

## Company In-Depth

10 September 2007 | 7 pages

# Hindustan Zinc (HZNC.BO)

## Buy: Changing Estimates – Lead Forecasts Hiked

 Rating change   
 Target price change   
 Estimate change 

- Changing forecasts, target price** — Our global commodity forecasts have been revised to account for recent price trends. Following the changes, we have reduced our EPS estimate for HZL by 12% in FY08E, but raised estimates by 3% for FY09E and 9% for FY10E. Our target price has been raised marginally by 3% to Rs1,194 based on 10x FY09E EPS. We maintain Buy/Medium Risk rating.
- Big jump in lead forecasts** — The substantial upgrade (by 69%-171% for FY08E-FY10E) to lead price forecasts by our global commodity analyst is the key driver to our EPS upgrades. Lead prices have been quite strong in recent months driven by supply disruptions (in Western Australia and USA), strong demand (Chinese demand is up more than 17% ytd) and speculative buying.
- Zinc - bullish fundamentals** — Zinc forecasts have been maintained for FY09E-FY10E. Our forecasts for FY08E have been revised downwards due to weak prices in recent weeks despite steady draw downs in LME stocks and a tightening fundamental market. We remain bullish as we do not expect China to emerge as a major supplier to western markets, and also because increases in mine production are expected to be delayed.
- Reiterate Buy (1M)** — HZL is an integrated producer that offers exposure to the robust outlook for zinc and lead. It is among the lowest-cost producers globally, and also offers volume growth (capacity being expanded by 63% to 669,000 tpa by 1Q FY09). Based on our outlook for its key products and sector re-rating, our target price is Rs1,194 based on a P/E of 10x for FY09E and at 5.6x EV/EBITDA.

<b>Buy/Medium Risk</b>	<b>1M</b>
Price (10 Sep 07)	Rs710.80
Target price	Rs1,194.00
	<i>from Rs1,155.00</i>
Expected share price return	68.0%
Expected dividend yield	0.8%
<b>Expected total return</b>	<b>68.8%</b>
Market Cap	Rs300,336M
	US\$7,416M

### Price Performance (RIC: HZNC.BO, BB: HZ IN)



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

Figure 1. Hindustan Zinc – Statistical Abstract

YE	Net Profit	EPS	EPS growth	P/E	EV/EBITDA	EBITDA margin	ROE
31 Mar	(Rs m)	(Rs)	(%)	(x)	(x)	(%)	(%)
FY05A	6,553	15.5	6%	45.8	29.5	46%	32%
FY06A	14,725	34.8	125%	20.4	12.0	62%	43%
FY07A	44,418	105.1	202%	6.8	3.8	78%	58%
FY08E	41,821	99.0	-6%	7.2	3.8	73%	36%
FY09E	50,465	119.4	21%	6.0	2.7	71%	31%
FY10E	32,471	76.8	-36%	9.2	3.4	62%	17%

Source: Company Reports, Citigroup Investment Research estimates. Prices as on Sep 10.

### Pradeep Mahtani<sup>1</sup>

+91-22-6631-9882  
 pradeep.mahtani@citi.com

### Raashi Chopra<sup>1</sup>

raashi.chopra@citi.com

Citigroup 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.

<sup>1</sup>Citigroup Global Markets India Private Limited

Fiscal year end 31-Mar	2006	2007	2008E	2009E	2010E
<b>Valuation Ratios</b>					
P/E adjusted (x)	20.4	6.8	7.2	6.0	9.2
EV/EBITDA adjusted (x)	12.2	4.1	4.1	3.0	3.8
P/BV (x)	8.8	3.9	2.6	1.8	1.6
Dividend yield (%)	0.4	0.7	0.8	0.8	0.8
<b>Per Share Data (Rs)</b>					
EPS adjusted	34.85	105.12	98.98	119.43	76.85
EPS reported	34.85	105.12	98.98	119.43	76.85
BVPS	81.17	180.51	272.65	385.24	455.25
DPS	2.50	5.00	6.00	6.00	6.00
<b>Profit &amp; Loss (RsM)</b>					
Net sales	38,903	85,602	83,193	100,307	76,269
Operating expenses	-16,133	-20,781	-25,014	-32,084	-32,362
<b>EBIT</b>	<b>22,770</b>	<b>64,821</b>	<b>58,179</b>	<b>68,223</b>	<b>43,907</b>
Net interest expense	-474	-284	-70	0	0
Non-operating/exceptionals	0	0	0	0	0
<b>Pre-tax profit</b>	<b>22,296</b>	<b>64,537</b>	<b>58,109</b>	<b>68,223</b>	<b>43,907</b>
Tax	-7,571	-20,119	-16,287	-17,758	-11,436
Extraord./Min.Int./Pref.div.	0	0	0	0	0
<b>Reported net income</b>	<b>14,725</b>	<b>44,418</b>	<b>41,821</b>	<b>50,465</b>	<b>32,471</b>
Adjusted earnings	14,725	44,418	41,821	50,465	32,471
Adjusted EBITDA	24,152	66,382	60,326	71,354	47,496
<b>Growth Rates (%)</b>					
Sales	76.7	120.0	-2.8	20.6	-24.0
EBIT adjusted	145.2	184.7	-10.2	17.3	-35.6
EBITDA adjusted	137.9	174.8	-9.1	18.3	-33.4
EPS adjusted	124.7	201.7	-5.8	20.7	-35.7
<b>Cash Flow (RsM)</b>					
<b>Operating cash flow</b>	<b>12,649</b>	<b>46,711</b>	<b>43,078</b>	<b>49,767</b>	<b>35,238</b>
Depreciation/amortization	1,383	1,561	2,147	3,131	3,589
Net working capital	-5,349	1,001	-4	-2,364	2,024
<b>Investing cash flow</b>	<b>-10,677</b>	<b>-37,984</b>	<b>-18,833</b>	<b>-7,990</b>	<b>1,094</b>
Capital expenditure	-2,143	-10,870	-20,250	-10,180	-2,000
Acquisitions/disposals	-9,170	-27,984	0	0	0
<b>Financing cash flow</b>	<b>-1,453</b>	<b>-8,270</b>	<b>-1,306</b>	<b>-2,890</b>	<b>-2,890</b>
Borrowings	-133	-5,576	0	0	0
Dividends paid	-842	-2,410	-1,236	-2,890	-2,890
<b>Change in cash</b>	<b>519</b>	<b>457</b>	<b>22,939</b>	<b>38,886</b>	<b>33,442</b>
<b>Balance Sheet (RsM)</b>					
<b>Total assets</b>	<b>48,324</b>	<b>87,548</b>	<b>129,401</b>	<b>179,474</b>	<b>210,403</b>
Cash & cash equivalent	740	1,197	24,136	63,023	96,465
Accounts receivable	6,899	5,566	6,153	8,770	7,798
Net fixed assets	19,181	28,706	46,809	53,859	52,270
<b>Total liabilities</b>	<b>14,026</b>	<b>11,278</b>	<b>14,199</b>	<b>16,698</b>	<b>18,046</b>
Accounts payable	1,837	2,065	2,424	3,098	3,398
Total Debt	5,580	4	4	4	4
<b>Shareholders' funds</b>	<b>34,298</b>	<b>76,271</b>	<b>115,202</b>	<b>162,776</b>	<b>192,357</b>
<b>Profitability/Solvency Ratios (%)</b>					
EBITDA margin adjusted	62.1	77.5	72.5	71.1	62.3
ROE adjusted	53.5	80.3	43.7	36.3	18.3
ROIC adjusted	62.4	141.3	93.2	86.0	52.7
Net debt to equity	14.1	-1.6	-20.9	-38.7	-50.1
Total debt to capital	14.0	0.0	0.0	0.0	0.0

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



Figure 2. Hindustan Zinc – Change in forecasts

	FY08E			FY09E			FY10E		
	Old	New	% chg	Old	New	% chg	Old	New	% chg
Lead LME (US\$/t)	1,565	2,649	69%	1,047	2,260	116%	854	2,315	171%
Zinc LME (US\$/t)	4,224	3,684	-13%	3,417	3,417	0%	2,315	2,315	0%
Net sales (Rs bn)	91	83	-9%	97	100	4%	71	76	7%
EBITDA (Rs bn)	68	60	-11%	69	71	3%	44	47	8%
Net profit (Rs bn)	47	42	-12%	49	50	3%	30	32	9%
EPS (Rs)	112.1	99.0	-12%	115.5	119.4	3%	70.7	76.8	9%

Source: Citigroup Investment Research estimates

## Hindustan Zinc

### Company description

Hindustan Zinc Ltd (HZL) is India's only integrated zinc producer with a 60% share of the Indian market. HZL's lead-zinc ore is mined at their open-pit mines at Rampura Agucha and two underground mines - Rajpura Dariba and Zawar. All its mines are located in Rajasthan in Northwest India. Two of its three smelters are located in Rajasthan - Chanderiya (zinc 275,000 tpa, lead 85,000 tpa), Debari (zinc 80,000 tpa). The third is located at Vizag, Andhra Pradesh in south India (zinc 56,000tpa). One of HZL's biggest advantages is the Rampura Agucha mines based in Rajasthan, which meets 90% of its concentrate requirements. According to Brook Hunt, the mine was estimated to have the third lowest cost globally of producing zinc concentrate in 2006. The Chanderiya smelter (170,000 tpa) was in the lowest cost quartile in terms of cost of production of all zinc smelting operations worldwide in 2006, according to Brook Hunt. HZL's zinc capacity is being expanded by 63% from 411,000 tpa to 669,000 tpa by 1QFY09. This will be accompanied with an increase in its captive power by 83% from 189MW to 346MW.

### Investment thesis

We rate Hindustan Zinc shares Buy / Medium Risk (1M) with a target price of Rs1,194. The stock offers exposure to the robust zinc price outlook. An integrated zinc producer, HZL is among the lowest-cost producers in the world largely due to the low cost of mining ore at the Rampura Agucha mine. Given our positive global outlook for zinc, we expect HZL's EBITDA margins to remain around 70% in FY08-FY09E. The substantial volume growth during these robust times due to zinc capacity being expanded by 63% to 669,000 tpa by 1Q FY09 further supports our positive view. Zinc prices have been relatively subdued this year due to concerns over supply trends from China. We expect the supply from China will moderate over the coming months, catalyzing a recovery in prices. HZL also gives exposure to lead, which currently trades at ~US\$3,000/t.

## Valuation

We use P/E as our preferred valuation parameter for HZL. The stock is largely driven by commodity price trends. The P/E valuations since April 2006 have moved up to a higher band ranging from 5x to 9x. For a majority of the period the stock has traded between 5x to 7x, but has been driven up to around 9x on surges in LME prices of zinc, particularly when zinc prices have reached or crossed US\$4,000/tonne. In recent times, the dramatic increase in the lead price has also helped keep valuations at higher levels. Based on our outlook that LME prices of zinc should rapidly improve in 2H FY08 to average around US\$4,000/tonne, we expect HZL's valuations to cross its historical P/E range. Our target price of Rs1,194 is arrived at by applying a P/E of 10x to FY09E earnings. This appears justified as zinc has the most robust outlook among base metals and considers the re-rating enjoyed by metal stocks in India and globally following recent M&A activity. HZL's EV/EBITDA has generally traded in a range of 4-5x, and valuations have also crossed 5x for brief periods. Based on our outlook for zinc, we expect valuations to once again cross an EV/EBITDA of 5x. Using an EV/EBITDA of 5x for FY09E would give a target price of Rs1,100, while at our target price, HZL's FY09E EV/EBITDA would be 5.6x.

## Risks

We rate HZL shares as Medium Risk based on our quantitative risk rating system, which tracks 260-day historical share price volatility. Risks that could prevent the shares from reaching our target price include: (1) Trends in commodity prices, including weaker zinc and lead prices; (2) Trends in US dollar exchange rates, including a strong rupee; (3) Any disruption at the Rampura Agucha mine which meets 90% of HZL's total mined metal in zinc concentrate during FY07 and accounted for 78% of HZL's total proven and probable reserves as of March 2006; (4) Delays in completing expansions on time would have an adverse impact on our profit forecasts.

## Appendix A-1

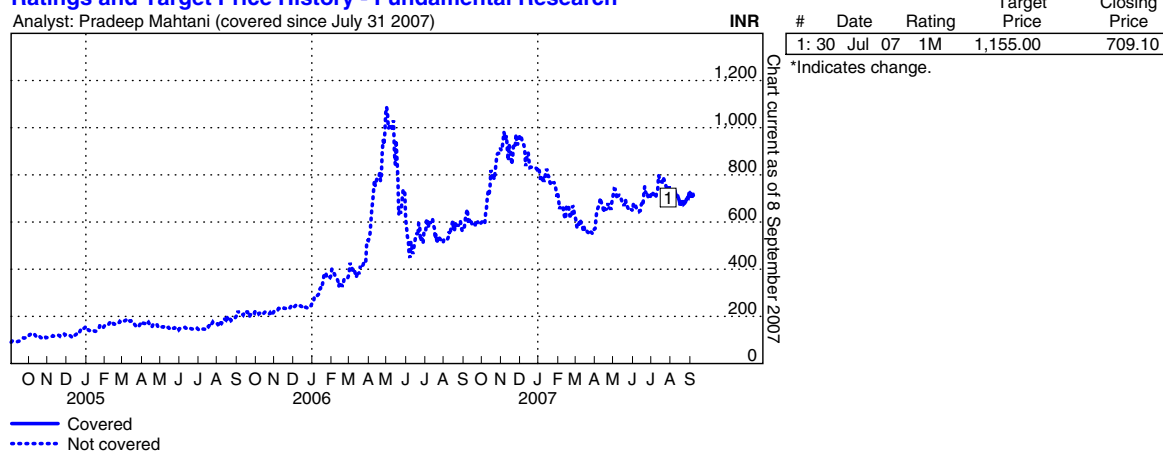
### Analyst Certification

I, Pradeep Mahtani, research analyst and the author of this report, hereby certify that all of the views expressed in this research report accurately reflect my personal views about any and all of the subject issuer(s) or securities. I also certify that no part of my compensation was, is, or will be directly or indirectly related to the specific recommendation(s) or view(s) in this report.

### IMPORTANT DISCLOSURES

#### Hindustan Zinc (HZNC.BO) Ratings and Target Price History - Fundamental Research

Analyst: Pradeep Mahtani (covered since July 31 2007)



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

Citigroup Global Markets Inc. or an affiliate received compensation for products and services other than investment banking services from Hindustan Zinc 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): Hindustan Zinc.

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: Hindustan Zinc.

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: Hindustan Zinc.

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 Citigroup Investment Research product ("the Product"), please contact Citigroup 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](http://www.citigroupgeo.com). Private Client Division clients should refer to [www.smithbarney.com/research](http://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.

#### Citigroup Investment Research Ratings Distribution

Data current as of 19 July 2007

	Buy	Hold	Sell
Citigroup Investment Research Global Fundamental Coverage (3320)	47%	39%	14%
% of companies in each rating category that are investment banking clients	71%	70%	70%
India -- Asia Pacific (144)	64%	11%	25%
% of companies in each rating category that are investment banking clients	89%	94%	83%

#### Guide to Fundamental Research Investment Ratings:

Citigroup 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 Citigroup 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:**

Citigroup 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 Citigroup 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 Citigroup 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**

The subject company's share price set out on the front page of this Product is quoted as at 10 September 2007 04:00 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 Citigroup Investment Research does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of Citigroup 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 Citigroup 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 Citigroup 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 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., 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 Gield. 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 Gashka 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 Citigroup Investment Research's Products can be found at [www.citigroupgeo.com](http://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.

© 2007 Citigroup Global Markets Inc. (© Nikko Citigroup Limited, if this Product was prepared by it). Citigroup 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