

4 July 2008 | 9 pages

India Equity Strategy

Earnings Growth: Is It Really 20%?

- Downgrades, mood and market; Yet its 20%! —** It's that nagging question: How after a half year of earnings downgrades, sharply falling growth outlook, and a ravaged market, consensus says India's FY09 Sensex earnings growth will remain 20%? It's a circuitous story. The answer remains yes (for now), but there are caveats, and the mathematics has skews. We explore these.
- Counting the downgrades, missing the ups, and a few technicalities —** Citi's FY09E earnings growth has shifted down a modest 0.4% since Jan 08, even though there have been 27 downward revisions (for 30 cos). That should call for a sharper fall. It seems upgrades don't count for much when the market falls like a knife (down 37% ytd) – there have been 24 upgrades. And some mathematical support – a few dilutions (Hindalco) and acquisitions (HDBK) bolster market earnings, but not company ones.
- And it's the skew: 5 sectors account for 81% of profit growth —** Profits are concentrated – Energy, Banks, IT Services, Telecom, and Capital Goods contribute 76% of overall FY09E profits. These sectors have largely held their own on earnings, barring Cap goods (-5.3%), and therefore so has Sensex earnings growth. Key sector we see at risk from here is Banks, with rising yields likely to hurt earnings in 1Q.
- Let's slice and dice: only a little difference —** We a) equal weight sectors in the Sensex; 16.6% growth; b) broaden sample set (CIR universe of 155 stocks); 23.5% growth; c) equal weight CIR universe (14 sectors); 22.5% growth. We do see risks – macro, demand, likely lingering analyst optimism – but for now, it is 20%. It has also been (in a lighter vein) the Indian analysts' "magical number" where earnings and demand growth usually starts, but ends elsewhere.

Aditya Narain, CFA¹

 +91-22-6631-9879
 aditya.narain@citi.com

Tirthankar Patnaik¹

 +91-22-6631-9887
 tirthankar.patnaik@citi.com

Figure 1. Sensex and CIR Universe Profit Growth Estimates

Year	2008E	2009E	2010E
Sensex			
Profit Growth	35.0%	20.6%	13.4%
Median Growth	24.3%	20.9%	17.6%
Equally-weighted	32.1%	16.6%	14.0%
CIR			
Profit Growth	27.1%	23.8%	18.4%
Median Growth	25.6%	24.1%	18.9%
Equally-weighted	37.0%	22.2%	17.4%

Source: Citi 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. Customers of the Firm in the United States can receive independent third-party research on the company or companies covered in this report, at no cost to them, where such research is available. Customers can access this independent research at <http://www.smithbarney.com> (for retail clients) or <http://www.citigroupgeo.com> (for institutional clients) or can call (866) 836-9542 to request a copy of this research.

¹Citigroup Global Markets India Private Limited

India Equity Strategy

Earnings Growth: Is it really 20%?

Appears fair consistency in earnings across sectors. Telecom and IT services take the lead and Building materials and Autos are the lags. If one removes the earnings concentration by equal weighting the sectors, earnings growth does indeed dip to 16.6%.

Figure 2. Sensex Earnings Growth by Sector

Sector	2008	2009E	2010E
Autos, Ancillary, Transportation	3.3%	-1.1%	20.9%
Engg, Power, Construction	20.6%	21.2%	19.3%
Metals, Mining	45.7%	27.2%	15.9%
Building Materials	72.5%	-10.0%	-16.3%
Consumer, Retail	12.9%	20.9%	12.8%
Pharmaceuticals, Healthcare	20.1%	10.0%	17.6%
IT Services	18.6%	23.4%	16.1%
Telecom	65.9%	28.6%	20.6%
Real Estate	306.3%	20.2%	22.2%
Oil & Gas, Chemicals	24.3%	21.7%	3.8%
Banks, Financial Services	37.2%	20.6%	21.0%
Sensex	35.0%	20.6%	13.4%
Equally weighted Growth	57.0%	16.6%	14.0%
Median Growth	24.3%	20.9%	17.6%

Source: Citi Investment Research

Earnings are concentrated. Oil & gas accounts for 30% of profits, and the Banks, IT, Telecom and engineering account for the next 46%. The sectors with the maximum number of downgrades contribute only modestly.

Figure 3. Contribution to Sensex Profits by Sector

Sector	2007	2008E	2009E	2010E
Autos, Ancillary, Transp	4.6%	3.6%	3.0%	3.2%
Engg, Power, Construction	12.7%	11.8%	12.0%	12.8%
Metals, Mining	7.3%	5.6%	6.2%	6.5%
Building Materials	2.8%	3.7%	2.8%	2.4%
Consumer, Retail	4.9%	4.1%	4.0%	4.3%
Pharmaceuticals, Healthcare	1.3%	1.2%	1.1%	1.2%
IT Services	13.1%	11.9%	11.5%	11.1%
Telecom	7.9%	9.9%	10.7%	11.3%
Real Estate	2.1%	6.4%	6.4%	6.9%
Oil & Gas, Chemicals	31.9%	30.0%	30.5%	27.8%
Banks, Financial Services	11.3%	11.7%	11.8%	12.6%
Total (Sensex)	100%	100%	100%	100%

Source: Citi Investment Research

And from an incremental profit perspective, the skew is even more towards the heavy weights. Capital goods is the only one within this to have hurt on earnings. The banks, with an inverted and rising yield curve, could well be the next one to hurt.

Figure 4. Contribution to Incremental Sensex Profits by Sector

Sector	2008E	2009E	2010E
Autos, Anci, Transp	0.4%	-0.2%	4.6%
Engg, Power, Construction	7.5%	11.7%	16.7%
Metals, Mining	9.5%	10.4%	8.9%
Building Materials	5.9%	-1.8%	-3.3%
Consumer, Retail	1.8%	4.2%	4.0%
Pharmaceuticals, Healthcare	0.8%	0.6%	1.5%
IT Services	7.0%	13.1%	14.5%
Telecom	14.9%	13.5%	16.1%
Real Estate	18.1%	6.1%	10.5%
Oil & Gas, Chemicals	22.1%	30.9%	8.4%
Banks, Financial Services	12.0%	11.5%	18.3%
Sensex	100.0%	100.0%	100.0%

Source: Citi Investment Research

We detail earnings CIR's earnings changes between 1st Jan 2008 and 30th June 2008 for the BSE Sensex, and where we stand now on these stocks.

Figure 5. Sensex Profit Revision Analysis

RIC	Company	PAT Upgrades	PAT Downgrades	Adj. PAT Revision	Profit Share Jan	Profit Share Now	Share in Sensex FY09E PAT Growth	FY09E Earnings Growth Now	FY09E Earnings Growth (31 Dec 2007)
ACC.BO	ACC	0	1	-4.3%	0.8%	0.7%	-0.03%	-12.30%	-18.50%
BHEL.BO	B H E L	0	3	-22.1%	2.9%	2.3%	-0.64%	26.06%	32.84%
JAIA.BO	Jaiprakash Assoc	0	0	-41.4%	1.0%	0.6%	-0.41%	62.03%	62.03%
BRTI.BO	Bharti Airtel	0	1	-5.1%	5.8%	5.6%	-0.30%	25.00%	29.58%
CIPL.BO	Cipla	2	0	8.7%	0.4%	0.5%	0.04%	3.52%	8.26%
ABUJ.BO	Ambuja Cem.	0	1	-7.0%	0.9%	0.8%	-0.06%	-10.30%	-11.76%
GRAS.BO	Grasim Inds.	0	0	0.0%	1.2%	1.2%	0.00%	-8.36%	-8.36%
HALC.BO	Hindalco Inds.	2	0	84.5%	1.2%	2.2%	1.01%	45.49%	-19.12%
HDBK.BO	HDFC Bank	1	0	7.6%	1.4%	1.5%	0.11%	44.62%	30.54%
HLL.BO	Hind. Unilever	2	0	18.1%	1.4%	1.7%	0.26%	na	16.95%
MAHM.BOM	& M	0	0	0.0%	0.7%	0.7%	0.00%	10.18%	10.18%
ICBK.BO	ICICI Bank	0	1	-16.4%	3.8%	3.2%	-0.63%	17.73%	34.47%
INFY.BO	Infosys Tech.	4	2	7.4%	3.6%	3.9%	0.26%	25.71%	18.54%
ITC.BO	ITC	0	2	-8.5%	2.7%	2.4%	-0.23%	18.86%	21.97%
LART.BO	Larsen & Toubro	1	1	-6.4%	1.9%	1.8%	-0.12%	35.67%	40.06%
MRTI.BO	Maruti Suzuki	1	1	-5.0%	1.3%	1.2%	-0.07%	8.12%	14.44%
NTPC.BO	NTPC	0	0	0.0%	5.9%	5.9%	0.00%	11.47%	11.47%
ONGC.BO	O N G C	0	0	0.0%	16.4%	16.5%	0.00%	13.24%	13.24%
RANB.BO	Ranbaxy Labs.	1	0	2.6%	0.6%	0.6%	0.02%	15.54%	10.62%
DLF.BO	DLF Ltd	0	1	-4.7%	6.5%	6.2%	-0.31%	20.24%	42.83%
RELI.BO	Reliance Inds.	1	0	4.1%	12.5%	13.1%	0.52%	34.30%	31.95%
RLCM.BO	Reliance Communi	1	0	7.3%	4.4%	4.8%	0.32%	33.00%	25.35%
RLIN.BO	Reliance Energy	1	0	15.9%	0.8%	0.9%	0.12%	34.83%	13.82%
SATY.BO	Satyam Computer	2	2	8.7%	1.3%	1.5%	0.12%	31.39%	20.73%
SBI.BO	St Bk of India	2	1	15.6%	4.2%	4.9%	0.65%	9.51%	18.07%
TAMO.BO	Tata Motors	0	2	-44.7%	1.7%	0.9%	-0.75%	-17.25%	12.83%
TCS.BO	TCS	1	3	-2.5%	3.9%	3.9%	-0.10%	16.71%	16.44%
TISC.BO	Tata Steel	0	3	-5.3%	6.4%	6.1%	-0.34%	28.50%	Na
WIPR.BO	Wipro	2	2	-1.1%	2.7%	2.7%	-0.03%	26.08%	23.90%
Sensex		24	27	-0.38%	100.0%	100.0%	-0.38%		

Source: Citi Investment Research

Figure 6. Sensex Valuation Summary @13094

Year to 31 March	FY05	FY06	FY07	FY08E	FY09E	FY10E
EPS growth (%)	36.5%	17.9%	37.1%	35.0%	20.6%	13.2%
P/E (x)	33.3	28.3	20.6	15.3	12.7	11.2
Div. yield (%)	1.0%	1.1%	1.3%	1.6%	2.0%	2.2%
P/B (x)	6.5	5.6	4.4	3.4	2.8	2.4
ROAE (%)	24.6%	23.9%	25.6%	25.4%	23.8%	22.5%
EV/EBITDA* (x)	18.9	17.1	12.7	10.1	8.2	0.0
Net Debt/Equity* (%)	9.9%	12.9%	9.1%	9.3%	2.7%	-2.6%
EPS growth ex-oil (%)	31.4%	21.9%	43.4%	37.4%	22.2%	17.0%
P/E ex-oil	40.3	33.0	23.0	16.8	13.7	11.7
P/B ex-oil	7.0	6.1	4.6	3.6	2.9	2.5
BVPS ex-oil	1,872.2	2,162.7	2,819.3	3,624.0	4,481.2	5,276.9

Source: Citi Investment Research

Figure 7. Current Rating and Prices for Sensex Stocks

Company Name	RIC	Rating	Price (3-Jul-08)
Mahindra & Mahindra	MAHM.BO	1L	468
Maruti Udyog	MRTI.BO	2L	549
Tata Motors	TAMO.BO	1M	390
BHEL	BHEL.BO	2L	1,397
Jaiprakash	JAIA.BO	1L	139
Larsen & Toubro	LART.BO	1L	2,234
NTPC	NTPC.BO	1L	153
Reliance Infrastructure	RLIN.BO	1L	722
Hindalco	HALC.BO	1M	136
Tata Steel	TISC.BO	1M	657
ACC	ACC.BO	3M	472
Grasim Industries	GRAS.BO	3M	1,678
Gujarat Ambuja	ABUJ.BO	3M	72
Hindustan Lever	HLL.BO	1L	196
ITC	ITC.BO	1L	169
Cipla	CIPL.BO	3L	212
Ranbaxy	RANB.BO	1M	514
Infosys Technologies	INFY.BO	1M	1,748
Satyam Computers	SATY.BO	1M	451
Tata Consultancy	TCS.BO	1M	855
Wipro	WIPR.BO	1M	430
Bharti	BRTI.BO	1L	709
Reliance Comm	RLCM.BO	1L	390
DLF Limited	DLF.BO	1M	382
Oil & Natural Gas Corp	ONGC.BO	1L	859
Reliance Industries	RELI.BO	1L	2,071
HDFC Bank	HDBK.BO	1L	984
ICICI Bank	ICBK.BO	1L	574
State Bank of India	SBI.BO	1L	1,102

Source: Citi Investment Research

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 certifies 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

Customers of the Firm in the United States can receive independent third-party research on the company or companies covered in this report, at no cost to them, where such research is available. Customers can access this independent research at <http://www.smithbarney.com> (for retail clients) or <http://www.citigroupgeo.com> (for institutional clients) or can call (866) 836-9542 to request a copy of this research.

A member of Tirthankar Patnaik's household holds a long position in the shares of ICICI Bank and NTPC.

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

Citigroup Global Markets Inc. is acting as a financial advisor and providing firm financing commitments to Tata Motor in its acquisition of Jaguar and Land Rover from Ford Motor.

Citigroup Global Markets Inc. or its affiliates beneficially owns 1% or more of any class of common equity securities of ACC, Bharat Heavy, Bharti Airtel, ICICI Bank, Mahindra & Mahindra, Reliance Industries, Reliance Infrastructure, Satyam Computers Services and Tata Motors. This position reflects information available as of the prior business day.

Within the past 12 months, Citigroup Global Markets Inc. or its affiliates has acted as manager or co-manager of an offering of securities of Bharat Heavy, DLF, NTPC, Oil & Natural Gas, State Bank of India, Tata Motors and Tata Steel.

Citigroup Global Markets Inc. or its affiliates has received compensation for investment banking services provided within the past 12 months from ACC, Bharat Heavy, Bharti Airtel, DLF, Hindalco Industries, Hindustan Unilever, ICICI Bank, Larsen & Toubro, Maruti Suzuki India, NTPC, Oil & Natural Gas, Ranbaxy, Reliance Communications, Reliance Industries, Reliance Infrastructure, State Bank of India, Tata Consultancy Services, Tata Motors, Tata Steel and Wipro.

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 Heavy, Hindalco Industries, Hindustan Unilever, ICICI Bank, Infosys Technologies, Larsen & Toubro, NTPC, Oil & Natural Gas, State Bank of India, Tata Motors and Tata Steel.

Citigroup Global Markets Inc. or an affiliate received compensation for products and services other than investment banking services from ACC, Ambuja Cements, Bharat Heavy, Bharti Airtel, Cipla, DLF, Grasim Industries, HDFC Bank, Hindalco Industries, Hindustan Unilever, ICICI Bank, Infosys Technologies, ITC, Jaiprakash, Larsen & Toubro, Mahindra & Mahindra, Maruti Suzuki India, NTPC, Oil & Natural Gas, Ranbaxy, Reliance Communications, Reliance Industries, Reliance Infrastructure, Satyam Computers Services, State Bank of India, Tata Consultancy Services, Tata Motors, Tata Steel and Wipro 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): ACC, Bharat Heavy, Bharti Airtel, DLF, Hindalco Industries, Hindustan Unilever, ICICI Bank, Infosys Technologies, Jaiprakash, Larsen & Toubro, Maruti Suzuki India, NTPC, Oil & Natural Gas, Ranbaxy, Reliance Communications, Reliance Industries, Reliance Infrastructure, State Bank of India, Tata Consultancy Services, Tata Motors, Tata Steel and Wipro.

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: ACC, Ambuja Cements, Bharat Heavy, Bharti Airtel, Cipla, Grasim Industries, HDFC Bank, Hindalco Industries, Hindustan Unilever, ICICI Bank, Infosys Technologies, ITC, Jaiprakash, Larsen & Toubro, Mahindra & Mahindra, Maruti Suzuki India, NTPC, Oil & Natural Gas, Ranbaxy, Reliance Communications, Reliance Industries, Reliance Infrastructure, Satyam Computers Services, State Bank of India, Tata Consultancy Services, Tata Motors, Tata Steel and Wipro.

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: ACC, Ambuja Cements, Bharat Heavy, Bharti Airtel, Cipla, DLF, Grasim Industries, HDFC Bank, Hindalco Industries, Hindustan Unilever, ICICI Bank, Infosys Technologies, ITC, Jaiprakash, Larsen & Toubro, Mahindra & Mahindra, Maruti Suzuki India, NTPC, Oil & Natural Gas, Ranbaxy, Reliance Communications, Reliance Industries, Reliance Infrastructure, Satyam Computers Services, State Bank of India, Tata Consultancy Services, Tata Motors, Tata Steel and Wipro.

Citigroup Global Markets Inc. or an affiliate received compensation in the past 12 months from Hindalco Industries, Jaiprakash, State Bank of India and Tata Steel.

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.

The Firm is a market maker in the publicly traded equity securities of Infosys Technologies.

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 30 June 2008

Buy Hold Sell

Citi Investment Research Global Fundamental Coverage (3096)	50%	36%	14%
<i>% of companies in each rating category that are investment banking clients</i>	53%	52%	42%

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 (relative to the performance of relevant Citi bond indices), 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); 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 Citigroup bond market sector index. Performance data for Citi bond indices are updated monthly, are available upon request and can also be viewed at <http://sd.ny.ssmb.com/> using the "Indexes" tab.

OTHER DISCLOSURES

Citigroup Global Markets Inc. and/or its affiliates has a significant financial interest in relation to ICICI Bank, Mahindra & Mahindra, Ranbaxy, Reliance Communications, Reliance Industries, Reliance Infrastructure, State Bank of India, Tata Motors, Tata Steel and Wipro. (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 Reliance Infrastructure, Satyam Computers Services and Tata Motors.

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. Smith Barney clients can ask their Financial Advisor 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 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, 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. (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 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 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 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 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 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.

© 2008 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. Citi and Citi with Arc Design are trademarks and service marks of Citigroup Inc and 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. Where included in this report, MSCI sourced information is the exclusive property of Morgan Stanley Capital International Inc. (MSCI). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, disseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI, Morgan Stanley Capital International and the MSCI indexes are services marks of MSCI and its affiliates. 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
