1.4 | 23.5 | 4.5 |
| 2008A | 79,127 | 66.36 | 0.6 | 6.3 | 1.2 | 19.8 | 1.3 |
| 2009E | 94,338 | 79.11 | 19.2 | 5.3 | 1.0 | 20.1 | 4.4 |
| 2010E | 77,305 | 64.83 | -18.1 | 6.5 | 0.9 | 14.6 | 3.7 |
| 2011E | 74,670 | 62.62 | -3.4 | 6.7 | 0.8 | 12.8 | 3.6 |

Source: Powered by dataCentral

**Rahul Singh**[1]
+91-22-6631-9863
rahul.r.singh@citi.com

**Saurabh Handa**[1]
+91-22-6631-9858
saurabh.handa@citi.com

Garima Mishra[1]
garima.mishra@citi.com

See Appendix A-1 for Analyst Certification and important disclosures.

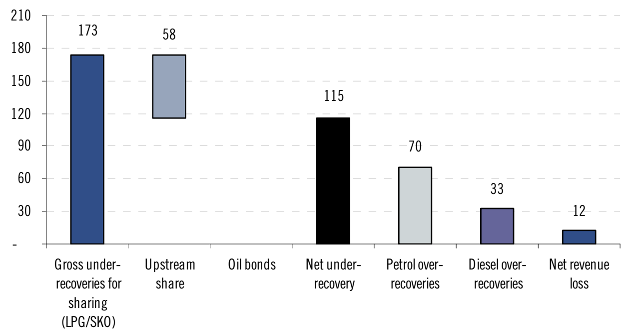

[1]Citigroup Global Markets India Private Limited

| Fiscal year end 31-Mar | 2007 | 2008 | 2009E | 2010E | 2011E |
|---|---|---|---|---|---|
| **Valuation Ratios** | | | | | |
| P/E adjusted (x) | 6.4 | 6.3 | 5.3 | 6.5 | 6.7 |
| EV/EBITDA adjusted (x) | 5.8 | 5.3 | 4.0 | 4.8 | 4.6 |
| P/BV (x) | 1.4 | 1.2 | 1.0 | 0.9 | 0.8 |
| Dividend yield (%) | 4.5 | 1.3 | 4.4 | 3.7 | 3.6 |
| **Per Share Data (Rs)** | | | | | |
| EPS adjusted | 65.98 | 66.36 | 79.11 | 64.83 | 62.62 |
| EPS reported | 65.98 | 66.36 | 79.11 | 64.83 | 62.62 |
| BVPS | 305.16 | 364.75 | 421.01 | 466.28 | 510.17 |
| DPS | 18.88 | 5.50 | 18.52 | 15.61 | 15.15 |
| **Profit & Loss (RsM)** | | | | | |
| Net sales | 1,999,308 | 2,279,454 | 4,073,402 | 3,783,630 | 3,506,830 |
| Operating expenses | -1,912,167 | -2,182,261 | -3,924,733 | -3,667,189 | -3,398,740 |
| **EBIT** | **87,142** | **97,193** | **148,670** | **116,441** | **108,090** |
| Net interest expense | -17,430 | -18,039 | -35,366 | -49,981 | -51,393 |
| Non-operating/exceptionals | 27,619 | 46,132 | 37,742 | 54,160 | 59,766 |
| **Pre-tax profit** | **97,330** | **125,286** | **151,046** | **120,620** | **116,462** |
| Tax | -34,324 | -39,381 | -51,287 | -40,980 | -39,569 |
| Extraord./Min.Int./Pref.div. | 15,668 | -6,778 | -5,420 | -2,335 | -2,223 |
| **Reported net income** | **78,675** | **79,127** | **94,338** | **77,305** | **74,670** |
| Adjusted earnings | 78,675 | 79,127 | 94,338 | 77,305 | 74,670 |
| Adjusted EBITDA | 116,844 | 127,610 | 183,266 | 155,720 | 149,933 |
| **Growth Rates (%)** | | | | | |
| Sales | 24.3 | 14.0 | 78.7 | -7.1 | -7.3 |
| EBIT adjusted | 43.1 | 11.5 | 53.0 | -21.7 | -7.2 |
| EBITDA adjusted | 35.2 | 9.2 | 43.6 | -15.0 | -3.7 |
| EPS adjusted | 56.2 | 0.6 | 19.2 | -18.1 | -3.4 |
| **Cash Flow (RsM)** | | | | | |
| **Operating cash flow** | **131,861** | **17,707** | **49** | **123,728** | **143,620** |
| Depreciation/amortization | 29,703 | 30,417 | 34,596 | 39,279 | 41,843 |
| Net working capital | 20,365 | -98,216 | -134,306 | 4,809 | 24,884 |
| **Investing cash flow** | **-119,776** | **-91,536** | **-410,552** | **-169,680** | **-83,382** |
| Capital expenditure | -49,583 | -76,967 | -26,221 | -59,094 | -40,733 |
| Acquisitions/disposals | -70,193 | -14,569 | -384,331 | -110,586 | -42,648 |
| **Financing cash flow** | **-8,985** | **86,223** | **386,723** | **47,553** | **-45,865** |
| Borrowings | -5,825 | 93,398 | 412,883 | 69,776 | -24,631 |
| Dividends paid | -26,745 | -8,276 | -27,260 | -23,323 | -22,333 |
| **Change in cash** | **3,099** | **12,393** | **-23,780** | **1,601** | **14,373** |
| **Balance Sheet (RsM)** | | | | | |
| **Total assets** | **1,039,935** | **1,260,428** | **1,811,079** | **1,996,098** | **1,949,423** |
| Cash & cash equivalent | 10,767 | 10,602 | 4,892 | 1,457 | 13,741 |
| Accounts receivable | 51,668 | 52,565 | 109,974 | 108,842 | 104,668 |
| Net fixed assets | 422,681 | 469,231 | 460,856 | 480,671 | 479,561 |
| **Total liabilities** | **659,098** | **803,482** | **1,281,634** | **1,410,335** | **1,309,100** |
| Accounts payable | 150,636 | 209,739 | 254,767 | 235,948 | 205,153 |
| Total Debt | 294,811 | 388,209 | 801,092 | 870,868 | 846,237 |
| **Shareholders' funds** | **380,837** | **456,946** | **529,445** | **585,763** | **640,323** |
| **Profitability/Solvency Ratios (%)** | | | | | |
| EBITDA margin adjusted | 5.8 | 5.6 | 4.5 | 4.1 | 4.3 |
| ROE adjusted | 23.5 | 19.8 | 20.1 | 14.6 | 12.8 |
| ROIC adjusted | 9.4 | 9.1 | 12.6 | 8.8 | 7.9 |
| Net debt to equity | 74.6 | 82.6 | 150.4 | 148.4 | 130.0 |
| Total debt to capital | 43.6 | 45.9 | 60.2 | 59.8 | 56.9 |

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

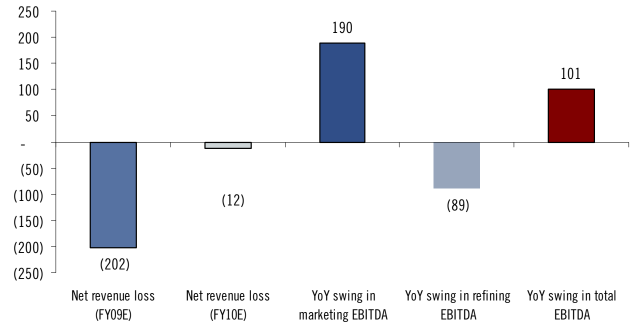
Powered by: dataCentral

**Figure 1. Build-up of FY10E net revenue loss for the industry assuming US$50 crude (Rs bn)**



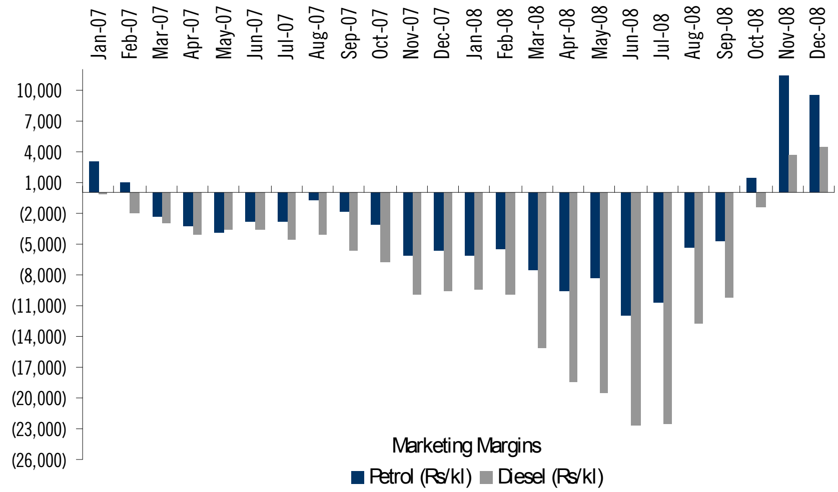

Source: Citi Investment Research

**Figure 2. FY10E vs. FY09E aggregate EBITDA swing if crude stays at US$50 (Rs bn)**




Source: Citi Investment Research

**Figure 3. Marketing Margins on Auto Fuels**




Source: Citi Investment Research estimates, Bloomberg

# Indian Oil

## Company description

IOC is the largest oil refining and marketing company in India. It has controlling interests in IBP, Chennai Refineries, and Bongaigaon Refineries.

## Investment strategy

We rate IOC shares Buy / Medium Risk (1M) with a target price of Rs528. IOC is the dominant downstream refining and marketing company in India, controlling 41% of India's refining capacity and selling 56% of all petro-products in India. It also owns the largest pipeline network among downstream oil companies in India thus resulting in a well-rounded revenue mix. IOC's fundamentals are driven by parameters such as oil prices and reforms in retail petroleum pricing. We believe IOC's valuation not only captures the benefit of better operations but also commands a premium over HPCL for its advantages and superior earnings profile. Even though it is difficult to predict the subsidy situation FY10E onwards, some comfort can be derived from the fact that the government has stuck to its commitment till date in FY09.

## Valuation

Our target price for IOC of Rs528 is based on an FY10E EV/EBITDA of 6.0x and 5.0x to contribution from oil bonds. The 6.0x multiple is a moderate discount to the approximately 6.5~7.0x target multiple we use for other Indian refineries, given the lower complexity of IOC's refineries and also the policy indifference of the government. The target price includes material contribution from IOC's holdings in ONGC and GAIL at 50% discount to current market prices -worth Rs60/share to factor in the current market environment. While valuing the Indian oil refining and marketing companies, we prefer to use EV/EBITDA to compare companies across the regions to avoid the differences in accounting policies on depreciation and taxation. Our target price implies a P/BV of 1.4x FY08, at a premium to HPCL given IOC's lower proportion of marketing assets as a proportion of total assets.

## Risks

We assign a Medium Risk rating to the stock, because volatility in international oil prices will likely continue to impact earnings, given the linkage to marketing margins. Sentiment towards the sector and IOC is closely linked to crude price fluctuations, sector deregulation, subsidy losses, and auto fuel price hikes/cuts. Downside risks to our target price include: sharp increase in crude prices leading to higher-than-expected increase in marketing losses; retail price cuts by the government; any change in the subsidy-sharing formula leading to an increase in the net losses being borne by downstream R&M companies. The outcome of elections in early FY10 and the shape of the next central government would also have a bearing on the outlook for reforms in the sector.

# Hindustan Petroleum (HPCL.BO; Rs264.40; 3M)

## Valuation

Our target price for HPCL of Rs213 is based on FY10E EV/EBITDA of 6.0x for core earnings and 5.0x to contribution from oil bonds. The 6.0x multiple is a moderate discount to the approximately 6.5~7.0x target multiple we use for other Indian refineries, given the lower complexity of HPCL's refineries and also the policy indifference of the government. We use FY10E as a base considering a normalized earnings scenario based on 1/3rd subsidy sharing by upstream amid continued policy ambiguity. While valuing the Indian oil refining and marketing companies, we prefer to use EV/EBIDTA to compare companies across the region to avoid differences in accounting policies in depreciation and taxation. Our target price also equates to an FY10E P/BV of 0.6x, at a discount to the target imputed P/BV multiple for IOC. We believe this is justified given the poorer capital efficiency ratios of HPCL as a result of a higher proportion of lower-yielding marketing assets vs. refining assets.

## Risks

We assign a Medium Risk rating to the stock, as we believe volatility in international oil prices will continue to impact earnings given the linkage to marketing margins. Sentiment toward the sector and HPCL is closely linked to event risks from sector deregulation, subsidy losses and auto fuel price hikes. Removal of the subsidy-sharing mechanism with upstream companies and/or fuel price cuts could significantly impact HPCL's earnings. The advent of private-sector competition in any significant way could exert pressure on marketing margins. Upside risks to our target price include a sharp decline in crude prices and the resultant recovery in the company's marketing profitability could lead to higher-than-estimated returns. If the government took concrete pricing action on retail products to bring them in line with international prices it would put our earnings forecasts at risk.

# Appendix A-1

## Analyst Certification

**Each research analyst(s) principally responsible for the preparation and content of all or any identified portion of this research report hereby certifies that, with respect to each issuer or security or any identified portion of the report with respect to an issuer or security that the research analyst covers in this research report, all of the views expressed in this research report accurately reflect their personal views about those issuer(s) or securities. Each research analyst(s) also certify that no part of their 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 research report.**

## IMPORTANT DISCLOSURES

### Indian Oil (IOC.BO)

**Ratings and Target Price History**
**Fundamental Research**

Analyst: Rahul Singh


| | Date | Rating | Target Price | Closing Price |
|---|---|---|---|---|
| 1 | 21-Mar-06 | 2M | *590.00 | 545.00 |
| 2 | 15-Jun-06 | *1M | *427.00 | 368.20 |
| 3 | 8-Nov-06 | *3M | *450.00 | 498.50 |
| 4 | 5-Nov-07 | 3M | *494.00 | 484.50 |
| 5 | 20-Oct-08 | *1M | *528.00 | 407.05 |

* Indicates change

Rating/target price changes above reflect Eastern Standard Time

### Hindustan Petroleum (HPCL.BO)

**Ratings and Target Price History**
**Fundamental Research**

Analyst: Rahul Singh


| | Date | Rating | Target Price | Closing Price |
|---|---|---|---|---|
| 1 | 15-Jun-06 | 2M | *260.00 | 248.40 |
| 2 | 8-Nov-06 | *3M | *299.00 | 309.15 |
| 3 | 5-Nov-07 | 3M | *184.00 | 246.30 |
| 4 | 20-Oct-08 | 3M | *213.00 | 239.65 |

* Indicates change

Rating/target price changes above reflect Eastern Standard Time

Within the past 12 months, Citigroup Global Markets Inc. or its affiliates has acted as manager or co-manager of an offering of securities of Indian Oil, Hindustan Petroleum.

Citigroup Global Markets Inc. or its affiliates has received compensation for investment banking services provided within the past 12 months from Indian Oil, Hindustan Petroleum.

Citigroup Global Markets Inc. or an affiliate received compensation for products and services other than investment banking services from Indian Oil, Hindustan Petroleum in the past 12 months.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as investment banking client(s): Indian Oil, Hindustan Petroleum.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, securities-related: Indian Oil, Hindustan Petroleum.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, non-securities-related: Indian Oil, Hindustan Petroleum.

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 revenues from, among other business units, the Private Client Division, Institutional Sales and Trading, and Investment Banking.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Investment Research product ("the Product"), please contact Citi Investment Research, 388 Greenwich Street, 29th Floor, New York, NY, 10013, Attention: Legal/Compliance. 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. Private Client Division clients should refer to www.smithbarney.com/research. 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 Ratings Distribution**

| *Data current as of 31 Dec 2008* | Buy | Hold | Sell |
|---|---|---|---|
| Citi Investment Research Global Fundamental Coverage | 46% | 37% | 17% |
| *% of companies in each rating category that are investment banking clients* | 48% | 43% | 38% |

**Guide to Fundamental Research Investment Ratings:**

Citi Investment Research's stock recommendations include a risk rating and an investment rating.

**Risk ratings**, which take into account both price volatility and fundamental criteria, are: Low (L), Medium (M), High (H), and Speculative (S).

**Investment ratings** are a function of Citi Investment Research's expectation of total return (forecast price appreciation and dividend yield within the next 12 months) and risk rating.

For securities in emerging markets (Asia Pacific, Emerging Europe/Middle East/Africa, and Latin America), investment ratings are: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.

Guide to Corporate Bond Research Credit Opinions and Investment Ratings: Citi Investment Research's corporate bond research issuer publications include a fundamental credit opinion of Improving, Stable or Deteriorating and a complementary risk rating of Low (L), Medium (M), High (H) or Speculative (S) regarding the credit risk of the company featured in the report. The fundamental credit opinion reflects the CIR analyst's opinion of the direction of credit fundamentals of the issuer without respect to securities market vagaries. The fundamental credit opinion is not geared to, but should be viewed in the context of debt ratings issued by major public debt ratings companies such as Moody's Investors Service, Standard and Poor's, and Fitch Ratings. CBR risk ratings are approximately equivalent to the following matrix: Low Risk Triple A to Low Double A; Low to Medium Risk High Single A through High Triple B; Medium to High Risk Mid Triple B through High Double B; High to Speculative Risk Mid Double B and Below. The risk rating element illustrates the analyst's opinion of the relative likelihood of loss of principal when a fixed income security issued by a company is held to maturity, based upon both fundamental and market risk factors. Certain reports published by Citi Investment Research will also include investment ratings on specific issues of companies under coverage which have been assigned fundamental credit opinions and risk ratings. Investment ratings are a function of Citi Investment Research's expectations for total return, relative return (to publicly available Citigroup bond indices performance), and risk rating. These investment ratings are: Buy/Overweight the bond is expected to outperform the relevant Citigroup bond market sector index (Broad Investment Grade, High Yield Market or Emerging Market), performances of which are updated monthly and can be viewed at http://sd.ny.ssmb.com/ using the "Indexes" tab; Hold/Neutral Weight the bond is expected to perform in line with the relevant Citigroup bond market sector index; or Sell/Underweight the bond is expected to underperform the relevant sector of the Citigroup indexes.

## OTHER DISCLOSURES

The subject company's share price set out on the front page of this Product is quoted as at 07 January 2009 03:42 PM on the issuer's primary market.

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 subject company(ies) 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 does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of Citi Investment Research 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.

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 to wholesale clients through Citigroup Global Markets Australia Pty Ltd. (ABN 64 003 114 832 and AFSL No. 240992) and to retail clients through Citi Smith Barney Pty Ltd. (ABN 19 009 145 555 and AFSL No. 240813), Participants 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 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. 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 may not be distributed to private clients in Germany. The Product is distributed in Germany by Citigroup Global Markets Deutschland AG & Co. KGaA, which is regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin). Frankfurt am Main, Reuterweg 16, 60323 Frankfurt am Main. If the Product is made available in Hong Kong by, or on behalf of, Citigroup Global Markets Asia Ltd., it is attributable to Citigroup Global Markets Asia Ltd., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Product is made available in Hong Kong by The Citigroup Private Bank to its clients, it is attributable to Citibank N.A., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. The Citigroup Private Bank and Citibank N.A. is regulated by the Hong Kong Monetary Authority. 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 Italy by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. Foro Buonaparte 16, Milan, 20121, Italy. If the Product was prepared by Citi Investment Research and distributed in Japan by Nikko Citigroup Limited ("NCL"), it is being so distributed under license. If the Product was prepared by NCL and distributed by Nikko Cordial Securities Inc. or Citigroup Global Markets Inc. it is being so distributed under license. NCL 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. In the event that an error is found in an NCL research report, a revised version will be posted on Citi Investment Research'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 Financial Supervisory Commission and the Financial Supervisory Service. Hungkuk Life Insurance Building, 226 Shinmunno 1-GA, Jongno-Gu, Seoul, 110-061. The Product is made available in Malaysia by Citigroup Global Markets Malaysia Sdn Bhd, which is regulated by Malaysia Securities Commission. Menara Citibank, 165 Jalan Ampang, Kuala Lumpur, 50450. 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 through Citigroup Global Markets New Zealand Ltd. (Company Number 604457), a Participant of the New Zealand Exchange Limited and regulated by the New Zealand Securities Commission. Level 19, Mobile on the Park, 157 Lambton Quay, Wellington. 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 Poland by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Nadzoru Finansowego. Bank Handlowy w Warszawie 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., a Capital Markets Services Licence holder, and regulated by Monetary Authority of Singapore. 1 Temasek Avenue, #39-02 Millenia Tower, Singapore 039192. 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. 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 Taiwan through Citigroup Global Markets Taiwan Securities Company Ltd., which is regulated by Securities & Futures Bureau. No portion of the report may be reproduced or quoted in Taiwan by the press or any other person. No. 8 Manhattan Building, Hsin Yi Road, Section 5, Taipei 100, Taiwan. 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. The Product is made available in U.A.E. by Citigroup Global Markets Limited, which is authorised and regulated by the Dubai Financial Services Authority. DIFC, Bldg 2, Level 7, PO Box 506560, Dubai, UAE. 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 regulated by NASD, NYSE and 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. 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 Citi Investment Research'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.



ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST