Industry Flash

1 April 2009 | 8 pages

India Wireless

TDSAT Order – Too Little Too Late and A Non-Event

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

Gaurav Malhotra, CFA[1]
gaurav.a.malhotra@citi.com

Anand Ramachandran, CFA[2]
+852-2501-2448
anand.ramachandran@citi.com

- **Rights over 6.2Mhz?** — While stating that the GSM operators don't have rights beyond 6.2MHz, in the same breadth TDSAT has termed the interim subs criteria as "reasonable" and even questioned the need to give additional licenses and hinted at relaxed M&A rules. Given that allotted spectrum is unlikely to be taken back, worst case involves payment of a one-time fee, which given upcoming elections and legal challenges carries implementation risk. A one-time spectrum fee, assuming 4Mhz of excess spectrum allotted to Bharti and Rs16.5bn paid for pan-India 6.2MHz spectrum, comes to ~Rs11bn (Rs6/share). We therefore think the market's negative reaction to this news is unjustified. Bharti remains our Top Pick.

- **Relaxation in M&A norms, the way out** — TDSAT, in the same order has also questioned the need to allocate new licenses given existing high competition, spectrum scarcity and low spectrum allotment/operator. It has therefore hinted to the DoT for relaxed M&A norms to achieve required spectrum efficiency.

- **New sub-based spectrum criteria – ad hoc but reasonable** — While coming down on TRAI for lack of transparency on its revised subscriber linked spectrum allocation criteria, it also has held the interim criteria to be "reasonable".

- **Technology neutrality** — TDSAT has stated that dual technology existed in the license terms and as such didn't find anything irregular in grant of GSM spectrum to RCOM/Tata-Tele. Although this removes the hangover on RCOM, we believe that too much water had flown under the bridge for TDSAT to have decided otherwise.

Figure 1. Statistical Abstract

		M Cap	Price (Rs)	P/E (x)		EV/EBITDA (x)	
Company name	Rating	US$M	1-Apr-09	FY09E	FY10E	FY09E	FY10E
Bharti	1L	23,491	626	14.7	11.5	8.3	6.3
RCOM	3H	7,126	175	6.0	9.5	6.7	6.9
Idea	2H	3,074	50	17.1	17.5	7.4	6.5

Source: Citi Investment Research and Analysis

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

[1]Citigroup Global Markets India Private Limited; [2]Citigroup Global Markets Asia

Bharti Airtel (BRTI.BO; Rs625.80; 1L)

Company description

Bharti Airtel, through its group companies, provides cellular-phone services in all the 23 telecom circles of India. The group also provides fixed-line phone services, broadband, long-distance and enterprise services. The company is listed on The Stock Exchange, Mumbai (BSE) and The National Stock Exchange of India Limited (NSE). Major shareholders are Bharti Telecom, SingTel and Vodafone.

Investment strategy

We rate Bharti shares Buy / Low Risk (1L). We believe continued robust wireless market expansion in India and Bharti's ability to capture this growth profitably will be a recurring theme. We estimate FY08-11E earnings CAGR of 23.7%, ahead of the broader market. We believe that competitive pressures, though intense, will remain rational as low revenue yields and moderate EBITDA margins leave little room for disruptive pricing. Additionally, most regulatory concerns are behind us and 3G recommendations, though discomforting, cannot derail the growth path, in our view. The company has yet to fully realize benefits of economies of scale, though competitive intensity will prevent any margin gains. We also expect the towerco hive-off (Bharti Infratel) to be a value accretive looking beyond, though a bit back-ended.

Valuation

Our target price of Rs900 is based on Mar-09E core DCF of Rs730 and a towerco option value of Rs170. The DCF is based on a WACC of 12% to reflect current macro environment, a terminal growth rate of 4% and beta of 0.9. We prefer DCF as our primary valuation methodology because the wireless market will likely continue to see robust growth requiring upfront capex but should generate significant free cash beyond FY09-10E. Our target price (standalone ex-towerco) represents a FY10E P/E of 14.2x, P/CEPS of 9.4x and EV/EBITDA of 7.9x.

Risks

Our quantitative risk-rating system, which tracks 260-day share price volatility, rates Bharti shares as Low Risk. We are comfortable attributing a Low Risk rating for the following reasons: 1) Bharti has a track record of profitability and execution; 2) the company's capex plans are fully funded; and 3) SingTel's strategic shareholding leaves us comfortable with execution issues and initiatives. Risks that could prevent the stock from reaching our target price include competition-led tariff pressures, cut in termination fee, un-remunerative capex and excessive bidding for 3G.

IDEA Cellular (IDEA.BO; Rs50.15; 2H)

Company description

Idea Cellular, a pure-play wireless provider, is the fifth-largest cellular operator in India. It has licenses to provide cellular-phone services in all the 22 telecom circles in India and an active presence in 12 of them. The company listed on the Indian bourse in March 2007 and is part of the Aditya Birla Group.

Investment strategy

We rate Idea Hold/High Risk. Continued robust wireless market expansion and Idea's ability to regain its growth potential following its restructuring and full control by Aditya Birla Group are key factors in our investment argument. Idea's strong competitive position in its existing circles and comparable operational parameters provide us sufficient comfort in management's ability to execute its plans. We estimate FY08-11E EBITDA CAGR at 28.6%. In addition, the stake sale in ABTL and preferential allotment to Telekom Malaysia give it sufficient flexibility for its overall capex requirement to launch in new circles. However, on the flip side, Idea is still incurring coverage capex in its old circles, which reduces its operating leverage. Relatively weaker balance sheet compared to its larger peers reduces the funding flexibility in a tougher macro environment, thus constraining the valuation multiples.

Valuation

Our target price of Rs56 is based on a core business value at Rs38/share and a towerco option value of Rs18/share through its 16% stake in Indus. Idea's core business is valued at 5.5x FY10E EV/EBITDA, a 30% discount to Bharti's imputed target FY10E EV/EBITDA. We believe that the high discount to Bharti is justified given 1) Margin impact of new circle launches - higher than expected impact of new launches (Mumbai/Bihar) in the current quarter and prolonged EBITDA breakeven in the previous 3 launches raise concern on NAV accretion from the new circles; 2) Additional leverage required to fund capex over next 1-2 years in the context of the ongoing current credit crunch; and 3) 3G auction carries event risk in relation to Idea's relatively weaker balance sheet.

Risks

We assign a High Risk rating to IDEA Cellular. Several downside risks could impede the stock from reaching our target price, in our view. Operationally, risks facing Idea have increased given that it will need to incur higher capex in the new circles due to the coverage compulsions in the context of the ongoing current credit crunch. Besides, prolonged EBITDA breakeven in the new circles raises concerns on NAV accretion in the new launches. In addition the upcoming 3G auction carries an event risk of unduly straining the balance sheet (FY10E Net Debt/EBITDA already at 2.3x) in the event of aggressive bidding. Upside risks to our target price include higher than expected market share gains and faster EBITDA breakeven in new circles and moderate 3G bidding.

Reliance Communications (RLCM.BO; Rs174.60; 3H)

Company description

RCOM is an integrated player in the Indian telecoms sector. It was listed on the Indian stock exchanges following the de-merger of Reliance Industries. RCOM is the second-largest player in the mobile segment, has an 80,000km-long India-wide optic-fiber network and owns the FLAG submarine cable network. RCOM has three business units: 1) Wireless, which includes a nationwide wireless network on CDMA and GSM; 2) Global Business comprising wholesale voice and data; and 3) Broadband for both retail and enterprise.

Investment strategy

We rate RCOM Sell/High Risk. Though RCOM has been benefiting from the continued wireless growth in India, it has been constrained by the CDMA network in terms of market share and elasticity. The change in consumer mix and market share gains depends on the proposed GSM foray. Though entry into GSM would help RCOM in gaining revenue market share, the gains at the operating level will be offset by the interest and depreciation arising from the significant capex. This could be accentuated by the fact that the capital work-in-progress is being funded by current liabilities presently. Besides, there are inherent risks in the execution of the dual network strategy (i.e. cost duplication, low market share gains) that cannot be wished away. RCOM is investing heavily in the Global Business, the returns for which might be back-ended. The hive-off of towers in a separate company (RTIL) has business potential though with increasing number of operators, and could unlock value in the medium term.

Valuation

Our target price of Rs150 is based on a core business value of Rs108 and net towerco value accretion of Rs42. We usually value Indian wireless plays on DCF given the back-ended nature of profits and cash flow. For RCOM, however, we use EV/EBITDA. The core business value of Rs108 is based on 5.6x FY10E EV/EBITDA, a 30% discount to Bharti's implied target multiple (ex-towerco), the same as employed for Idea's target price computation. We believe the discount to Bharti is justified on account of the inherent risks of dual network, high hidden leverage, stretched FCF breakeven, and lack of clarity on accounting policies (especially related to finance income).

Risks

Our risk-rating system, which tracks 260-day share price volatility, assigns a High Risk rating to RCOM, which we believe is appropriate given its high hidden leverage in the context to the current credit crunch, prolonged FCF breakeven given high capex plans and a lack of clarity on certain accounting policies. Upside risks to our target price include higher than expected market share gains in GSM and visibility on tenancy of RTIL with possible move towards value monetization. Easing of the macro credit environment and slower conversion of current liabilities to real debt would positively impact the earnings and sentiment on the stock.

Appendix A-1

Analyst Certification

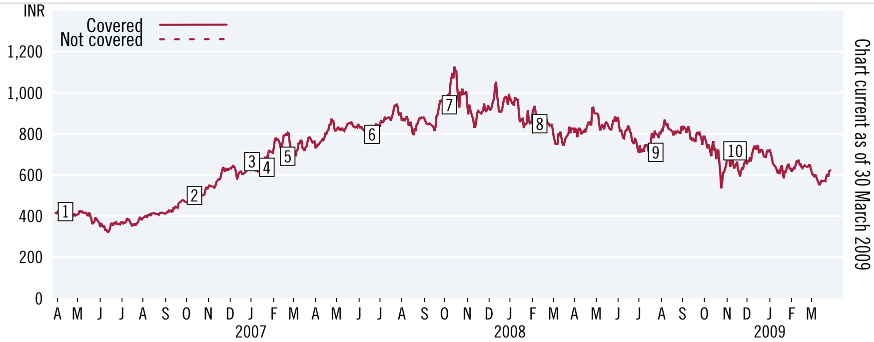
Each research analyst(s) principally responsible for the preparation and content of all or any identified portion of this research report hereby certifies that, with respect to each issuer or security or any identified portion of the report with respect to an issuer or security that the research analyst 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

Bharti Airtel (BRTI.BO)

Ratings and Target Price History
Fundamental Research

Analyst: Rahul Singh
Covered since April 28 2006



	Date	Rating	Target Price	Closing Price
1	13-Apr-06	1M	*500.00	395.95
2	12-Oct-06	*1L	*600.00	475.65
3	2-Jan-07	1L	*750.00	633.00
4	23-Jan-07	1L	*800.00	689.15
5	21-Feb-07	1L	*960.00	806.30
6	20-Jun-07	1L	*1,050.00	824.65
7	8-Oct-07	1L	*1,200.00	984.80
8	12-Feb-08	1L	*1,150.00	855.80
9	24-Jul-08	1L	*1,070.00	797.95
10	13-Nov-08	1L	*900.00	631.25

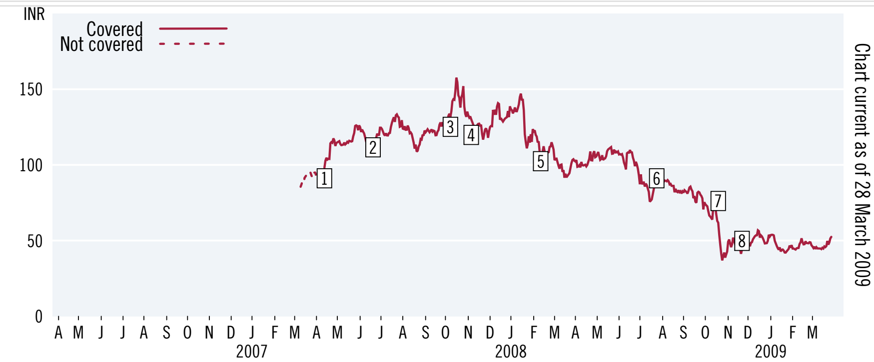
* Indicates change

Rating/target price changes above reflect Eastern Standard Time

IDEA Cellular (IDEA.BO)

Ratings and Target Price History
Fundamental Research

Analyst: Rahul Singh
Covered since April 12 2007



	Date	Rating	Target Price	Closing Price
1	12-Apr-07	*1L	*112.00	98.15
2	20-Jun-07	1L	*140.00	115.15
3	8-Oct-07	1L	*155.00	131.80
4	6-Nov-07	*2L	*140.00	130.10
5	12-Feb-08	*1L	140.00	106.25
6	24-Jul-08	1L	*120.00	87.65
7	20-Oct-08	*2M	*70.00	61.80
8	21-Nov-08	*2H	*56.00	44.20

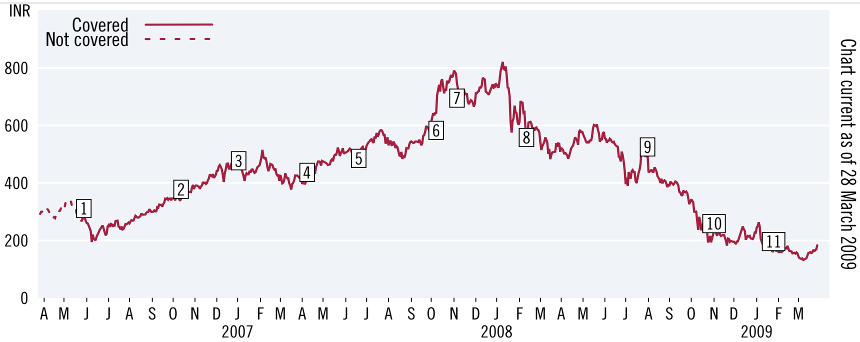
* Indicates change

Rating/target price changes above reflect Eastern Standard Time

Reliance Communications (RLCM.BO)

Ratings and Target Price History
Fundamental Research

Analyst: Rahul Singh
Covered since May 30 2006



Date	Rating	Target Price	Closing Price
1 29-May-06	*1M	*360.00	276.25
2 12-Oct-06	1M	*430.00	345.95
3 2-Jan-07	1M	*570.00	470.75
4 9-Apr-07	1M	*510.00	415.60
5 20-Jun-07	1M	*600.00	505.90
6 8-Oct-07	*1L	*750.00	640.90
7 6-Nov-07	*2L	*835.00	745.40
8 12-Feb-08	*1L	*760.00	575.70
9 31-Jul-08	*2L	*530.00	500.05
10 2-Nov-08	*2H	*270.00	220.70
11 26-Jan-09	*3H	*150.00	160.15

* Indicates change

Rating/target price changes above reflect Eastern Standard Time

Rahul Singh, Analyst, holds a long position in the securities of Bharti Airtel.

Citigroup Global Markets Inc. or its affiliates has received compensation for investment banking services provided within the past 12 months from Bharti Airtel, Reliance Communications.

Citigroup Global Markets Inc. or an affiliate received compensation for products and services other than investment banking services from Bharti Airtel, IDEA Cellular, Reliance Communications 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): IDEA Cellular, Bharti Airtel, Reliance Communications.

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: Bharti Airtel, IDEA Cellular.

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: Bharti Airtel, IDEA Cellular, Reliance Communications.

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 Mar 2009	**Buy**	**Hold**	**Sell**
Citi Investment Research Global Fundamental Coverage	43%	37%	20%
% of companies in each rating category that are investment banking clients	47%	43%	36%

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

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

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the Product has had discussions with the subject company to ensure factual accuracy prior to publication. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Citi Investment Research 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 Gasset, 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