

Industry Flash

26 September 2007 | 10 pages

India: Pure Refiners

Asset valuations to the fore

- Pure refinery stocks up sharply** — Last couple of weeks has seen a sharp spurt in the standalone refinery stocks viz. RPL (+22%), CPCL (+8%), MRPL (+64%), and BRPL (+29%). The re-rating has been driven by comparative asset valuations led by RPL.
- Is this justified?** — Greenfield refinery costs have shot up globally and therefore this does not come as a complete surprise. Post the sharp upward move, refinery stocks are trading at EV/complexity bbl of US\$1400-US\$2600, broadly in line with the current replacement cost of US\$2000-2200/complexity bbl. The higher EV/complexity bbl for RIL/RPL (US\$2200-2600) is on account of the significant tax benefits as well.
- Where is value left?** — CPCL, with EV/bpd of US\$8,000 and EV/complexity bbl of US\$1,000 is not only at a steep discount to RIL/RPL, but also to other PSU refiners viz. MRPL/BRPL, which are at US\$1400-1800/bbl. At EV/complexity bbl of US\$1,500, CPCL could be worth Rs490. We reiterate Buy (1L) with a Rs360 target on 5.5x mid-FY09E EV/EBITDA, at a discount to peers (6.5-7.0x).
- Cannot extend this logic to BPCL, HPCL, IOC** — Downstream R&M, though benefiting on their refinery assets, are still bogged down by policy uncertainty, which is not getting any better in the current political context. The resultant discount on marketing assets would continue to have an overbearing impact on these stocks. We therefore see the recent move in these stocks on “sympathy” as an exit opportunity.

Rahul Singh¹

 +91-22-6631-9863
 rahul.r.singh@citi.com

Saurabh Handa¹

 +91-22-6631-9858
 saurabh.handa@citi.com

Garima Mishra¹

garima.mishra@citi.com

Figure 1. Peer comparison on asset valuations (at current prices)

Company	Throughput(kbpd)	EV/bpd (US\$)	EV/complexity bbl (US\$)
RPL	580	36987	2642
RIL	660	24639	2180
Chennai Petroleum	210	7986	998
BRPL (Not Rated)	48	8455	1409
MRPL (Not Rated)	250	16345	1816
Thai Oil	241	15063	1798

Source: Company Reports, Citigroup Investment Research

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

Citi Investment Research 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. Non-US research analysts who have prepared this report are not registered/qualified as research analysts with the NYSE and/or NASD. 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.

¹Citigroup Global Markets India Private Limited

CPCL undervalued vis-à-vis peers

Figure 1. Asset Valuation for CPCL

		Comments
EV/Complexity bbl (US\$)	1500	At discount to large PSU peers
Nelson complexity index	7.0	
EV/bpd (US\$)	10500	Current greenfield cost of more complex refiners at US\$25,000/bpd
Capacity (bpd)	210000	
EV (Rs m)	89303	
Less: Net Debt	16730	As on Mar-08E
Equity value	72573	
Asset value per share	487	

Source: Citigroup Investment Research estimates

Valuation & Risks:

Chennai Petroleum

(CHPC.BO - Rs296.05; 1L)

Valuation: Our target price of Rs360 is based on an EV/EBITDA of 5.5x mid-FY09E, meaningful discount to RIL/RPL (6.5-7.0x) to factor in smaller size, public sector status, risk of subsidies (though low in our opinion), and potential risk of merger with IOC. We base our valuation on the mid-point of FY08-09E to capture part of the decline in refining margins that we assume going forward. Though the target EV/EBITDA multiple is at the higher end of the company's past five-year historical trading band of 2.0x-5.5x, we believe it is justified by the sustained strength in the refining outlook over next 3 years. While valuing the Indian refining and marketing companies, we tend to use EV/EBITDA numbers to compare companies across the regions, thereby avoiding the differences in accounting policies on depreciation and taxation.

On conservative assumptions of EV/complexity bbl of US\$1500 (25% discount to the prevailing replacement cost), CPCL could be worth Rs490 i.e. 37% premium to our target price. This coupled with dividend yield of 5.5% (FY08E) indicates the extent of hidden value in the stock.

Risks: We rate CPCL as Low Risk. Further strength in the regional refining margins could result in upside risk to our earnings estimates. Any move by the government to implement the Downstream Regulatory Bill, set up an independent regulator and free retail pricing could give a fillip to the stock. Declines in regional refining margins will have an adverse impact on our earnings estimates for CPCL. Any move to initiate merger with its parent, IOC, may be adverse for the minority shareholders of CPCL on account of the marketing losses of the former. Sentiment towards the sector and CPCL is closely linked to event risks from sector deregulation, import duty changes on petroleum products, subsidy losses and auto fuel price hikes. Any decrease in the dividend payout policy by CPCL will adversely impact the stock. If any of these risk factors has a greater impact than we expect, CPCL's share price will likely have difficulty attaining our target price.

Bharat Petroleum

(BPCL.BO - Rs362.50; 3M)

Valuation: Our target price for BPCL of Rs385 based on an FY08E EV/EBITDA of 5.5x for core earnings and 2.0x to contribution from oil bonds. We use FY08E as a base considering a normalized earnings scenario along with improved marketing profitability (in line with lower crude) but continued policy ambiguity. While valuing the Indian oil refining and marketing companies, we prefer to use EV/EBITDA to compare companies across the region to avoid differences in accounting policies in depreciation and taxation. Our target price is also based on an FY06E P/BV of 1.4x, between the value we ascribe to HPCL and IOC, justified given the better mix of refining and marketing BPCL as compared to HPCL, but a lower proportion of high-yielding pipeline assets vis-à-vis IOC.

Risks: We assign a Medium Risk rating to the stock. Sentiment towards the sector and BPCL is closely linked to crude price fluctuations, sector deregulation, subsidy losses, and auto fuel price hikes. Removal of the subsidy-sharing mechanism with upstream companies and/or reduction in the oil bonds from the government could significantly impact BPCL's earnings. Upside risks to our target price include: a further decline in crude prices (to

US\$50-55/bbl) and stronger-than-expected recovery in the company's marketing profitability leading 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; and on the macro front, if the government were to adopt the Downstream Regulatory Bill, appoint an independent regulator, and give pricing freedom to the oil-marketing companies, it would likely give a fillip to the stock price.

Hindustan Petroleum

(HPCL.BO - Rs283.00; 3M)

Valuation: Our target price for HPCL of Rs299 is based on an FY08E EV/EBITDA of 5.5x for core earnings and 2.0x to contribution from oil bonds. We use FY08E as a base considering a normalized earnings scenario in FY08E along with improved marketing profitability but continued policy ambiguity. While valuing the Indian oil refining and marketing companies, we prefer to use EV/EBITDA to compare companies across the region to avoid differences in accounting policies in depreciation and taxation. Our target price is also based on an FY06E P/BV of 1.1x, at a discount to target multiples for BPCL and 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. Sentiment towards the sector and HPCL is closely linked to crude price fluctuations, sector deregulation, subsidy losses, and auto fuel price hikes. Upside risks to our target price include: a further decline in crude prices (to US\$50-55/bbl) and stronger-than-expected recovery in the company's marketing profitability leading 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; and on the macro front, if the government were to adopt the Downstream Regulatory Bill, appoint an independent regulator, and give pricing freedom to the oil-marketing companies, it would likely give a fillip to the stock price.

Indian Oil

(IOC.BO - Rs454.00; 3M)

Valuation: Our target price for IOC of Rs450 is based on an FY08E EV/EBITDA of 6.0x—at a premium to BPCL and HPCL—and 2.0x the contribution from oil bonds. We are maintaining a valuation premium (for core earnings) to BPCL and HPCL considering IOC's superior revenue mix and sustainable competitive advantage. The target price includes the value of IOC's holdings in ONGC and GAIL at current market prices—worth Rs103/share at a 20% discount to the current market prices. IOC has stated its intention to liquidate a part of the cross-holdings in ONGC and GAIL in installments, the first tranche of which was completed earlier this year. 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 is also based on an FY06E P/BV of 1.6x, at a premium to BPCL/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. Sentiment towards the sector and IOC is closely linked to crude price fluctuations, sector

deregulation, subsidy losses, and auto fuel price hikes. Upside risks to our target price include: a further decline in crude prices (below US\$50/bbl) and stronger-than-expected recovery in the company's marketing profitability leading to higher-than-estimated returns; if the government took concrete pricing action on retail products to bring them into line with international prices, it would put our earnings forecasts at risk; full implementation of the Rangarajan Committee recommendations (especially on LPG and Kerosene) and/or setting up of independent regulator could give a fillip to the stock price.

Appendix A-1

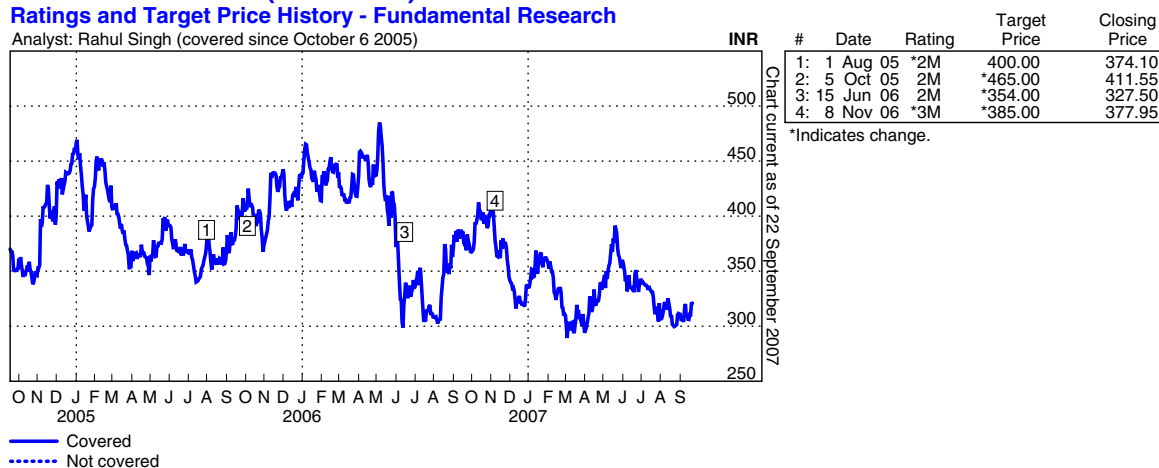
Analyst Certification

Each research analyst(s), strategist(s) or research associate(s) responsible for the preparation and content of this research report hereby certifies that, with respect to each issuer or security that the research analyst, strategist or research associate 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) strategist(s) or research associate(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, strategist or research associate in this research report.

IMPORTANT DISCLOSURES

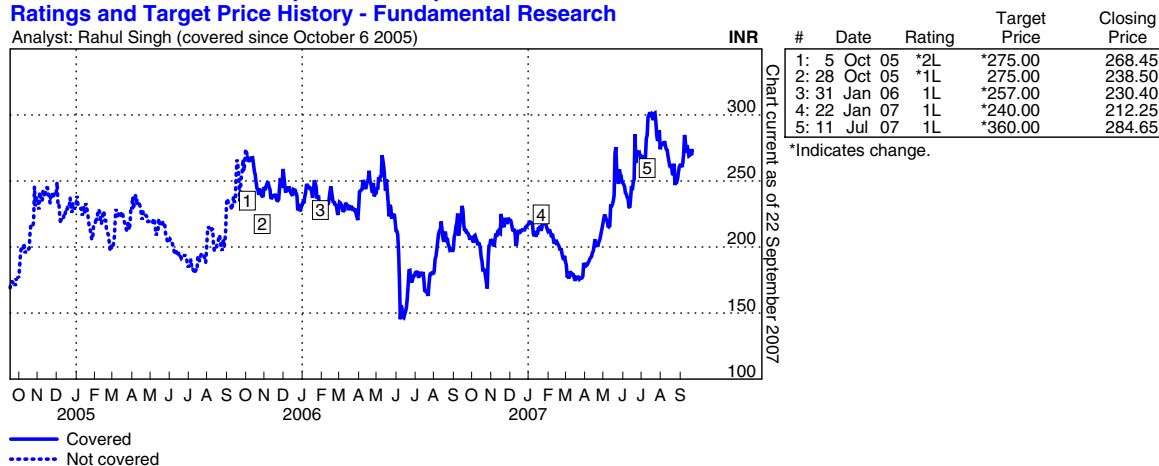
Bharat Petroleum (BPCL.BO) Ratings and Target Price History - Fundamental Research

Analyst: Rahul Singh (covered since October 6 2005)



Chennai Petroleum (CHPC.BO) Ratings and Target Price History - Fundamental Research

Analyst: Rahul Singh (covered since October 6 2005)



Hindustan Petroleum (HPCL.BO)

Ratings and Target Price History - Fundamental Research

Analyst: Rahul Singh (covered since October 6 2005)



#	Date	Rating	Target Price	Closing Price
1:	28 Jan 05	*2H	415.00	349.75
2:	1 Aug 05	*2M	*325.00	295.65
3:	5 Oct 05	2M	*344.00	322.15
4:	15 Jun 06	2M	*260.00	248.40
5:	8 Nov 06	*3M	*299.00	309.15

*Indicates change.

Indian Oil (IOC.BO)

Ratings and Target Price History - Fundamental Research

Analyst: Rahul Singh (covered since October 6 2005)



#	Date	Rating	Target Price	Closing Price
1:	1 Aug 05	*2M	*446.00	409.40
2:	5 Oct 05	2M	*515.00	451.20
3:	21 Mar 06	2M	*590.00	545.00
4:	15 Jun 06	*1M	*427.00	368.20
5:	8 Nov 06	*3M	*450.00	498.50

*Indicates change.

A director of Reliance Industries serves as a director on Citigroup's International Advisory Board.

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

Citigroup Global Markets Inc. or its affiliates has received compensation for investment banking services provided within the past 12 months from Bharat Petroleum, Chennai Petroleum, Hindustan Petroleum, Indian Oil, Mangalore Refinery & Petr, Reliance Industries, Reliance Petroleum and Thai Oil.

Citigroup Global Markets Inc. or its affiliates expects to receive or intends to seek, within the next three months, compensation for investment banking services from Bharat Petroleum, Hindustan Petroleum, Indian Oil and Mangalore Refinery & Petr.

Citigroup Global Markets Inc. or an affiliate received compensation for products and services other than investment banking services from Bharat Petroleum, Chennai Petroleum, Hindustan Petroleum, Indian Oil, Mangalore Refinery & Petr, Reliance Industries and Thai Oil in the past 12 months.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following company(ies) as investment banking client(s): Bharat Petroleum, Chennai Petroleum, Hindustan Petroleum, Indian Oil, Mangalore Refinery & Petr, Reliance Industries, Reliance Petroleum and Thai Oil.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following company(ies) as clients, and the services provided were non-investment-banking, securities-related: Bharat Petroleum, Hindustan Petroleum, Indian Oil, Mangalore Refinery & Petr, Reliance Industries and Thai Oil.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following company(ies) as clients, and the services provided were non-investment-banking, non-securities-related: Bharat Petroleum, Chennai Petroleum, Hindustan Petroleum, Indian Oil, Mangalore Refinery & Petr, Reliance Industries and Thai Oil.

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

India: Pure Refiners

26 September 2007

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 19 July 2007

	Buy	Hold	Sell
Citi Investment Research Global Fundamental Coverage (3320)	47%	39%	14%
% of companies in each rating category that are investment banking clients	71%	70%	70%

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.ssm.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

Citigroup Global Markets Inc. and/or its affiliates has a significant financial interest in relation to Indian Oil and Reliance Industries. (For an explanation of the determination of significant financial interest, please refer to the policy for managing conflicts of interest which can be found at www.citigroupgeo.com.)

Citigroup Global Markets Inc. or its affiliates beneficially owns 2% or more of any class of common equity securities of Chennai Petroleum.

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 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. 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., Citigroup Global Markets Inc., or Monex, 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) 5574-4860 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, which is regulated by Comisión Nacional Bancaria y de Valores. Reforma 398, Col. Juárez, 06600 Mexico, D.F. In New Zealand the Product is made available through Citigroup Global Markets New Zealand Ltd., 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 Poland by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Papierów Wartościowych i Giełd. 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 Taiwan through Citigroup Global Markets Inc. (Taipei Branch), 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 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 be illegal. 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.

This Product is not intended for distribution in Poland. Any receipt or review of the Product in Poland is not authorized by the Firm.

© 2007 Citigroup Global Markets Inc. (© Nikko Citigroup Limited, if this Product was prepared by it). Citi Investment Research is a division and service mark of Citigroup Global Markets Inc. and its affiliates and is used and registered throughout the world. Citigroup and the Umbrella Device are trademarks and service marks of Citigroup or its affiliates and are used and registered throughout the world. Nikko is a registered trademark of Nikko Cordial Corporation. All rights reserved. Any unauthorized use, duplication, redistribution or disclosure 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. 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
