Company In-Depth

2 January 2007 | 11 pages

Reliance Communications (RLCM.BO)

Buy: No Guts, No Glory

Rating change ☐
Target price change ☑
Estimate change ☑

- **Increasing estimates and target price** — Despite the constraints imposed by CDMA, subscriber adds have picked up in 2H FY07, but at the cost of ARPUs – as evident in 2Q FY07 KPIs. Our estimates for FY07-09 have been raised 4-6% to reflect accelerating subscriber adds and increased confidence in the wholesale voice business.

- **Hutch Essar (HE) acquisition could resolve many issues** — HE's assets fit in well with Reliance's increasingly unambiguous pro-GSM stance. Not only would it take RCOM to leadership position, but it would also obviate the potentially risky GSM overlay option and the associated spectrum constraints. Although potential cost benefits exist, which justify some control premium, risk of overpayment exists.

- **What if HE goes to another party** — HE's acquisition by, say, Vodafone, would mean RCOM would have to revert to GSM overlay, the economics of which depend on deals with vendors and the extent of infrastructure sharing. Parallel capex on both networks does create a risk of sub-optimality. Given RCOM's premium valuations, such an event could pose some downside risk.

- **Reiterating our Buy/Medium Risk rating** — We raise our target price for RCOM to Rs570 from Rs430 based on an EV/EBITDA of 11.2x FY09E, the imputed multiple at our DCF-based target price for Bharti. Potential clear leadership option associated with the Hutch opportunity and the lack of foreign headroom in Bharti could mean RCOM closely tracking Bharti's valuations.

Buy/Medium Risk	1M
Price (02 Jan 07)	Rs469.90
Target price	Rs570.00
from Rs430.00	
Expected share price return	21.3%
Expected dividend yield	0.4%
Expected total return	**21.7%**
Market Cap	Rs960,765M
	US$21,779M

Price Performance (RIC: RLCM.BO, BB: RCOM IN)

See page 9 for Analyst Certification and important disclosures.

Figure 1. Statistical Abstract

	Net Profit (RS. Mils)	P/E (x)	EV/EBITDA (x)	EBITDA (RS. Mils)
2006P	4,823	199.2	40.1	24,786
2007E	28,085	34.2	18.1	57,231
2008E	42,431	22.6	12.6	82,645
2009E	58,802	16.3	9.5	108,215

Source: Citigroup Investment Research estimates

Figure 2. Earnings Estimate Revision

	Net Profit	EPS	% Change	EBITDA
FY07E	28,085	13.7	5.3	57,231
Old	*26,662*	*13.0*		*56,826*
FY08E	42,431	20.8	5.9	82,645
Old	*40,060*	*19.6*		*79,870*
FY09E	58,802	28.8	4.3	108,215
Old	*56,375*	*27.57*		*103,828*

Source: Citigroup Investment Research estimates

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

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

Supriya Gupte[1]
supriya.gupte@citigroup.com

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

Fiscal year end 31-Mar	2005	2006	2007E	2008E	2009E
Valuation Ratios					
P/E adjusted (x)	na	199.2	34.2	22.6	16.3
EV/EBITDA adjusted (x)	na	na	18.1	12.8	9.7
P/BV (x)	na	8.2	6.8	5.4	4.2
Dividend yield (%)	na	0.0	0.4	0.6	0.9
Per Share Data (Rs)					
EPS adjusted	na	2.36	13.74	20.75	28.76
EPS reported	na	2.36	13.74	20.75	28.76
BVPS	na	57.48	68.96	86.34	110.60
DPS	na	0.00	2.00	3.00	4.00
Profit & Loss (RsM)					
Net sales	na	112,884	154,280	202,235	242,295
Operating expenses	na	-105,085	-120,976	-150,086	-171,296
EBIT	**na**	**7,799**	**33,304**	**52,148**	**70,999**
Net interest expense	na	-2,649	-3,426	-5,003	-4,179
Non-operating/exceptionals	na	0	0	0	0
Pre-tax profit	**na**	**5,150**	**29,878**	**47,146**	**66,820**
Tax	na	-327	-1,793	-4,715	-8,018
Extraord./Min.Int./Pref.div.	na	0	0	0	0
Reported net income	**na**	**4,823**	**28,085**	**42,431**	**58,802**
Adjusted earnings	na	4,823	28,085	42,431	58,802
Adjusted EBITDA	na	24,786	57,231	82,645	108,215
Growth Rates (%)					
Sales	na	na	36.7	31.1	19.8
EBIT adjusted	na	na	327.0	56.6	36.1
EBITDA adjusted	na	na	130.9	44.4	30.9
EPS adjusted	na	na	482.3	51.1	38.6
Cash Flow (RsM)					
Operating cash flow	**na**	**21,810**	**33,796**	**85,767**	**103,158**
Depreciation/amortization	na	16,987	23,927	30,497	37,216
Net working capital	na	0	-21,643	7,836	2,962
Investing cash flow	**na**	**0**	**-69,351**	**-75,336**	**-73,967**
Capital expenditure	na	0	-69,351	-75,336	-73,967
Acquisitions/disposals	na	0	0	0	0
Financing cash flow	**na**	**0**	**14,474**	**-13,903**	**-15,380**
Borrowings	na	0	22,500	-2,000	-2,000
Dividends paid	na	0	-4,600	-6,901	-9,201
Change in cash	**na**	**21,810**	**-21,082**	**-3,472**	**13,812**
Balance Sheet (RsM)					
Total assets	**na**	**319,738**	**349,262**	**399,699**	**458,168**
Cash & cash equivalent	na	60,038	38,956	35,484	49,296
Accounts receivable	na	16,807	19,285	19,662	20,191
Net fixed assets	na	214,263	259,687	304,526	341,278
Total liabilities	**na**	**202,223**	**208,262**	**223,168**	**232,036**
Accounts payable	na	89,956	72,786	89,692	100,560
Total Debt	na	92,976	115,476	113,476	111,476
Shareholders' funds	**na**	**117,515**	**141,000**	**176,531**	**226,132**
Profitability/Solvency Ratios (%)					
EBITDA margin adjusted	na	22.0	37.1	40.9	44.7
ROE adjusted	na	na	21.7	26.7	29.2
ROIC adjusted	na	na	15.5	18.5	21.6
Net debt to equity	na	28.0	54.3	44.2	27.5
Total debt to capital	na	44.2	45.0	39.1	33.0

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

Powered by: dataCentral

Hutch could be master stroke, otherwise revert to Plan A

Complementary footprint and RCOM's increasingly unequivocal pro-GSM stance make HE an ideal acquisition candidate for RCOM. While a control premium is likely, we believe that it may be worth it for RCOM given the benefits that can be derived.

- Time to market for GSM rollout would be shortened considerably.
- RCOM + Hutch would have a 36.8% market share of subscribers if the acquisition went through, much ahead of Bharti's 22.0% to date. While Indian wireless operators typically have EBITDA margins in the mid-30s irrespective of scale, we expect some synergies in operating costs that can be extracted, thus justifying the premium over current market valuations. For example, a control premium of say US$2-3bn could be justified if RCOM can extract savings of about ~US$200m (based on the current 12-month forward EV/EBITDA of 12.5x), which is just 3% of the combined RCOM-Hutch FY08E revenues.
- It could also reduce the risks associated with the alternative greenfield GSM rollout by RCOM, which could lead to sub-optimal cost structures (even if it is for a short while). This is of course assuming that the assimilation is smooth without any associated risks.

On the flip side, if Vodafone is successful in its bid for HE, it would be potentially negative for RCOM. Not only would RCOM then have to revert to the potentially risky GSM overlay route, its rollout plans would be at the mercy of spectrum constraints. It would also be negative for the stock as RCOM's current valuations (EV/EBITDA of 12.6x FY08E and P/E of 22.6x) are now at 5-10% premiums to Bharti's valuations in anticipation of a successful bid. While the competitive landscape would not change materially in case of a Vodafone-Hutch deal, potential collaboration between Vodafone and Bharti could create some polarization in the market structure.

Technologically challenged but running at full steam

RCOM's wireless business has done reasonably well given the constraints imposed by CDMA. While the bottlenecks might not go away completely in the immediate future, we think RCOM remains well positioned to capture growth given its wide and deep network as well as strong local brand.

Figure 3. Estimate Revisions

Year to 31 Mar	New			Old		
Rs m	FY07E	FY08E	FY09E	FY07E	FY08E	FY09E
Revenues	154,280	202,235	242,295	152,726	194,123	231,154
EBITDA	57,231	82,645	108,215	56,826	79,870	103,828
EBITDA %	37.1	40.9	44.7	37.2	41.1	44.9
EBITDA upgrade (%)	0.7%	3.5%	4.2%	NA	NA	NA
Capex	70,656	75,336	73,967	67,902	75,604	69,885
EPS	13.74	20.75	28.76	13.04	19.59	27.57
EPS upgrade (%)	5.3%	5.9%	4.3%	NA	NA	NA

Source: Company Reports and Citigroup Investment Research estimates

Figure 4. Segmental Forecasts (Rs m)

Profit & Loss	FY06	FY07E	FY08E	FY09E
Total Revenue	**112,884**	**154,280**	**202,235**	**242,295**
Wireless	74,070	110,830	157,636	198,762
Global Business	59,048	72,726	82,367	87,527
Broadband	5,128	11,735	15,990	20,414
EBITDA	**24,786**	**57,231**	**82,645**	**108,215**
Wireless	22,411	40,090	58,155	75,959
Global Business	5,922	13,446	18,102	22,657
Broadband	746	4,624	7,069	10,006
EBITDA Margin (%)	**22.0**	**37.1**	**40.9**	**44.7**
Wireless (%)	30.3	36.2	36.9	38.2
Global Business (%)	10.0	18.5	22.0	25.9
Broadband (%)	14.5	39.4	44.2	49.0

Source: Company Reports and Citigroup Investment Research estimates

Reliance Communications

Company description

RCVL is an integrated player in the Indian telecom sector. The company was listed on the Indian stock exchanges as part of the scheme of de-merger of Reliance Industries Ltd (RIL). It 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. The company plans to launch IPTV and retail broadband in 2007. The business of RCVL is organized into 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 business for both retail and enterprise.

Investment thesis

We rate RCOM as Buy/Medium Risk (1M) with a target price of Rs570. Continued expansion of the wireless market and RCOM's ability to capture market share profitably will, in our view, be the recurring theme for the stock. The wireless business has demonstrated higher operating leverage in the recent past and has maintained similar return parameters despite lower revenue yields. Competitive pressures, though intense, should continue to be rational. RCOM is also planning a GSM overlay on its existing CDMA network; while there is market rationale for this (GSM has lower-priced handsets), we think the economic rationale would be determined by the deal from vendors as well as the extent of infrastructure-sharing possible. Additionally, most regulatory concerns appear behind us, and news flow now is likely to be positive.

The company has yet to realize the benefits of full utilization of its network infrastructure (especially in broadband), and we expect significant strengthening of margins as traffic increases across segments. We thus expect RCOM to register an EBITDA CAGR of 63.4% for FY06-09E.

Valuation

In valuing Indian wireless plays, we use DCF as our primary methodology given the back-ended nature of profits and cash flow. In the case of RCOM, however, we use EV/EBITDA in the absence of a detailed balance sheet, which is awaiting reorganization.

RCOM's 12-month target price of Rs570 is based on 11.2x FY09E EV/EBITDA, similar to the implied target EV/EBITDA for Bharti based on our DCF estimate. RCOM's valuation multiples are likely to closely track Bharti's due to the liquidity overflow from the latter, notwithstanding the risk of technology transition. In addition, the risks associated with technology shift to GSM may get significantly mitigated in case RCOM makes a successful bid for HE, besides according it a clear market leadership. As a secondary valuation methodology, we apply a target P/E of 27.5x FY08E for a fair value of Rs570. We believe a premium to the Sensex's target 12-month forward P/E of 20.0x is justified given our projected earnings growth for RCOM of 51% yoy for FY08E and a 45% CAGR for FY07-09E against estimated market earnings growth of 25% for FY07E and 15% for FY08E.

Risk

Our quantitative risk-rating system, which tracks 260-day share price volatility, assigns a High Risk rating to RCOM, but we believe a Medium Risk rating is more appropriate. RCOM has been de-merged from Reliance Industries, and its shareholding at the time of listing mirrored the holding of RIL. The stock is therefore unlikely to have risk factors that are typical of newly listed companies that have more limited management and operating track records. Besides, growth in the telecom sector accords visibility to RCOM's prospects – characteristics that are similar to those of its peers. However, we believe its evolving financial history and risks pertaining to GSM overlay warrant a risk rating higher than that which we assign to Bharti (Low Risk).

Operationally, the risks facing RCOM are slightly higher than for Bharti due to the proposed technology shift. Also, RCOM's present CDMA-led business model leaves open the possibility of the re-emergence of handset subsidies, which the company has brought under control.

Downside risks to our target price include smaller-than-expected market share, lower-than-anticipated operating leverage (especially for FY07), cost-overruns in GSM overlay, regulatory and competition risks, un-remunerative capex, delays in the ongoing re-organization and more telecom-related paper entering the market.

Figure 5. Income Statement (Rs m)

Year to 31 March	FY06	FY07E	FY08E	FY09E
Total Revenue	**112,884**	**154,280**	**202,235**	**242,295**
Total Cost	(88,098)	(97,049)	(119,589)	(134,080)
Access & IUC	(31,012)	(66,040)	(80,001)	(90,143)
License Fees	(8,559)	(10,723)	(15,313)	(19,523)
Other Operating Exp	(48,527)	(61,297)	(78,034)	(88,822)
EBITDA	**24,786**	**57,231**	**82,645**	**108,215**
EBITDA Margin (%)	22.0	37.1	40.9	44.7
Net Interest	(2,649)	(3,426)	(5,003)	(4,179)
Depreciation & Amortization	(16,987)	(23,927)	(30,497)	(37,216)
PBT	5,150	29,878	47,146	66,820
Tax	(327)	(1,793)	(4,715)	(8,018)
PAT	4,823	28,085	42,431	58,802
No. of Shares	2,045	2,045	2,045	2,045
EPS	2.4	13.7	20.8	28.8
DPS	-	2.0	3.0	4.0

Source: Company Reports and Citigroup Investment Research estimates

Figure 6. Balance Sheet

As at 31 March	FY06	FY07E	FY08E	FY09E
Equity	10,223	10,223	10,223	10,223
Reserves and Surplus	107,292	130,777	166,308	215,909
Shareholders funds	117,515	141,000	176,531	226,132
Debt	92,976	115,476	113,476	111,476
Secured Loans	87,185	109,685	107,685	105,685
Unsecured Loans	5,791	5,791	5,791	5,791
Current Liabilities	89,956	72,786	89,692	100,560
Provisions	19,291	20,000	20,000	20,000
Total Liabilities	**319,738**	**349,262**	**399,699**	**458,168**
Fixed Assets	230,531	301,187	376,524	450,491
Accumulated Depreciation	(47,573)	(71,500)	(101,997)	(139,213)
Net Fixed Assets	182,958	229,687	274,526	311,278
CWIP	31,305	30,000	30,000	30,000
Investments	121	121	121	121
Cash	60,038	38,956	35,484	49,296
Current Assets	45,316	50,498	59,568	67,474
Inventories	4,076	4,500	5,000	5,500
Debtors	16,807	19,285	19,662	20,191
Other Current Assets	765	1,000	1,200	1,400
Loans & Advances	23,668	25,713	33,706	40,383
Total Assets	**319,738**	**349,262**	**399,699**	**458,168**

Source: Company Reports and Citigroup Investment Research estimates

Figure 7. Cash Flow Statement

Year to 31 Mar	FY07E	FY08E	FY09E
PAT	28,085	42,431	58,802
Add: Depreciation	23,927	30,497	37,216
Change in NWC	(21,643)	7,836	2,962
Add: Interest	3,426	5,003	4,179
Operating Cash Flow	33,796	85,767	103,158
Capex	69,351	75,336	73,967
Free Cash Flow	(35,556)	10,431	29,191
Cash flow into investments	(69,351)	(75,336)	(73,967)
Increase in debt	22,500	(2,000)	(2,000)
Increase in Equity	-	-	-
Less: Interest	(3,426)	(5,003)	(4,179)
Less: Dividend	(4,600)	(6,901)	(9,201)
Financial cash flow	14,474	(13,903)	(15,380)
Cash year begin	60,038	38,956	35,484
Cash generated	(21,082)	(3,472)	13,812
Cash year end	38,956	35,484	49,296

Source: Citigroup Investment Research estimates

Bharti (BRTI.BO - Rs629.50; 1L)

Valuation

Our 12-month forward target price of Rs750 is based on DCF, which suggests a fair value of Rs749 as of March 2008. This is based on WACC of 10.8%, terminal growth rate of 3.5% and beta of 0.9 (implying a terminal EV/EBITDA multiple of 8.0x). 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 2009-10. Our target price represents a FY09E P/E of 20.0x, P/CEPS of 12.5x and EV/EBITDA of 11.2x. The imputed target PER of 25.0x FY08E is at 25% premium to the broad market PER (20.0 FY08E at the higher end of Citigroup's Sensex target of 16,000). This we believe is justified by above-average earnings growth (FY06-09E EBITDA CAGR of 45.3% and 46.5% in EPS), improved earnings visibility and relative insulation from macro risks (interest rates and political risks).

Risk

Our quantitative risk-rating system rates Bharti 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) the strategic shareholding of SingTel and Vodafone leaves us comfortable with execution issues and initiatives. The risks that could prevent the stock from reaching our target price include competition-led tariff pressures, un-remunerative capex, overall market downside, and more telecom related paper entering the market.

Analyst Certification Appendix A-1

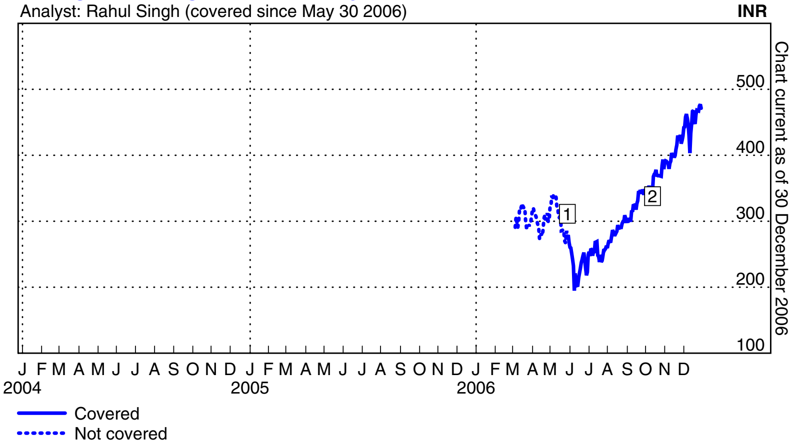
We, Rahul Singh and Anand Ramachandran, CFA, research analysts and the authors of this report, hereby certify that all of the views expressed in this research report accurately reflect our personal views about any and all of the subject issuer(s) or securities. We also certify that no part of our compensation was, is, or will be directly or indirectly related to the specific recommendation(s) or view(s) in this report.

IMPORTANT DISCLOSURES

Reliance Communications (RLCM.BO)

Ratings and Target Price History - Fundamental Research

Analyst: Rahul Singh (covered since May 30 2006)



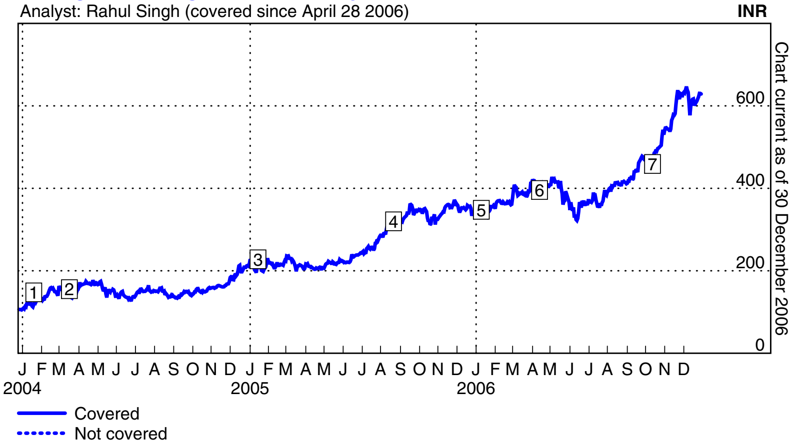
#	Date	Rating	Target Price	Closing Price
1:	29 May 06	1M	360.00	276.25
2:	12 Oct 06	1M	*430.00	345.95

*Indicates change.

Bharti Airtel Limited (BRTI.BO)

Ratings and Target Price History - Fundamental Research

Analyst: Rahul Singh (covered since April 28 2006)



#	Date	Rating	Target Price	Closing Price
1:	20 Jan 04	1H	*160.00	118.40
2:	17 Mar 04	1H	*220.00	146.15
3:	14 Jan 05	*1M	*260.00	210.30
4:	22 Aug 05	1M	*400.00	306.10
5:	10 Jan 06	1M	*450.00	339.25
6:	13 Apr 06	1M	*500.00	395.95
7:	12 Oct 06	*1L	*600.00	475.65

*Indicates change.

Rahul Singh holds a long position in the shares of Bharti Airtel Limited.

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

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

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

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: Bharti Airtel Limited and Reliance Communications.

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: Bharti Airtel Limited and 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 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. 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.

Citigroup Investment Research Ratings Distribution

Data current as of 31 December 2006	Buy	Hold	Sell
Citigroup Investment Research Global Fundamental Coverage (3106)	43%	41%	15%
% of companies in each rating category that are investment banking clients	45%	41%	34%
India -- Asia Pacific (118)	58%	14%	28%
% of companies in each rating category that are investment banking clients	48%	50%	39%

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.

OTHER DISCLOSURES

The subject company's share price set out on the front page of this Product is quoted as at 02 January 2007 10:25 AM on the issuer's primary market.

Citigroup Global Markets Inc. and/or its affiliates has a significant financial interest in relation to Bharti Airtel Limited and Reliance Communications. (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 5% or more of any class of common equity securities of Bharti Airtel Limited.

Citigroup Global Markets Inc. or its affiliates holds a long position in any class of common equity securities of Bharti Airtel Limited.

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 Citigroup Wealth Advisors 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. 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. If the Product was prepared by Citigroup Investment Research and distributed in Japan by Nikko Citigroup Ltd., it is being so distributed under license. Nikko Citigroup Limited is regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Akasaka Park Building, 2-20, Akasaka 5-chome, Minato-ku, Tokyo 107-6122. 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 Wartosciowych 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 Gasheka Street, 125047 Moscow. The Product is made available in Singapore through Citigroup Global Markets Singapore Pte. Ltd., a Capital Markets Services Licence holder, and regulated by Monetary Authority of Singapore. 1 Temasek Avenue, #39-02 Millenia Tower, Singapore 039192. The Product is made available by The Citigroup Private Bank in Singapore through Citibank, N.A., Singapore branch, a licensed bank in Singapore that is regulated by Monetary Authority of Singapore. Citigroup Global Markets (Pty) Ltd. is incorporated in the Republic of South Africa (company registration number 2000/025866/07) and its registered office is at 145 West Street, Sandton, 2196, Saxonwold. Citigroup Global Markets (Pty) Ltd. is regulated by JSE Securities Exchange South Africa, South African Reserve Bank and the Financial Services Board. The investments and services contained herein are not available to private customers in South Africa. The Product is made available in Taiwan through Citigroup Global Markets Inc. (Taipei Branch), which is regulated by Securities & Futures Bureau. No portion of the report may be reproduced or quoted in Taiwan by the press or any other person. No. 8 Manhattan Building, Hsin Yi Road, Section 5, Taipei 100, Taiwan. The Product is made available in Thailand through Citicorp Securities (Thailand) Ltd., which is regulated by the Securities and Exchange Commission of Thailand. 18/F, 22/F and 29/F, 82 North Sathorn Road, Silom, Bangrak, Bangkok 10500, Thailand. The Product is made available in United Kingdom by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. This material may relate to investments or services of a person outside of the UK or to other matters which are not regulated by the FSA and further details as to where this may be the case are available upon request in respect of this material. Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB. The Product is made available in United States by Citigroup Global Markets Inc, which is regulated by NASD, NYSE and the US Securities and Exchange Commission. 388 Greenwich Street, New York, NY 10013. Unless specified to the contrary, within EU Member States, the Product is made available by Citigroup Global Markets Limited, which is regulated by Financial Services Authority. Many European regulators require that a firm must establish, implement and make available a policy for managing conflicts of interest arising as a result of publication or distribution of investment research. The policy applicable to Citigroup Investment Research's Products can be found at www.citigroupgeo.com. Compensation of equity research analysts is determined by equity research management and Citigroup's senior management and is not linked to specific transactions or recommendations. The Product may have been distributed simultaneously, in multiple formats, to the Firm's worldwide institutional and retail customers. The Product is not to be construed as providing investment services in any jurisdiction where the provision of such services would be illegal. Subject to the nature and contents of the Product, the investments described therein are subject to fluctuations in price and/or value and investors may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. Certain investments contained in the Product may have tax implications for private customers whereby levels and basis of taxation may be subject to change. If in doubt, investors should seek advice from a tax adviser. Advice in the Product 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.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST