Company report

**TMT**
**Diversified Telecoms**
**Equity – India**

HSBC Global Research

# Reliance Communication

## Benefits of unlocking and diversification

- **RCOM is a strong, well-financed, entrepreneurial integrated operator in the fastest growing telecoms market in the world, generating a 2007-09e earnings CAGR of 46%**
- **RCOM faces a complex and challenging shift to a GSM-centric network strategy, which should yield significant long-term benefits at the expense of short-term earnings**
- **We initiate on RCOM with a Overweight (V) rating and sum of the parts (SOTP) target price of INR624**

**Overweight (V)**

| | |
|---|---|
| **Target price (INR)** | **624.00** |
| **Share price (INR)** | **477.10** |
| **Potential total return (%)** | **30.8** |

| Mar | 2007a | 2008e | 2009e |
|---|---|---|---|
| HSBC EPS | 14.02 | 21.67 | 34.01 |
| HSBC PE | 34.0 | 22.0 | 14.0 |
| **Performance** | **1M** | **3M** | **12M** |
| Absolute (%) | 13.4 | 0.5 | 57.5 |
| Relative^ (%) | 6.8 | 3.4 | 36.8 |

Note: (V) = volatile (please see disclosure appendix)

**3 May 2007**

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## Indian growth dynamics

The Indian telecoms space is in the midst of an unprecedented growth phase, as capex flows in seeking to rapidly close a chronic infrastructure gap. This surge in capex and the resulting expansion in network coverage is driving subscriber growth of 6-7m subscribers a month. The combination of the lowest capex prices (USD35-45 a subscriber), lowest subscriber acquisition costs (USD1-2 for GSM), and the lowest per minute rates in the world (USD 0.1-0.2 cents) creates one of the best structural growth stories in GEM telcos.

### RCOM beneficiary of growth and unlocking

We believe that RCOM's shift towards a GSM centric growth strategy is good for the long term as the Indian market is largely GSM centric. RCOM is pursuing a two point agenda of increasing market share and monetising its assets. It plans to unlock the value of its tower business and Flag Telecom in the next six months. We incorporate the asset revaluation impact of the separate tower business at INR97 per share using a Bharti style approach. Given the current disclosures we are unable to assign value to the Flag business but note it is part of our DCF based SOTP value of the Global business at INR 89 per share.

**Valuation and risks**

We value RCOM using a DCF based SOTP approach, giving us a price target of INR624 per share, suggesting c31% potential total return from current levels. The key downside risks for the Indian telecoms space are spectrum constraints, which could restrict network capacity expansion, and a de-rating of Indian domestic consumption play stocks, given high earnings expectations built into current multiples. The key Reliance Communication (RCOM)-specific risks are a slower-more expensive transition to GSM, potential surprises with their un-released annual report, an aggressive international expansion strategy.

| | |
|---|---|
| Index^ | BOMBAY SE IDX |
| Index level | 13872.37 |
| RIC | RLCM.NS |
| Bloomberg | RCOM IN |

Source: HSBC

| | |
|---|---|
| Enterprise value (INRm) | 1142264 |
| Free float (%) | |
| Market cap (USDm) | 23,684 |
| Market cap (INRm) | 975,486 |

Source: HSBC

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# Financials & valuation

**Financial statements**

| Year to | 03/2007a | 03/2008e | 03/2009e | 03/2010e |
|---|---|---|---|---|
| **Profit & loss summary (INRm)** | | | | |
| Revenue | 144,683 | 202,923 | 284,894 | 353,257 |
| EBITDA | 57,209 | 83,444 | 118,649 | 148,930 |
| Depreciation & amortisation | -24,956 | -31,662 | -38,117 | -47,703 |
| Operating profit/EBIT | 32,253 | 51,783 | 80,531 | 101,226 |
| Net interest | -4 | -1,710 | -1,056 | -1,029 |
| PBT | 32,249 | 50,072 | 79,475 | 100,198 |
| HSBC PBT | 32,552 | 50,072 | 79,475 | 100,198 |
| Taxation | -611 | -5,758 | -9,934 | -13,026 |
| Net profit | 31,638 | 44,314 | 69,541 | 87,172 |
| HSBC net profit | 27,615 | 44,314 | 69,541 | 87,172 |
| **Cash flow summary (INRm)** | | | | |
| Cash flow from operations | 75,334 | 78,840 | 118,480 | 143,815 |
| Capex | -64,249 | -102,475 | -113,915 | -109,357 |
| Cash flow from investment | -64,375 | -102,475 | -113,915 | -109,357 |
| Dividends | -985 | -1,023 | 0 | 0 |
| Change in net debt | 31,356 | 24,658 | -4,565 | -34,458 |
| FCF equity | -7,394 | -25,126 | 389 | 31,367 |
| **Balance sheet summary (INRm)** | | | | |
| Intangible fixed assets | 0 | 0 | 0 | 0 |
| Tangible fixed assets | 330,423 | 401,236 | 477,034 | 538,688 |
| Current assets | 196,263 | 64,166 | 68,150 | 98,178 |
| Cash & others | 137,200 | 4,355 | 4,355 | 31,127 |
| Total assets | 538,611 | 477,317 | 557,100 | 648,781 |
| Operating liabilities | 43,173 | 45,742 | 60,549 | 72,744 |
| Gross debt | 291,451 | 183,264 | 178,699 | 171,013 |
| Net debt | 154,251 | 178,909 | 174,344 | 139,886 |
| Shareholders funds | 203,928 | 248,242 | 317,783 | 404,955 |
| Invested capital | 346,313 | 415,305 | 480,280 | 532,995 |

**Ratio, growth and per share analysis**

| Year to | 03/2007a | 03/2008e | 03/2009e | 03/2010e |
|---|---|---|---|---|
| **Y-o-y % change** | | | | |
| Revenue | 34.4 | 40.3 | 40.4 | 24.0 |
| EBITDA | 125.7 | 45.9 | 42.2 | 25.5 |
| Operating profit | 303.6 | 60.6 | 55.5 | 25.7 |
| PBT | 575.5 | 55.3 | 58.7 | 26.1 |
| HSBC EPS | 923.6 | 54.6 | 56.9 | 25.4 |
| **Ratios (%)** | | | | |
| Revenue/IC (x) | 0.5 | 0.5 | 0.6 | 0.7 |
| ROIC | 9.4 | 12.0 | 15.7 | 17.4 |
| ROE | 17.2 | 19.6 | 24.6 | 24.1 |
| ROA | 7.6 | 9.1 | 13.6 | 14.6 |
| EBITDA margin | 39.5 | 41.1 | 41.6 | 42.2 |
| Operating profit margin | 22.3 | 25.5 | 28.3 | 28.7 |
| EBITDA/net interest (x) | 14302.3 | 48.8 | 112.4 | 144.8 |
| Net debt/equity | 75.6 | 72.1 | 54.9 | 34.5 |
| Net debt/EBITDA (x) | 2.7 | 2.1 | 1.5 | 0.9 |
| CF from operations/net debt | 48.8 | 44.1 | 68.0 | 102.8 |
| **Per share data (INR)** | | | | |
| EPS reported (fully diluted) | 16.06 | 21.67 | 34.01 | 42.64 |
| HSBC EPS (fully diluted) | 14.02 | 21.67 | 34.01 | 42.64 |
| DPS | 0.50 | 0.00 | 0.00 | 0.00 |
| NAV | 103.52 | 121.41 | 155.43 | 198.06 |

**Key forecast drivers**

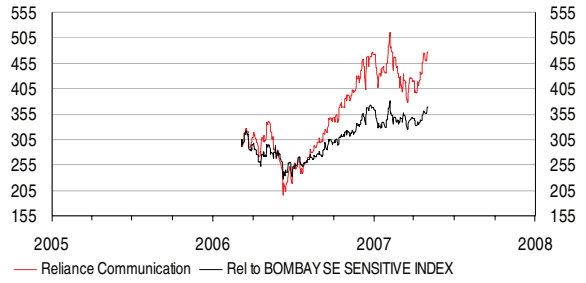
| Year to | 03/2007a | 03/2008e | 03/2009e | 03/2010e |
|---|---|---|---|---|
| Wireless ARPU ( INR ) | 354 | 351 | 339 | 338 |
| Wireless EBITDA (%) | 37.1% | 38.2% | 38.5% | 38.8% |
| BB ARPL ( INR ) | 2177 | 1699 | 1164 | 1562 |
| BB EBITDA (%) | 45.4% | 48% | 47% | 46% |

**Valuation data**

| Year to | 03/2007a | 03/2008e | 03/2009e | 03/2010e |
|---|---|---|---|---|
| EV/sales | 7.7 | 5.6 | 4.0 | 3.1 |
| EV/EBITDA | 19.5 | 13.7 | 9.6 | 7.4 |
| EV/IC | 3.2 | 2.8 | 2.4 | 2.1 |
| PE* | 34.0 | 22.0 | 14.0 | 11.2 |
| P/NAV | 4.6 | 3.9 | 3.1 | 2.4 |
| FCF yield (%) | -0.8 | -2.6 | 0.0 | 3.3 |
| Dividend yield (%) | 0.1 | 0.0 | 0.0 | 0.0 |

Note: * = Based on HSBC EPS (fully diluted)

**Price relative**




Source: HSBC

Note: price at close of 01 May 2007

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# Executive Summary

- We like RCOM's shift towards a GSM-centric growth strategy, but believe the market may be underestimating the cost and complexity based on limited guidance from management
- We like the Indian telco story, but prefer Bharti to RCOM given better network coverage, higher margins, a cleaner network upgrade path and less earnings volatility
- We initiate coverage of RCOM with an Overweight (V) rating and a SOTP-based price target of INR624, for an implied 2008 target PE of 29x or a 18% discount to Bharti on FY08e PE

## Investment thesis

RCOM is the number 2 player in the fragmented Indian wireless space, with a national footprint, an entrepreneurial management team, and a strong balance sheet. RCOM is committed to the Indian growth strategy and plans to spend USD2.5bn in capex in 2007. We like the Indian telecoms space in both a regional and a domestic context and believe RCOM is very well-placed to secure 20% plus market share. The key strategic issue for RCOM is its current reliance on CDMA technology, representing 88% of its existing subscriber base. RCOM has indicated its intention to migrate to GSM as its core network technology, due mostly to lower handset costs. The company has declined to provide any detailed guidance on the cost, timing, strategy, and potential earnings impact of this network transition. We have built a gradual transition to GSM into our base case forecast for RCOM. We initiate on RCOM with a Overweight (V) rating and an SOTP-based target price of INR624.

## Company overview

RCOM is a high-growth play on the Indian domestic consumption story with a diversified business model combining wireless, alternative carrier local access, DTH-IPTV and broadband, corporate data and enterprise services, and undersea fibre optic cable. RCOM was created in June 2006, via the break-up of Indian conglomerate Reliance Industries. Anil Ambani (Chairman) took control of the telecommunications business, while brother Mukesh Ambani took the energy and chemicals unit. In this context, RCOM is still an evolving company that is restructuring/re-aligning its existing business units. Mr. Ambani is the driving force behind the company and RCOM has been on the leading edge of key trends like the push for the creation of an independent transmission towers business. The combination of Mr. Ambani's significant personal stake in the company and the absence of strategic partners

create a strong alignment of majority and minority interests at RCOM.

## CDMA versus GSM

They key long-term strategic issue for RCOM is the planned transition from a CDMA-centric to a GSM centric wireless network strategy. RCOM operates a combination of CDMA and GSM on a national basis, but has decided to shift toward GSM due mostly to lower handset costs. Handset pricing is the key driver of subscriber acquisition costs (SAC), which is in turn they key driver of profitability for pre-paid, low ARPU GEM wireless operators. RCOM's move away from CDMA is part of a broader re-assessment by operators in Brazil, China, Korea, and Australia. We agree with RCOM's strategic decision, but believe the market may be underestimating the cost and complexity of the transition.

Indian GSM operators, such as Bharti (BHARTI.IN, INR 812 and OW) and Hutch-Essar (we have a Neutral rating on the parent HTIL) have much lower SACs because they have no role in handset procurement. GSM customers acquire handsets on their own, often very low cost refurbished handsets, and purchase a pre-paid SIM card from GSM operators. The SIM card provides the customer identity, including the telephone number and account data, and can be used in any unlocked GSM phone. In contrast, RCOM buys CDMA handsets, carries the inventory, and sells the handsets directly to customers at subsidized rates.

We have built a gradual transition towards a GSM-centric network strategy and the evolution of CDMA in a niche, urban 3G platform into our base case forecasts. RCOM provides limited guidance on their network migration strategy, so we have made a series of assumptions on cost, timing, and market segmentation. We assume that RCOM will receive GSM spectrum in the 1800 MHz spectrum band, roll-out a nationwide network in 2010, channel all new subs into GSM, and gradually migrate existing CDMA subs over as it replaces handsets. We assume RCOM will keep high-value, post-paid, data-centric users on the CDMA network. We believe RCOM will shift towards a China Unicom-style dual-network strategy of using CDMA for post-paid 3G and GSM for pre-paid 2G.

## RCOM versus Bharti

A key question for investors is the relative valuation and attractiveness of RCOM versus Bharti. We believe Bharti is the best telco operator and stock in India and have highlighted it as our top pick in the region. Like Bharti, RCOM is an aggressive private operator with a national footprint, a strong balance sheet and an entrepreneurial culture. RCOM has a more diversified business model then Bharti and a more decisive management decision-making process. Both companies have significant tower assets, an aggressive tower roll-out plan, and are likely to be the two dominant players in the Indian towers space. Bharti enjoys a significant first mover advantage in terms of network quality and is better positioned vis-à-vis the rural market opportunity. Bharti also operates a uniform GSM network in attractive spectrum bands and is well-positioned to receive additional spectrum allocations.

## Tower business catalyst

RCOM plans to spin off its tower business in the next six months. RCOM management has announced that it will look for options such as infusion of strategic partners, a potential listing, and infusion of PE funds or private placement in an attempt to unlock the value of the tower assets. RCOM management has indicated a time frame of six months in which it expects to unlock the value of the tower company. We expect this to have an asset revaluation kind of impact on RCOM's valuations. We are incorporating the asset

**RCOM catalysts view**

| Key catalysts | Action plan | Our view |
|---|---|---|
| Listing of FLAG | RCOM plans to list Flag on the London Stock Exchange | Given the current disclosures we are unable to value Flag but we are of the view that potential listing will improve disclosures and will help RCOM to unlock value |
| Spin-off Tower Company | RCOM plans to unlock tower company and is looking at options namely strategic partner infusion, listing, PE fund infusion or private placement | We value the tower company in the current format at USD2 bn |
| Release of GSM spectrum | RCOM intends to make a GSM shift in 16 circles where it runs only CDMA | Our base case assumes a GSM spectrum release by late 2009 or early 2010 and expect GSM operations in 16 circles by 2011 |
| Introduction of MNP (Mobile Number portability) | With a GSM shift RCOM intends to capture the early adopters with the existing GSM subscribers | We believe MNP will aid RCOM to capture high ARPU customers and expect MNP latest by 2010 |

Source: HSBC

revaluation impact of the creation of a separate tower business at INR97 per share

## Valuation and risks

RCOM is a challenging company to value at this juncture, given the diverse asset-business mix, the planned spin-off of fibre optic assets, and the lack of guidance on its CDMA-GSM transition strategy. We are valuing RCOM using DCF based SOTP approach. Our DCF-based SOTP approach gives us a fair value of INR624 per share. Our price target suggests c31% potential total return from current levels. As this is above the Neutral band for Indian stocks of +/- 10ppts around our hurdle rate of 13.5%, we rate the stock Overweight (V).

The key risks to RCOM are delays in acquiring GSM spectrum, a structural decline in incremental market share and operating margins due to CDMA, and surprises on disclosure.

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# Quick view of India telecom and RCOM

- Indian mobile space had 166.05m subscribers at end-March 2007, registering annual growth of 68%
- Rural India focus and hiving off tower assets to be the big themes in the Indian wireless space for 2007-08
- RCOM has diversified business model with good mix of wireless and global business

## Indian telecom sector

**Mobile market share (Feb 2007)**

| Operator | Scope of services | Technology | Market share (Feb 2007) |
|---|---|---|---|
| **Pan-Indian operators** | | | |
| BSNL-MTNL | Integrated player | GSM& CDMA | 17.6% |
| Bharti-Airtel | Integrated player | GSM | 22.2% |
| Reliance | Integrated player | GSM& CDMA | 20.3% |
| TATA Indicom | Integrated player | CDMA | 9.7% |
| **Regional operators** | | | |
| Hutch-Essar | Mobile only | GSM | 15.9% |
| BPL | Mobile only | GSM | 0.7% |
| IDEA | Mobile only | GSM | 8.5% |
| Aircel | Mobile only | GSM | 3.2% |
| SPICE | Mobile only | GSM | 1.6% |
| Others | Integrated player | GSM& CDMA | 0.3% |

Source: COAI & HSBC

The subscriber base for telephony services (including both wire-line and wireless) recorded an addition of 66.51m subscribers during the financial year 2006-07 as compared to 41.91m in 2005-06, registering an increase of 59% in annual growth. The wireless (mobile) space recorded an annual growth of 68% the wire-line space recorded a decline of 1.82%. This is the highest ever increase in subscriber base during a financial year after the opening up of the telecom sector for competition. On the back of catalysts like regulatory reforms, infrastructure sharing, low priced handsets, falling infrastructure costs and strong execution, the Indian telecoms space has been consistently beating expectations.

### Low cost business models

India is a very unusual case of a being one of the most competitive and under-developed telecoms markets in the world. The combination of low penetration and low margins is a direct result of the industry structure. India has a large number of players, focused on a small market segment, paying a heavy license/tax burden. Despite being faced by low ARPUs and low revenue per minutes, Indian operators, on account of their better execution skills, have managed EBITDA margins of c38%. Reference can be made to Bharti Airtel (BHARTI.IN, INR 812 Overweight), which has ensured a consistent improvement in wireless EBITDA margins from 35% in March 2005 to c39% by March 2006. Further, Reliance Communications has suggested an improvement

of wireless EBITDA margins from c32% in December 2005 to c39% by March 2006.

## India versus China

One of the key issues for analysts and investors in the Indian telecoms space is the relative performance with China. In fact, the India versus China issue has been a significant factor in the evolution of Indian development policy. Like other government agencies-industry regulators, the Telecom Regulatory Authority of India (TRAI) has released a series of policy papers highlighting the need to close the infrastructure gap with China. We believe it is critical for investors to look beyond the headline valuation multiples and understand the structural differences between the Indian and Chinese telecom markets. For the purposes of this comparison, we focus on comparing the three major listed Indian telcos, Bharti, Hutch-Essar, and RCOM, to the four listed Chinese telecom operators, China Mobile (941.HK,HKD71, Underweight), China Unicom (762.HKD11.5,Neutral), China Netcom (906.HK, HKD19.1, Underweight), and China Telecom (728.HK ,HKD3.7,Underweight). We prefer the Indian telecoms market to the Chinese telecoms market as we believe the benefits of full private sector management and the strong alignment of majority-minority shareholder interests outweigh the costs of lower operating margins and lower disposable incomes.

The first fundamental difference between the Indian and Chinese telecom markets is the relationship of the companies to the government. The four listed Chinese telecom companies are owned, financed, regulated, and managed by the Chinese central government. The Chinese management teams are government employees who serve at the discretion of the government and are rotated in-out of the Chinese telecom regulator and between the companies. The companies note that they serve both the Chinese state and minority investors at the same time. We believe there is a potential conflict of interest between these two roles, as the Chinese government still owns roughly 80% of these companies and views them as policy tools. In contrast, the three major Indian telco companies are owned, financed, and managed by the private sector and are not policy instruments of the Indian government. The Indian government's focus is on creating a set of incentives to channel investment into the telecoms sector. We believe this differential in industry structure will lead to over-investment and lower returns on capital in China versus India.

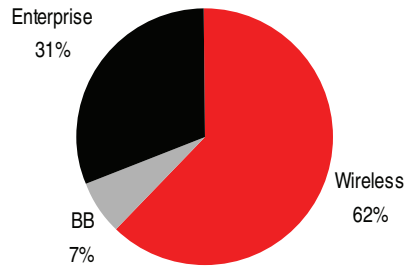
The second key differential between the Indian and Chinese telco markets is the relationship between the telecoms services and telecom equipment segments. We have a regional view that countries with strong domestic telecom equipment segments tend to distort operator capex patterns. In markets such as Korea, domestic operators tend to direct most of their equipment contracts to domestic vendors and to buy multiple-duplicative networks. The policy idea is that indirect subsidies to domestic vendors increase their ability to compete in the global market, increasing exports of telecom gear. We believe China is moving towards a Korean-style model of the integrated management of the telecom equipment and services spaces. Chinese domestic vendors such as Huawei (unlisted), Datang (600198CH, NR), Putian (CHPZCH, NR), and Comba (2342.HK, NR) are likely to be the key beneficiaries of the surge in 3G capex in 2007-10. In contrast, India has a fairly small and under-developed domestic telecom equipment manufacturing base. We believe the lack of a strong domestic vendor community is likely to increase capex efficiency and returns on capital in India.

## Spectrum the key risk

The Indian telecom space is spectrum-starved and the present spectrum allocation in the 2G space is below international standards. The operators currently have spectrum ranging from 2 x 4.4 MHz to 2x 10 MHz for GSM operators and 2x 2.5 MHz to 2 x 5 MHz for CDMA operators. This is below the international average allocation of 2x20 MHz for GSM operators and 2x14 MHz for CDMA operators. We believe delay in the release of additional 2G spectrum will not only see operators facing a congested network, but perhaps losing out on additional subscriber growth as well.

## RCOM – quick round-up

**RCOM segment wise gross revenue break up**




Revenue considered above is of 2007 and doesn't consider eliminations
Source: HSBC estimates

RCOM has pan-Indian operations with both CDMA and GSM networks. In eight circles, it runs a dual network with both GSM and CDMA. It enjoys a market share of 20.3% in the Indian wireless arena with c34m subscribers. As part of its broader wireless strategy, it has shifted to a GSM-centric growth approach. The key driver will be the release of additional spectrum.

RCOM has an equally attractive global and enterprise business with two big cable operators, Flag and Falcon. The global and enterprise business accounts for c38% of overall revenues. RCOM has plans to list Flag on the London Stock Exchange in the next few months and is a part of RCOM value unlocking strategy.

RCOM also has plans to enter DTH and IPTV services in an attempt to add an additional revenue spectrum. The DTH space is competitive with presence of Tata Sky (not listed) and Zee group's Dish TV (not listed). Further, Bharti also has plans to enter DTH. Even the IPTV segment is competitive with BSNL and MTNL already working on IPTV trials and Bharti also planning to enter the IPTV segment.

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# RCOM vs Bharti

- Bharti has pursued a coverage-based market expansion strategy, and lately RCOM is likely to follow suit with its GSM shift
- Spectrum is the biggest risk in Indian wireless; RCOM, with both CDMA and GSM spectrum, may benefit in short to medium term
- We prefer Bharti over RCOM, however have a positive view on RCOM and expect it to benefit from its diversification approach

**Bharti vs. RCOM – Quick round-up**

| Parameters | Bharti - market leader | RCOM - No 2 player |
|---|---|---|
| Market cap (USD) | | |
| Liquidity | Free float at 15% , relatively less liquid | Very liquid , lot of retail interest |
| Foreign shareholder | Singtel has been a committed foreign shareholder and intends to increase stake | No strategic foreign shareholder but combination of Mr Ambai'is stake creates strong alignment of majority and minority shareholders |
| Spectrum risk | Will impact additional subscriber growth | Spectrum a threat for GSM rollout but no impact for CDMA |
| Wireless business | GSM | Mix of CDMA and GSM |
| Market share | 22% | 20.3% |
| ARPU | Q3-06 ARPU higher by 30 % | ARPU lower primarily on account of free minutes |
| Strategy | GSM-based rural and market share focus | To migrate to GSM and increase market share |
| Coverage | Better on coverage, believes in a coverage-based market expansion | Recent focus on improving coverage linked to GSM expansion |
| Global business | Accounts for c20% of total revenues | Accounts for c40% of the total revenues |
| | RCOM -Sole owner of FLAG and FALCON | Participant in SMW4 and joint owner of i2i cable |
| | RCOM is also looking to unlock value by listing FLAG | |
| Broadband business | Larger than RCOM, follows a cherry-picking strategy | Very limited presence |
| IPTV/DTH | Both operators have plans to enter the IPTV and DTH services | |
| Tower business | Both companies looking to monetize assets, leasing revenues and implied asset revaluation | |
| Capex | Both private operators aggressive and willing to commit higher capex to gain market share | |
| Large focus | The present focus for both the operators seems to be market share | |

Source: HSBC

## Wireless strategy

Like Bharti, RCOM is an aggressive private operator with a national footprint. Bharti's wireless expansion has been a story of continuous capex commitment and a large focus on expansion. Despite the fact that both operators have a national foot print, Bharti has better coverage than RCOM. Bharti has been more focussed on a first-mover advantage and used it to consistently gain market share. Bharti's expansion in C circles is a good reflection of this strategy.

However, lately RCOM has announced the transition to GSM from CDMA; according to our view, this would put RCOM in the same bracket of a coverage-based expansion strategy.

The biggest risk for the wireless operators in India continues to be spectrum and Bharti and RCOM are not immune to this. However, given the fact that RCOM has CDMA operations at present which are understood to be a spectrally efficient technology, it is in a better place to hedge any spectrum associated risks in the short term. However as Bharti operates in a uniform GSM network in attractive spectrum bands it is well-positioned to receive additional spectrum allocations.

Admittedly, the release of additional spectrum for GSM is crucial for RCOM and a delay in release of spectrum would have a bearing on RCOM's GSM strategy. However, given the fact the release of spectrum is not directly in the hands of the regulator but the military, a delay in release may impact subscriber growth and hence spectrum continues to key risk for the Indian wireless operators.

### International expansion strategy

Both RCOM and Bharti have been looking to expand in other markets outside India. RCOM had tried for licenses in Saudi Arabia, Kenya and Egypt, and the latest on its radar is Qatar Telecom.

Similarly, Bharti has tried for licenses in Saudi Arabia, Bhutan and Sri Lanka. It recently obtained a license to become the fifth GSM-based operator in Sri Lanka.

We believe that opportunities in India are exciting and focussing on domestic operations would be beneficial for the company in the long term. The experience of other GEM wireless operators, such as Millicom International Cellular (MIC, NR) highlights the significant operational/regulatory partner challenges in markets like Africa and the Middle East.

We believe investors would be best served by Indian telcos focusing on India and are concerned that a revitalised international expansion strategy would be value-destructive for minority shareholders of both Bharti and RCOM.

## Diversification benefits

For RCOM, CDMA is a large slice of the pie and it now plans to move to a GSM-centric growth strategy. Given this, RCOM has a challenging job ahead, whereas Bharti with a clear GSM-based network strategy is relatively better placed. However, the diverse mix of RCOM's assets, primarily its global business, along with the wireless business, allows its overall business model a certain degree of flexibility.

In our view, the presence of a larger global business allows RCOM to have downside protection in the event of a slowdown on the wireless side.

Further, the fact that RCOM will have both CDMA and GSM based assets by FY10e, also allows it to pursue a segmental strategy. Moreover, the ownership of both CDMA and GSM equips RCOM to overcome any regulatory challenges as well. We think that RCOM may go

the China Unicom way and use its CDMA for post-paid 3G and GSM for prepaid 2G.

## Organic vs. inorganic

Bharti has followed an organic approach and pursued a network coverage-based market expansion. Bharti has not suggested any eagerness to acquire regional/pan-Indian operators in India and has preferred to build than buy.

On the other hand, RCOM submitted bids for Hutch-Essar and indicated that it believes in a mix of organic and inorganic growth. One of the key financial criteria that RCOM faces with a GSM build-out is build versus buy. Its lower bid for Hutch-Essar indicates that it is unlikely to buy assets at an exorbitant price. We have been of the view that RCOM's GSM transition strategy was the reason for its bidding of Hutch-Essar GSM-based assets, a strategy it may explore till it builds out its GSM network completely.

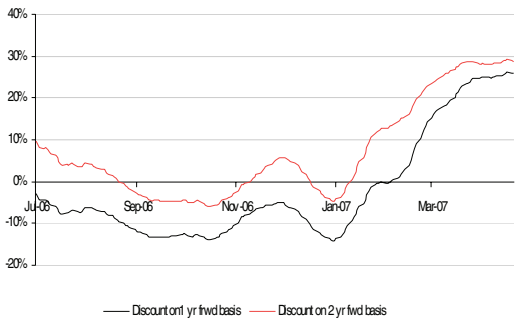
We believe that the fragmented nature of the Indian market allows RCOM to pursue such opportunities. Further, the fact these small regional players are also in the process of tapping the Indian financial market by going public makes the way better for RCOM as this entire process will help in the discovery of prices of these assets. Perhaps the companies also improve on disclosure when they tap financial markets, and it is an advantage for a potential buyer, who then gets a better view of the business.

In summary, we believe that Bharti is unlikely to acquire any domestic regional assets, whereas RCOM, with its GSM-centric focus, may look for such opportunities but is unlikely to pay a huge premium to buy any controlling stake.

### Relative valuations: Bharti vs. RCOM

Based on one-year forward and two-year forward consensus EPS estimates, we have computed PEs for both Bharti and RCOM. We then calculate the PE discount for RCOM relative to Bharti. As the chart suggests, RCOM trades at c26% discount to Bharti on one year forward PE and at c29% discount to Bharti on a two-year forward basis.

**RCOM vs. Bharti – PE discount analysis**




Source: HSBC estimates

On an YTD basis, Bharti's stock price has moved by 30% whereas RCOM's stock price moved by 1% while the Sensex moved up by 1%.

**RCOM discount**

| | 2008e PE | 2009e PE | 2008e EV/EBITDA | 2009e EV/ EBITDA |
|---|---|---|---|---|
| Basis CMP(Current Market Price) | -18% | -31% | 15% | 9% |
| Basis target price | -14% | -28% | -7% | -12% |

Source: HSCB estimates

## We prefer Bharti, but RCOM to benefit as well as market has a lot of untapped potential

The Indian wireless arena has been more a story of investment and expansion. Bharti notably has been the leader having pursued a capex and coverage-based market expansion strategy. RCOM has followed more of a yield-based strategy by milking the markets wherever it has been present. Further, it has leveraged on its CDMA spectral efficiency and has been able to lure subscribers by providing a lot of free minutes. However, with its GSM shift, RCOM is likely to follow suit; with its capex of USD2.5bn for FY08e suggesting that it will as well be pursuing an expansion based strategy in the next 12-18

months. The fact that the market is only c15% penetrated means there is still much opportunity left for other players as well.

We prefer Bharti over RCOM as it has continued with huge capex commitments and has been consistently beating market estimates on revenue growth and margin. Bharti's wireless business has also been showing a consistent increase in EBITDA margins and its economies of scale have been the primary reason for this margin expansion. Bharti has announced the adding of c30,000 incremental towers in this fiscal year, which indicates that it is continuing with its strategy; we are of the view that this is more a bringing forward of the overall planned capex . The appreciation in the rupee also supports our argument.

We believe that the Indian wireless story is far from over and given the current growth there is lot of untapped potential in the market. We believe players who invest at this stage of the market and are focussed on expansion will benefit. We believe that with only market only at c15% penetration there is enough opportunity for multiple players to benefit. We expect c215m mobile subscribers to be added by 2010 and estimate the mobile penetration to improve 32%.

Based on the capex numbers of RCOM for FY08e, we expect RCOM to improve its share of net additions. We expect RCOM market share to improve to 21.1% by 2009 from its current 20.3%. Progress on the release of GSM spectrum would be a further positive for the company. We expect RCOM will be able to improve its share of net additions going forward and that it will be a beneficiary of overall growth in the Indian wireless space.

**Overall market forecasts – India wireless**

| | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|
| Mobile penetration | 21.2% | 27.0% | 31.6% | 35.5% | 38.8% |
| Mobile subs("000) | 246 | 318 | 379 | 432 | 479 |
| Net adds("000) | 80 | 73 | 61 | 53 | 47 |

Source: HSBC estimates

## Capex plans Bharti and RCOM

Bharti has announced plans to add c30, 0000 towers in the next fiscal and announced capex of USD3.3-3.5bn for FY08e. Bharti plans to extend its population coverage to 70% from 59%by end of this fiscal year. On the other hand RCOM has announced capex of USD 2.5bn for this fiscal year. Notably the capex from RCOM is not inclusive of tower capex which will be part of the recently formed infrastructure company Reliance Communications Infrastructure limited (RCIL). We expect tower capex at USD1.3bn and that the total capex on the wireless side at USD3.8bn.

RCOM has suggested that it has got access to the 8,000 towers which are in rural areas and part of the Universal Service Obligation (USO) fund sponsored rural capex program. The RCOM has said that this will allow them to have access to c8000 towers for five years without incurring any payout on the rentals and on passive infra. However RCOM will have to build for electronics capex on these towers. We view this as a positive development for RCOM as it will allow having a viable business case in rural areas.

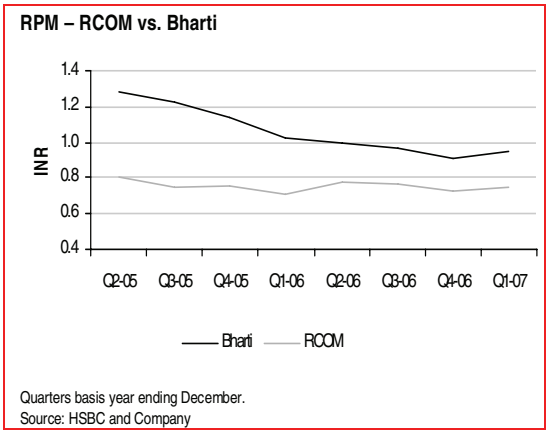
## Tower company strategy

RCOM plans to spin off the tower business in the next six months. The RCOM management has announced that it will look for options such as infusion of strategic partners, a potential listing, and infusion of PE funds or private placement in an attempt to unlock the value of the tower assets. RCOM management has indicated a time frame of six months in which it expects to unlock the value of the tower company.

Notably Bharti as well intends to unlock value of the tower business but has not been very clear on the likely routes which they would be looking at to explore in doing so. Further Bharti has also not provided for any time frame by which they plan to unlock the value of the tower business.

## Financial Analysis – RCOM vs Bharti

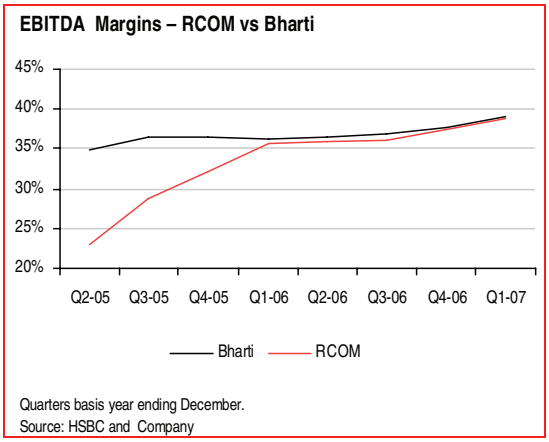
### Revenue per minute




Quarters basis year ending December.
Source: HSBC and Company

Our analysis of revenue per minute (RPM) of Bharti and RCOM indicates that on an absolute basis Bharti enjoys a higher RPM. However the trend of RPM has been more stable with RCOM compared to Bharti. While for Bharti the ARPUs have been declining the MOU's have been increasing and leading to lower RPM for RCOM. However for RCOM the ARPU and MOU's have not behaved consistently and the fact that RCOM has been cutting down on the free minutes has allowed RCOM to maintain its RPM despite the decline in ARPU.

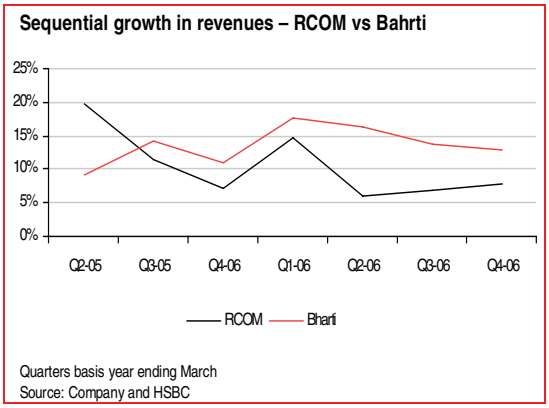
### Wireless EBITDA margins




Quarters basis year ending December.
Source: HSBC and Company

The improvement on the wireless EBITDA margins for Bharti has been more consistent and gradual compared to RCOM. However now there is a margin gap of thirty basis points between the wireless EBITDA margins of both the wireless operators.

### QoQ revenue growth




Quarters basis year ending March
Source: Company and HSBC

Bharti has been consistently out performing on this performance indicator. Bharti has posted higher revenue growth on a sequential basis than RCOM. Notably RCOM, on account of its CDMA network strategy, suffers from relatively lower ARPU.

# CDMA present, GSM future

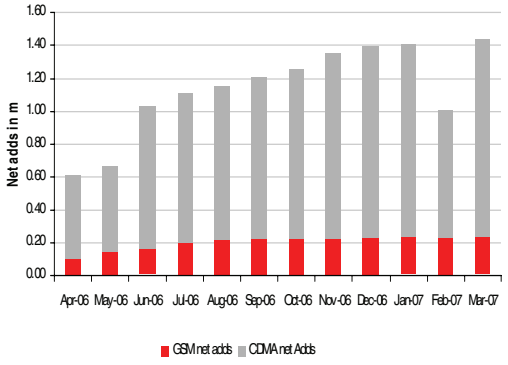
- 88% of RCOM's subscribers are CDMA, but it plans to move to GSM
- Low ARPU, lower realised rates and higher handset prices are discouraging for the CDMA business
- Moving to GSM to allow RCOM to improve market share and ARPU and introduction of MNP could benefit RCOM's GSM transition

## CDMA – a large slice of the pie

Reliance Communication (RCOM) enjoys an overall market share of c20.3% and has presence in 22 circles. It runs a dual network with CDMA subscribers amounting to c88% of the total base, and GSM the rest 12%, clearly suggesting that CDMA subscribers constitute a significant part of the overall base. The next other major player in the CDMA segment is Tata, with an overall market share of c10%. However, India is a GSM-centric market, with GSM subscribers accounting for 77% of the total mobile market.

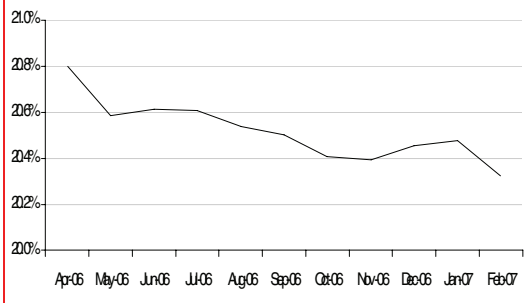
RCOM runs GSM network in eight circles, of which six fall in the C circle category. The company runs both CDMA and GSM operations in these circles. Given that the Indian market is largely GSM centric, RCOM plans to replicate a dual network approach in all the other circles. It has applied for licenses in 21 circles and awaits release of relevant spectrum before it can launch GSM-based services in these circles.

**RCOM – CDMA and GSM net additions**




Source: AUSPI, COAI and HSBC

**RCOM – cumulative market share**




Source: AUSPI, COA I and HSBC

# Challenges with CDMA

**Low-end low yield**

The major concern for RCOM, with its CDMA operations, is low ARPU. Its current ARPU is c23% lower than Bharti's and c20% lower than Hutch-Essar's. However, in a recent clean-up, RCOM has suspended services to c5.5m subscribers, which, as per the company, which has lead to improvement in ARPU on a q-o-q basis by 15%. We believe that a large number of the suspended subscribers are likely to be from the fixed wireless subscriber category, which, since April 2007, have been categorised as wireless subscribers. By our estimates, fixed wireless subscribers accounted for low ARPU and their inclusion had distorted the overall ARPU for the wireless subscribers of the company.

The TRAI Performance Indicator report for July-September 2006 reflects the disparity between CDMA and GSM ARPUs and highlights the ARPU concern associated with CDMA. Compared to the monthly blended ARPU of INR337 per month recorded by GSM operators, CDMA blended ARPU during the same period was INR215, c36% lower than GSM ARPU.

Further, the TRAI data also highlights the huge difference between post-paid and the prepaid ARPU in the CDMA category. Post-paid ARPU is c3.21 times that of prepaid ARPU. For GSM, the ratio stands at 2.3 times, c27% lower than CDMA. The ratio has deteriorated for CDMA operators on a quarterly basis, as it has moved up from 2.91 times in the quarter ended June 2006 by 10% on a sequential basis.

The low CDMA ARPU also imply lower revenue per minute (RPM), compared to GSM. While RPM for GSM was INR0.79 for the quarter ended September 2006, that for CDMA was INR0.52. This reflects that CDMA RPM is at c34% discount to GSM RPM.

## Why is CDMA ARPU lower?

We believe the primary reasons for CDMA ARPU being lower are:

1 CDMA operators provide lot of free minutes to subscribers in an attempt to bridge the gap between CDMA and GSM handsets

2 ARPUs are understated as free minutes don't fetch anything. We believe the free minutes are more of the nature of subscriber acquisition costs; to arrive at the true ARPU the impact of free minutes should be added back to the ARPU. RCOM does not provide for any financial impact of free minutes and treats them as an opportunity cost.

**CDMA handsets**

Another operating constraint that CDMA operators in GSM-centric markets face is the competitive disadvantage on handset procurement distribution strategy. CDMA handsets are more expensive than GSM, primarily due to the licensing fee that Qualcomm (QCOM, NR) charges operators/handsets manufacturers. Further, the absence of a second-hand market for CDMA handsets also hurts CDMA operators. In India, GSM operators play a minimal role in the procurement/distribution of GSM handsets and enjoy a very low subscriber acquisition cost (SAC). In contrast, RCOM purchases CDMA handsets and indirectly subsidises the CDMA/GSM handset price differential via incentives to dealers.

RCOM suggests that it provides a handset subsidy in the range of USD8-10 in an attempt to bridge the pricing disparities. The aforesaid subsidy is being distributed as a mix of both cash subsidy on handsets and free minutes/promotional talk-time. The company does not account for any financial adjustment for the free minutes it offers, as it is more an opportunity cost than financial cost.

## RCOM and Qualcomm

One key aspect of the RCOM network migration strategy is the relationship with Qualcomm. Over the past few years, GSM has emerged as the primary access technology for GEM wireless. GSM provides much higher handset volumes and the GSM SIM card capability allows operators to un-bundle the handset and the service. The GSM Association has pushed the development of low-cost GSM handsets engineered for GEM markets. This combination of factors has driven down low-end, ex-factory GSM handset prices into the USD25-30 range versus USD35-45 for a comparable CDMA handset. In the India, there is a large and vibrant market for used-refurbished handsets. These recycled handsets are available for USD10-20 dollars and there is no comparable market for CDMA.

QCOM holds most of the patents on CDMA, serves as an aggressive global advocate for the technology, and plays an influential role in US trade policy. RCOM launched a CDMA network in 2004, due in part to political support for QCOM in India from the US government. QCOM's principal revenue stream is royalty payments for use of the CDMA technology based on fee per handset. This fee is negotiated on an operator-by-operator basis and we believe the average royalty fee for GEM's is in the USD3-6 range. The combination of lower production volumes, a greater emphasis on high-end, data-centric handsets and the CDMA royalty fee led to a 20%-30% cost differential between CDMA and GSM handsets. RCOM is one of the most efficient CDMA operators in the world and has pushed CDMA handset vendors to drive down the price differential.

The central issue in the dispute between RCOM and QCOM is the willingness/ability of QCOM to cut CDMA royalty payments to help close the price gap with low-end GSM phones. RCOM notes that a USD6 cost differential between CDMA and GSM is significant, given the combination of low disposable incomes and low revenue per minute in India. QCOM counters that royalty payments are already low and that they don't want to create a global precedent for lower fees. We believe the potential resolution of the RCOM-QCOM licensing dispute would not provide a viable alternative to the construction of a GSM network because a cut in QCOM CDMA license payments cannot close the price-functionality gap with GSM.

## Advantage CDMA

### Spectral efficiency

Most CDMA operators argue that CDMA benefits from greater spectral efficiency, lower maintenance costs and cheaper upgrade paths. In the past, RCOM had cited the use of CDMA as an advantage, given the severe spectrum constraints for GSM operators in the Indian metro markets.

The fact that RCOM supports its c30m subscriber base with 12,000 towers, compared to Bharti,

**ARPU comparison – GSM vs. CDMA ( Figures in INR)**

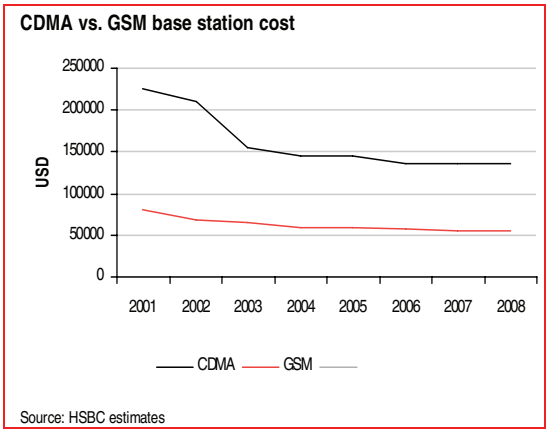
| ARPU (INR per month during the quarter) | Post-paid | | | Prepaid | | | Blended ARPU | | |
|---|---|---|---|---|---|---|---|---|---|
| Circle | GSM | CDMA | CDMA discount to GSM (%) | GSM | CDMA | CDMA discount to GSM (%) | GSM | CDMA | CDMA discount to GSM (%) |
| Circle A | 646 | 516 | -20 | 261 | 153 | -41 | 322 | 200 | -38 |
| Circle B | 537 | 475 | -12 | 281 | 169 | -40 | 313 | 198 | -37 |
| Circle C | 538 | 609 | 13 | 305 | 179 | -41 | 342 | 200 | -42 |
| Metro | 758 | 616 | -19 | 284 | 189 | -33 | 400 | 261 | -35 |
| All India | 643 | 543 | -16 | 277 | 169 | -39 | 337 | 215 | -36 |

Source: TRAI Performance Indicator report July-September 2006

which has deployed c39,000 towers– three times that of RCOM. The difference explains to a certain extent the spectral efficiency of the CDMA network.

The maintenance cost challenge for CDMA versus GSM is a bit more difficult, given that almost all the wireless infrastructure in India is new and has been deployed via turn-key vendor contracts. The cheaper upgrade path is not a major issue in India today, given the emphasis on deploying cheap voice capacity for basic services, rather then advanced wireless broadband.

### Spectral efficiency comes at a cost




As per our analysis, the cost of setting up a CDMA base station is c50% higher than that required for GSM. The major difference in capex stems from electronic components, which are expensive for a CDMA network. The cost of setting up a tower is the same for both CDMA and GSM networks.

A CDMA base station with c3-4 carriers in a high density area costs cUSD150, 000-180,000, whereas a GSM base station costs cUSD100, 000-120,000. However, the fact that CDMA is spectrally c3-4 times effective than a GSM network justifies the higher cost of electronic components. The cost of setting up a CDMA base station in a low density area (cUSD120,000) is c10-15% higher than that of a GSM base station.

### Lower churn

CDMA operators face lower churn than GSM operators. RCOM's churn is c5% per quarter compared to other GSM operators who suffer from churn in the range of5% -6.5%. We believe lower churn leads to lower spend on subscriber acquisition costs. Hence, the lower churn provides support to the higher SAC faced by CDMA operators to subsidize handsets.

# Why GSM?

### Eyeing early adopters

The fact that the Indian market is predominantly GSM-oriented explains only one of the few rationales behind RCOM's move to GSM services on a pan-India basis. The company has been a late entrant in the Indian wireless arena and as such has lost out on the early adopters. We believe that a large part of the high ARPU base sits with other GSM majors, as they had entered the mobile services market much earlier and were able to grab early adopters. CDMA handsets act as a deterrent to RCOM's ability to churn high ARPU customers from competition. GSM gives subscribers the option to choose among seven service providers, whereas the option is limited to two for subscribers of CDMA-based services.

### Handset hassle

Subscribers' stickiness to a handset describes their willingness to change handsets, rendering the old handset redundant. We believe this is one of the reasons why RCOM has not been able to churn high ARPU customers from competition. Hence, the ability to churn high ARPU customers from the competition provides an opportunity for the company to improve its ARPU.

### Yield game

RCOM's presently low ARPU also highlights that its present subscriber mix does not provide a robust business case for high-end services. The Indian regulatory authority, TRAI, has already submitted the guidelines for 3G services; if the spectrum is vacated by the Indian military, India might move to 3G services in the next 12 months. In such a scenario, it makes sense for the service providers to change their subscriber mix in favour of high ARPU customers to ensure reasonable returns on investments in new technology.

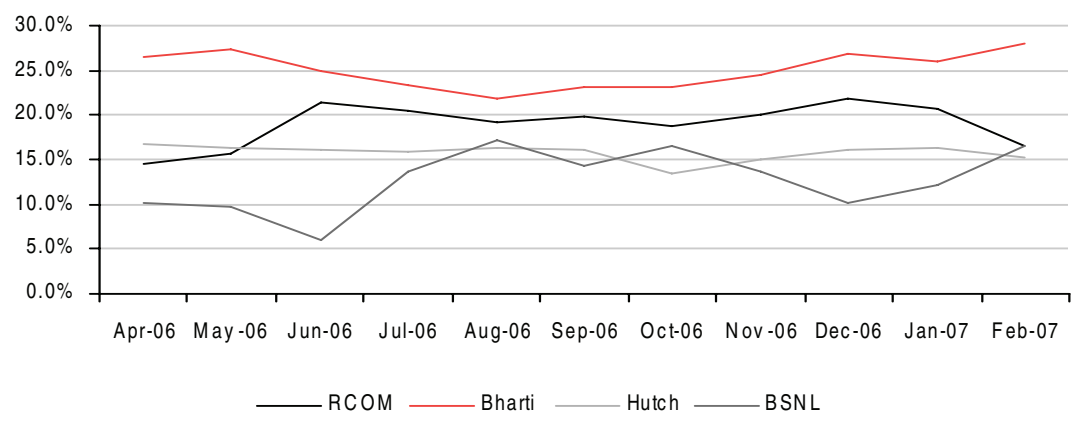
To conclude, the GSM network provides RCOM an opportunity to earn incremental ARPU, gain market share and align its subscriber mix in favour of new investments.

### Scale advantage

The cost of setting up a network is the lowest in India, which is reflected by operators' low capex per subscriber. We believe that RCOM's move towards GSM will allow GSM vendors much larger scale for GSM equipment and handsets, and eventually lead to lower prices of both network equipment and handsets.

We believe that RCOM will have to incur one-time initial capex to launch GSM services, followed by maintenance-based capex, which will

**Share of net additions – Bharti marching ahead, RCOM maintains second position**




Source: COAI, AUSPI and HSBC

be largely driven by subscribers' usage behaviour.

We believe that on a comparative basis, RCOM's maintenance capex will be lower with its transition to GSM than if it continues with its CDMA approach. Admittedly, the benefits of more scale for GSM equipment and handsets will not only benefit RCOM, but also have a positive bearing on other GSM players.

## Mobile Number Portability (MNP) is key

The introduction of MNP is a pre-requisite if RCOM hopes to churn away high-ARPU, post-paid customers from Bharti and Hutch-Essar. In a GSM environment, an MNP customer can switch operators without changing their handset or SIM card allowing customers to keep their numbers and seamlessly transition their customer data. The global experience is that MNP is most valuable to early adopters, who view their cell phone numbers as a key part of their professional and social identity. These early adopters tend to be less price sensitive and are unlikely to give up their cell phone numbers for a 10-20% cut in prices.

The Indian government's view on MNP is unclear. Most regulators have introduced MNP as a way to increase competition, expand customer choices, level competitive playing fields, or encourage operators to improve network quality. India is a low-penetration, high churn, pre-paid focused market with a fairly level playing field and the lowest revenue per minute (RPM) in the world. The network quality argument would apply in India, where congestion and blocking rates are high. However, the Indian government is a significant indirect contributor to the network quality problem, given the intense spectrum constraints in metro markets.

We assume MNP is introduced in 2008 and that RCOM will be successful in churning high-value, data-centric post-paid customers onto their metro CDMA network. As our base case assumes GSM operations by 2010e, it would not be impacted by a delay in introduction of MNP. Last summer, the TRAI indicated an interim plan to introduce MNP, however, several of the big operators argued against rapid implementation of MNP, highlighting the technical-logistical challenges of implementation and relatively high levels of customer satisfaction with existing wireless services. The global experience with MNP in GEM markets is that there is a significant 9-12 month transition period, where regulators and operators agree on an implementation schedule. MNP increases churn and RCOM can expect to lose some of their high-value customers to more mature GSM operators like Bharti and Hutch-Essar. The rapid introduction of MNP represents a significant milestone for the Indian wireless sector and a clear indication of the Indian government's willingness to help RCOM make the jump to GSM.

**Rate per outgoing minute – GSM vs. CDMA ( Figures in INR )**

| Average rate per outgoing minute | Post-paid | | | Prepaid | | | Blended ARPU | | |
|---|---|---|---|---|---|---|---|---|---|
| Circle | GSM | CDMA | CDMA discount to GSM (%) | GSM | CDMA | CDMA discount to GSM (%) | GSM | CDMA | CDMA discount to GSM (%) |
| Circle A | 1.11 | 1.01 | -9 | 1.54 | 0.94 | -39 | 1.37 | 0.96 | -30 |
| Circle B | 1.15 | 1.01 | -12 | 1.48 | 0.95 | -36 | 1.4 | 0.96 | -31 |
| Circle C | 1.59 | 1.08 | -32 | 1.63 | 0.91 | -44 | 1.62 | 0.93 | -43 |
| Metro | 1.36 | 1.33 | -2 | 1.84 | 1.33 | -28 | 1.59 | 1.33 | -16 |
| All India | 1.23 | 1.12 | -9 | 1.57 | 1.02 | -35 | 1.45 | 1.05 | -28 |

Source: TRAI Performance Indicator report July-September 2006

## CDMA to GSM – that's the way

RCOM's potential shift from a CDMA-centric to GSM-centric strategy highlights a much broader global debate over the direction of wireless technology. CDMA operators in Australia, Korea and Brazil have begun deploying parallel GSM networks. In Australia, 3G operator Hutchison switched off its 2G CDMA network to migrate its customers to its 3G WCDMA network. Vivo, the largest operator in Brazil and the country's only CDMA operator, moved to GSM to more effectively compete with low-cost GSM competitor promotions.

The number of GSM customers in the Caribbean and Latin America (CALA) region climbed to more than 200m in 4Q06, registering an annual growth rate of 61.6% for the full year. This is more than double the region's overall 27.7% annual increase in customer numbers. In 4Q06 alone, 22.39m new GSM customers were added, almost matching the record of 22.42m in 4Q05.

Brazilian CDMA numbers fell for the second month in February 2007 primarily, in our view, because of the launch of Vivo's GSM network. In Venezuela the last of the group of businesses acquired by Telefonica from BellSouth has gone GSM, launching in the last week of January.

This is similar to China Unicom, where the GSM business has been gaining ground in the last six quarters.

HSBC

# Wireless business case

- We like RCOM's shift towards a GSM-centric growth strategy, but believe the market may be underestimating the cost and complexity based on limited guidance from management
- Shift to GSM-centric network is our base case; we expect RCOM to shift to a China Unicom-style dual network strategy of using CDMA postpaid-3G and GSM for prepaid 2G
- Our base case assumes 2G CDMA till 2010, after which we build for a 2G GSM shift

## GSM opportunity

We believe RCOM's decision to migrate to GSM appears to be a strategic one – should RCOM decide to stay with CDMA only, it is likely to have limited market share expansion. However, if it invests in GSM, it could regain competitiveness in the higher ARPU segment, as the GSM network offers opportunity to churn high ARPU customers from competition. Further, given that India is largely a GSM-centric market and GSM equipment prices have been declining at a fast pace, we believe the return on new investments could be satisfactory for RCOM in the long term.

However, as the GSM and CDMA business will coexist till RCOM moves to a single network strategy, we expect to see some obvious inefficiencies of running two simultaneous technologies at least for a few years, which is likely to result in margin pressure.

Therefore, we believe that by not moving to GSM, RCOM might struggle to maintain its market share and suffer from low ARPU. Hence, in our view the GSM-centric Indian wireless market leaves RCOM with almost no choice but to move to the GSM platform.

### Dual network strategy

**GSM overlay would mean dual networks**

RCOM would run a nation-wide dual network once it starts its GSM operations. Admittedly, it runs dual network at present in eight circles, which is more regional in nature. We assume RCOM will keep high-value, post-paid, data-centric users on the CDMA network. We believe RCOM will shift towards a China Unicom-style dual-network strategy of using CDMA for post-paid 3G and GSM for pre-paid 2G.

This is in line with our investment argument for China Unicom (CU), where we are positive about the company running dual networks. However, the regulatory framework and the TD-CDMA factors are two typical Chinese market factors that favour our argument for CU benefiting from its dual network.

### RCOM to benefit the CU way

CU, the second largest mobile player in China, runs a similar dual network-based approach. In the past, CU had been strategically disadvantage, by virtue of having to run dual networks, a badly positioned CDMA business and stiff competition, from the market leader China Mobile. However, the last six quarters reflect pick-up in the GSM business, and the 3G scenario is proving to be a boon in disguise for the CDMA business. We believe that the EVDO upgrade provides the CDMA business a quick and cheap path to migrate to 3G services and puts CU in better position, compared to the market leader China Mobile, which might have to bear the burden of Chinese home-grown technology TDS-CDMA.

During the last few quarters, CU's GSM business has been gaining ground and management has also been increasing capex in favour of the GSM business.

China's market is different as 3G has been associated with the Chinese home-grown technology TD-SCDMA, which is unlikely to occur in India. The entire push of TD-SCDMA suggests an uncertain scenario for China Mobile, whereas the availability of CDMA network for CU becomes a blessing in disguise, as it offers the company a cheap path to upgrade to 3G.

## Why and why not for the CU way

### Strategic reasons for the CU way

In our view, the TRAI recommendation for 3G is to some extent favourable for CDMA operators compared to GSM operators. At first the number of operators bidding for the 2.1GHz spectrum band will be higher suggesting that GSM-based operators buyers willing to buy 3G may have to shell out a higher premium to the reserve price suggested by TRAI. On the other hand, RCOM, for CDMA-based 3G upgrade, will have to compete only with TATA for procurement of 3G spectrum. Moreover, this scenario only steps in when both of them bid for the 450 MHz or 800 MHz band, suggesting that they have an option to avoid this by bidding for different bands.

Further, the TRAI recommendations allow CDMA operators more options than GSM operators. CDMA operators will have an option to choose spectrum in the 450 MHz band /800 MHz band /900 MHz band. Further the CDMA operators would have also the flexibility to bid for 2.1GHz band as well. Moreover, the recommendations also don't state any rollout obligations for operators procuring 3G spectrum in the 800MHz band. We believe such a policy allows CDMA operators to provide a selective 3G-based service in select markets.

In addition, the pricing recommendation suggests that CDMA operators getting spectrum in the 800 MHz should be charged the second highest winning bid in the 2.1GHz band. For spectrum in the 450MHz, the TRAI has recommended half the reserve price of the 2.1 GHz band.

Another factor is the lower cost upgrade to 3G by CDMA operators compared to GSM operators. The primary reason being that CDMA-based 3G upgrade is more of a software upgrade and hence provides CDMA operators with a viable 3G business case.

To sum up, we believe the 3G recommendations in the current format offer options and lower payout for CDMA operators to acquire 3G spectrum. We also argue that this approach allows RCOM to pursue a segmented approach. Furthermore, the fact this network will be relatively free on account of less subscribers, it would be suitably placed to meet the demand of high usage subscribers.

### Risks and limitations for the CU way

The potential limitations and risk of a dual network strategy are as follows

- The post-paid subscribers would be looking for international roaming services which could be best served by a GSM network than CDMA network.
- The post-paid CDMA subscribers may also require dual mode handsets which have capabilities to be used for both GSM and CDMA.
- CDMA electronics capex is higher than GSM and this is likely to pose additional burden for RCOM. However, we believe as these subscribers will have a higher usage and higher ARPUs, the electronics capex is unlikely to be a constraint. We believe investors must be looking at capex per minute and not capex per sub.

## Why GSM for a prepaid 2G?

**Telcos – Factories generating minutes**

A telco can be simply viewed as a factory producing and selling minutes and measuring this yield as RPM. Like other factories, it has operating expenses that are fixed, semi-variable and variable. It also requires capacity expansion if the demand for minutes exceeds the production capacity (in telcos' case, it is network coverage). The factory's value can be raised if it is operated at 100% utilisation to allocate fixed and semi-variable cost to a large set of users.

The incremental subscribers in the Indian wireless space will accrue from rural and semi-urban areas. In our view, these subscribers have marginal usage. Hence, the lower cost of GSM electronic capex ideally places it for larger use as a 2G network. The lifetime prepaid plans are the best examples of this as they allow subscribers to increase market share rapidly.

## The GSM-CDMA shift

**GSM capex estimates**

In our view, RCOM's total capex will increase substantially in the first two years, once GSM spectrum is available. We expect CDMA capex to decline once GSM capex takes priority. Perhaps it can also be viewed that a part of the capex will be in substitution of CDMA.

RCOM has c12, 000 towers, which is one-third of the towers owned by Bharti. Hence, a plain computation would suggest that it would have to put an incremental 20,000 towers to match Bharti's coverage, assuming that all CDMA towers have provisions to be used for CDMA. Bharti recently announced at its Q4 analysts' meeting that it was putting up an additional 30,000 towers this year, taking the total to c70, 000. Notably we are not factoring any of the tower capex in books of RCOM as we expect this to be borne by the separately formed tower company.

We believe that before making such computations, we must factor in the following considerations:

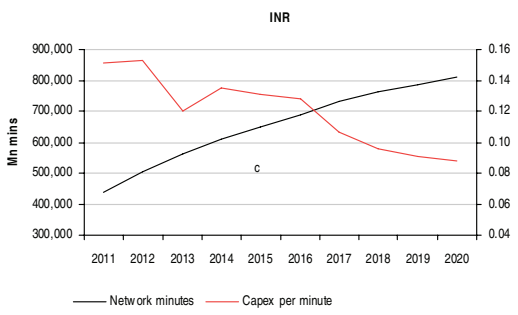
- RCOM will be provided spectrum most likely in the 1,800MHz band, suggesting that the number of towers required to match Bharti's coverage would be high. Bharti operates in the 900MHz band in most circles. The higher the spectrum, the more the number of towers required by the operators.
- RCOM will benefit to a considerable extent from infrastructure sharing. We are of the view that this will allow not only capex savings but also enable RCOM to expand rapidly. Moreover, infrastructure sharing also reduces opex on the network side for the operators and boosts margins.
- RCOM's GSM transition would also benefit from falling GSM equipment prices. Further,

we believe that vendors may offer a higher price discount to RCOM in an attempt to secure a new contract and build long-term relationships.

- We are factoring that all the CDMA towers will be re-farmed for the purpose of GSM and the robust backhaul for CDMA will be aligned for the GSM network and lead to savings on the capex side.

As per our estimates, the incremental number of towers required for GSM operations would be c0.12m towers by 2015. We expect that c23% of the incremental towers required for GSM operations will be available from infrastructure sharing agreements that RCOM has entered into with other GSM operators. On an overall basis, c30% of towers would be shared by RCOM.

**GSM minutes and electronics capex per minute**




Source: HSBC estimates

## The GSM transition key assumptions

We have built a gradual transition towards a GSM-centric network strategy and the evolution of CDMA in a niche, urban 3G platform into our base case forecasts. RCOM provides limited guidance on their network migration strategy, so we have made a series of assumptions on cost, timing, and market segmentation. We assume that RCOM will receive GSM spectrum in the 1800 MHz band, roll-out a nationwide network in 2010, channel all new subs into GSM, and gradually migrate existing CDMA subs over as they replace handsets.

Our key assumptions are

- RCOM is awarded GSM spectrum by late 2009 or early 2010 and rolls out its GSM based services by end-2010.
- We have built for handset subsidy for c33% of CDMA subscribers who are migrated to the GSM network. We expect that for the residual subscribers, the handset replacement cycle will be the catalyst and will require no subsidies on the handset.
- We have assumed cINR2, 500 (cUSD52) as the average cost of handsets which will be subsidized.
- We assume that post 2011 all the incremental 2G net additions are on the GSM network and additions on the CDMA are stopped.
- Our business case for GSM assumes a higher longer-term market share for RCOM, expecting it to be benefited by its foray into the GSM segment. Our long-term market share assumption for RCOM's GSM is c24.6% by 2015e.
- As per our estimates, moving to GSM will provide an opportunity for RCOM to do away with the concept of free minutes to large extent. We expect incremental GSM subscribers to yield c20% higher ARPUs than that from CDMA. Further, on account of the reduction of free minutes, we expect improvement in ARPU from CDMA subscribers by c10%
- Our capex estimate for 2011 is USD1.5bn assuming capex per sub of cUSD22. Notably this is only the electronics capex as the tower company will bear the tower capex.

- We are factoring an average additional impact of c3% from 2010 to 2014 for running of dual networks
- We have built for additional marketing expenses for positioning GSM services, the growth of which averages 15% for the first three years. We have computed these on the incremental GSM margins only. This will be incremental in nature, over and above the CDMA marketing expenses.
- We expect the conversion of all prepaid CDMA subscribers to the GSM network to occur by 2014e.
- Our long-term margin assumption for GSM operations is 42%, comparable to our long-term assumption for Bharti.

**Subsidy to disappear…margins to improve**

CDMA handsets are priced higher than GSM ones primarily because of the scale advantage enjoyed by GSM vendors. Further, the non-existence of a second-hand market for CDMA handsets makes them relatively expensive. To bridge the price gap between the GSM and CDMA handsets, RCOM and other CDMA operators in India lure subscribers either by direct handset subsides or by bundled free minutes plans. However, post the migration of all CDMA subscribers to the GSM network, RCOM will do away with handset subsidies, thereby allowing improvement in margin in the long term.

## CDMA business case, 2008 to 2010

**Net additions and market share**

With c73% of GSM subscribers and c75% of the total net additions being accounted by the GSM operators highlights that the Indian wireless market is GSM-centric.

The last 12-month data on share of net additions suggests that there is a 600pp gap between Bharti and RCOM's share of net additions. Bharti accounts for 26-28% of net additions, while RCOM manages c20-21%. With incremental growth likely to come from suburban areas, CDMA operators will face the choice of growth versus profitability.

Recent moves from the RCOM suggest that it has been working on bringing down free airtime on different subscriber plans. Also, with the introduction of Classic handsets, the company has been able to lower the subsidy. Further, the recent move of suspending c5.5m subscribers indicates that management is looking towards growth but not at the cost of margins.

**Competition crops up**

In a recent development, BSNL's legal tussle with Motorola is coming to end, with Motorola deciding to withdraw from the case. Private operators have been gaining at the expense of BSNL as it suffered on account of its capacity problems. The scenario becomes more significant given the fact that BSNL is better placed in rural and semi urban areas. Also, other regional operators like Aircel Maxis have recently announced their USD3bn capex plan for the next five years. However, we believe it will still be some time before one can expect major competition from the incumbent and the regional players. We don't see any major threat to RCOM from the small regional players in the next 12-18 months.

RCOM has not focussed on expansion in the recent past, but maintains its second position in share of net additions. Given its huge capex commitments this year, we believe RCOM will be able to achieve a higher market share, and hence build for an estimated c21.2% market share by 2010e.

In our view, the higher capex for CDMA helps RCOM, as a large part of the capex, especially

investments in towers and backhaul, will be reusable for GSM business.

**Revenue and EBITDA margins**

We expect the mobile revenues to grow at annual rate of c49% in FY08e and c42% in FY09e, on the basis of robust subscriber growth and marginal decline in ARPU. On the margin side, we expect wireless EBITDA margins to be stable at c38.2% in 2008e.and expect them to improve to c39% by 2010e. Given the suspension of c5.5m subscribers, we expect ARPU to remain at around the INR350 levels in 2008. However, with incremental subscribers to come from suburban and rural areas, we expect ARPU to decline in the future.

To adjust for the impact of suspended subscribers we have modelled basis the revenue generating users. The suspended customers don't form a part of our universe for the purpose of ARPU. Our revenue calculations exclude any revenues from the suspended customers.

## Telcos – factories generating minutes

At present, RCOM provides cUSD5 free talk time on an average per tariff plan. However, this is not accounted for in any manner by RCOM as it is viewed as an opportunity cost. The net RPM indicator, however, captures this as it is computed using the overall minutes generated.

The price difference of CDMA and GSM handsets is the primary reason for RCOM offering such freebies to subscribers. We do not expect these to be taken away by RCOM, and in our view, it is likely to keep the RPM under pressure in the medium term.

A telco can be simply viewed as a factory producing and selling minutes and measuring this yield as RPM. Like other factories, it has operating expenses that are fixed, semi-variable and variable. It also requires capacity expansion if the demand for minutes exceeds the production capacity (in telcos' case, it is network coverage). The factory's value can be raised if it is operated at 100% utilisation to allocate fixed and semi-variable cost to a large set of users.

Given the spectral efficiency of CDMA networks, RCOM is positioned to provide free minutes to subscribers and can reasonably do so till it utilises 100% capacity of its network.

# Capex estimates

**Active infra sharing and impact**

In a recent development, TRAI has recommended to the department of telecommunications (DoT) for *suo motu* active infrastructure sharing and backhaul. As per TRAI estimates, India would require c0.3m towers by 2010e, against the current 0.1m towers. On this basis, TRAI has reiterated the urgency of passive infrastructure sharing. Further, it has also asked for modification of conditions of license to allow active infrastructure sharing limited to antenna, feeder, cable, Node B, radio access network and transmission systems. Another important recommendation has been for sharing of backhaul to allow service providers to share backhaul from base trans-receiver station to base station controller (BSC). In our view, backhaul sharing will definitely result in capex savings; also sharing of maintenance capex would allow them to save on opex as well.

Now service operators are eying rural space, where traffic is low and setting of independent backhaul infrastructure by the operators might not find a viable business case. Hence, sharing of the backhaul will be positive for such expansion.

To a large extent, RCOM uses Optical Fibre Cable (OFC) medium for the backhaul infrastructure, and the management has suggested that its OFC medium can be shared by multiple operators. On the other hand, other GSM operators rely on a mix of microwave and OFC

| RCOM wireless business case – CDMA | | | | |
|---|---|---|---|---|
| **Figs in INR m** | **2007e** | **2008e** | **2009e** | **2010e** |
| Market mobile subs ( in "000) | 165,928 | 245,604 | 318,112 | 378,635 |
| Penetration ( %) | 14.5% | 21.2% | 27.0% | 31.6% |
| RCOM subs ( in 000) | 34,015 | 51,231 | 67,240 | 80,331 |
| RCOM market share (%) | 20.5% | 20.9% | 21.1% | 21.2% |
| ARPU ( INR m ) | 354 | 351 | 339 | 338 |
| MOU | 488 | 469 | 457 | 450 |
| Wireless revenue | 107,276 | 159,829 | 227,211 | 288,164 |
| EBITDA | 39,844 | 60,979 | 87,527 | 111,859 |
| EBITDA Margins | 37.1% | 38.2% | 38.5% | 38.8% |
| Capex | 45,469 | 76,562 | 86,887 | 82,792 |
| FCF | -9,065 | -20,567 | -8,145 | 17,615 |

Source: HSBC estimates

medium for backhaul connectivity. Hence, RCOM could benefit given the capability of its backhaul to accommodate a larger number of players if DoT allows active infrastructure sharing.

### Estimates and forecasts

RCOM's management had provided capex guidance of USD2.5bn for FY2008e and plans to increase tower infrastructure by 20,000 towers. The management doesn't provide any break down of capex. However RCOM management has suggested that it plans to put c20, 000 towers by this fiscal year and the tower capex will form a part of the separately formed tower company. However the residual electronics capex forms a part of the CDAM wireless capex.

We believe that of the total capex of USD2.5bn c72% of the capex constitutes the wireless capex and rest capex is for the remaining tower businesses. We believe that the wireless business will be bearing the electronics capex and the capex for the purpose of the backhaul.

Our FY08e capex to sales ratio is estimated at c48%, and we expect this to stabilise at c30% by 2010e.

As we had mentioned earlier, CDMA capex for electronics component is higher, compared to that for GSM, and this suggests that the present CDMA capex might hurt RCOM. However, RCOM is most likely progressing with a single carrier (meaning that it is likely to spend the minimum electronic capex) as lower spending on electronic capex will be compensated by the higher number of towers deployed.

# Global and enterprise business

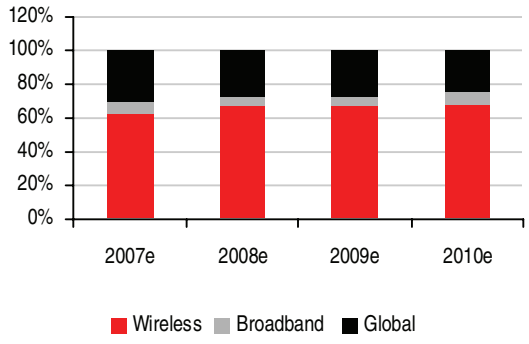
- RCOM plans to list Flag Telecom with in next 6 months and unlock value
- Flag is targeting untapped markets; Falcon presence allows it to leverage on Asia
- RCOM's global business accounts for c30% of revenue and c22% of EBITDA and its presence provides with a good business portfolio

## Large global business

RCOM has a robust global data business, which is bigger than Bharti's. Its global business accounts for c30% of gross revenue (overall revenue before inter-segment eliminations) and c22% of overall EBITDA. Further, the enterprise business that RCOM categorises as broadband business also uses the capacities of Flag, which serves as the backbone for all voice and data outside of India. The combination of enterprise and global business contributes directly and indirectly to 38% of revenues and c32% of EBITDA.

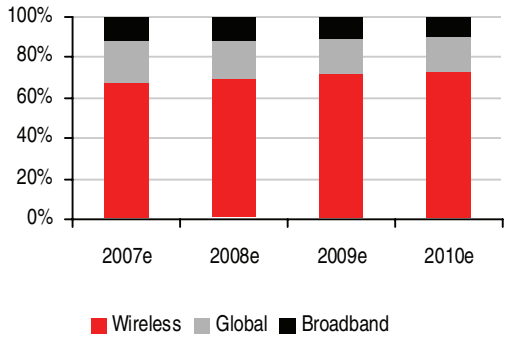
The combination of Flag Telecom and Falcon cable provides RCOM with a presence in 28 countries and 65 international points of presence (PoP). The company is also extending the construction of Falcon cable system, which directly connects 12 countries in the Middle East, East Africa and the Mediterranean, to the rest of

**RCOM – segment wise revenue break up**




Source: Revenue considered for the purpose is gross revenue
Source: HSBC estimates

**Bharti – segment wise revenue break up**




Source: Revenue considered for the purpose is gross revenue
Source: HSBC estimates

the world through the Flag global network.

Earlier, RCOM had invested USD400m to build the Flag sub-sea cable system. Based on our discussions with management, there are indications of healthy presales of Falcon to carriers in the Middle East. RCOM acquired the Flag business for USD207m in early 2004.

### Industry view

The international long distance operators (ILDO) provide International Private leased circuits (IPLC) services in India either with help of a corresponding international telecom entity (ITE) in the end country or on an end-to-end basis, if the Indian ILDO has an ITE license for the end country. Notably IPLC is a point to point private line used by an organization to communicate between offices that are geographically dispersed around the world. At the time of opening up the ILD sector for competition in March 2002, VSNL (Videsh Sanchar Ingmar Ltd) (the incumbent) was the only operator in the international telecom market.

In an attempt to liberalise the sector, the regulators first incorporated the provision for new entrants in the ILD licenses to end VSNL's monopoly in the segment and to ensure fair competition. The sector was further liberalised in 2005-06 as the government reduced the entry fee from INR250m to INR25m and also brought down the annual revenue share from 15% to 6% for all ILDOs.

At present, the Indian international bandwidth business has eleven ILDOs, six cable landing stations (CLS) and nine cable systems.

The regulators are continuing the reform process and in a recent development, TRAI recommended resale in the IPLC segment and access to landing facilities for submarine cables to ILDOs, which do not own CLSs.

Typically, private cable operators sell capacity on cables in terms of indefeasible right of use (IRU). As per our estimates, demand for international private leased circuits and internet leased lines are healthy and VSNL owns c60% of the market share, followed by RCOM (30%) and Bharti (c10%). The demand for international bandwidth is driven by businesses such as BPO firms, telecom and media companies and IT companies.

## Submarine cables – business model

Customers who get into an IRU, typically enter into a long-term contract of 10-15 years and acquire right to use capacity whenever required. Payments are higher in the first five years of the contract and nominal thereafter. The submarine cable companies work on an advance cash basis system and a large part of the contract value accrues to them in the initial period of the contract life. Such type of business model allows them to also finance their capex internally. However, as

**Capacities of submarine cables in India**

| Submarine cable | Landing station | CLS owned by | Type of cable system | Designed capacity of existing cable | Equipped/owned capacity ( Gbps ) |
|---|---|---|---|---|---|
| SMW3 | Mumbai | VSNL | Consortium, protected | 212Gbps | 20 |
| SMW4 | Chennai, Mumbai | Bharti VSNL | Consortium, protected | 1.20Tbps | 20,20 |
| SAFE | Cochin | VSNL | Consortium, unprotected | 5Gbps | 5 |
| FLAG | Mumbai | Reliance | Hybrid, protected | 160Gbps | 20** |
| i2i | Chennai | Bharti | Private, unprotected | 8.40Tbps | 160 |
| TIC | Chennai | VSNL | Private, unprotected | 5.10Tbps | 320 |
| Falcon | Mumbai | Reliance | Private, unprotected | 2.56Tbps | 80 |
| Indo-Sri Lanka Cable | Tuticorn | BSNL | Private, unprotected | 960Gbps | 10 |
| Total | | | | 18.60Tbps | 655 |

**After the arbitration awarded by the International Court, FLAG is allowed to upgrade the capacity to 80Gbps in both the direction.
Source: HSBC

per the accounting norms, submarine cable companies have to apportion the entire revenue on a 15-year basis and the reported revenues are generally a fraction of the total earnings.

The two most important focus areas for submarine cable system is capacity and price maximisation. The pricing environment is largely determined by the competition and the demand scenario.

### Flag and Falcon

In a recent move, the board of RCOM has approved global listing of Flag Telecom. RCOM has announced its plan to list Flag and as its plans to reduce its stake by 15-20%. The primary purpose of the global listing in our view is to unlock the value created in the business. Further, cash raised via such listing will be most likely used to finance future capex plans.

Flag is one of the world's largest cable systems, spanning 65,000km, with focus on Asia and the MEA region. The company also announced USD1.5bn investment in Next Generation Network (NGN), which the management expects to be among the largest IP enabled global undersea cable system operators. The planned investment will be spread over the next three years and entail expansion of the Flag network to c115, 000km. The management also expects presales to finance the USD1.5bn NGN project.

The new offerings are likely to include a multitude of data and video capabilities and upcoming business solutions where multiple applications are being looked at by telecom carriers and enterprises. This will allow the offering of new services with opportunities for higher margins.

### Dispute with VSNL

The award in favour of Flag in arbitration against VSNL will further enhance Flag's capacity for international traffic from India by 80Gbps. However, the matter has been again referred for arbitration on account of dispute on cable station access charges, which were higher according to Flag.

Dispute between the two telecommunications companies goes back a few years as VSNL was accused of denying access to Flag to its CLS.

## Global strategy

With its positioning in Europe, Middle East and South East Asian regions, Flag is well positioned to capture the current demand. These markets will be key drivers for both voice and data over the next few years. The recent opening of the Middle Eastern and African markets will further aid demand for data and voice. In our view, RCOM enjoys a head start in the Middle East as VSNL is unlikely to catch up before 2008. VSNL has announced two consortium cables costing USD600m, one which links India and Europe and the other linking Singapore, Hong Kong and Japan.

We believe the pricing scenario is better in these markets on account of low competition. However, the present volumes are not large enough. Given the business momentum, we expect this sector to witness improvement in volume. A similar pricing environment is expected in the East African market. The Falcon network, with its two landing stations in Saudi Arabia, is set to leverage on Flag capabilities.

The pricing scenario in the Atlantic, Europe and the US route is very competitive as Flag faces competition from other global players in this segment. The India-Europe route is also serviced by three other submarine cables, of which SW4 poses major competition to RCOM, on account of its high capacity.

We believe Falcon cable system will give RCOM opportunity to boost its IPLC market share in India. However, this is unlikely if RCOM is unable to upgrade the landing capacity for Flag. Given that

IPLC customers prefer a redundant line, upgrading Flag Telecom landing capacity would be crucial.

## Impact of recent TRAI moves

### Resale in the IPLC segment

In a recent move, Telecom Regulatory Authority of India (TRAI) has submitted its recommendation for resale in international private leased circuits (IPLC). This move is likely to increase non-facility based competition and provide opportunity to new players to enter the market. TRAI has recommended open competition in the resale of IPLC, without any ceiling on the number of resellers.

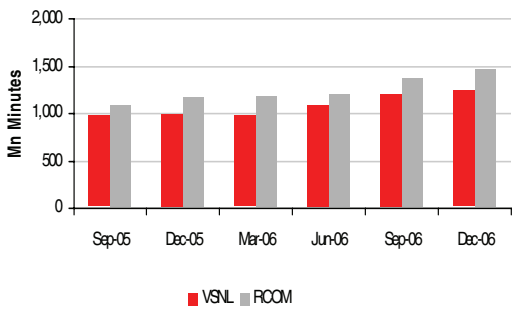
This would allow resellers to enter into agreements with access providers, national long distance service providers and international long distance service providers of IPLC to end consumers. However, resellers will not be allowed to retail bandwidth to other retailers.

However, in our view, the biggest constraint that comes in way of resellers is the imposition of 6% license fee on adjusted gross revenue. This license fee is over and above the license fee being paid by the original ILDO. We view this as negative and believe it to discourage new operators. Given this, we believe that until there is a modification to the 6% license fee on resellers, we are unlikely to see any major impact of these recommendations on the overall IPLC segment.

### Access to essential facilities, including landing facilities for submarine cables

In a recent development, TRAI has recommended access to essential facilities, including landing facilities for CLS. Generally, the submarine cable operator or the owner manages and controls the CLS and in the case of a consortium cable, typically the consortia member in the country where the cable lands manages the landing station.

ILD minutes – RCOM vs. VSNL




Source: Company data and HSBC

The new recommendations are to ensure that new operators have access to capacity in the same way as the consortium members.

Typically, private cable operators sell capacity on cables in terms of indefeasible right of use (IRU). These IRUs are sold through capacity purchase agreements, often asking a buyer to obtain a unit of capacity for the remaining design life of a cable. Operators seeking access to cable landing systems also require grooming services and landing, collocation and virtual collocation facilities in certain cases. The recommendations also suggest the manner in which CLS owners be compensated for the use of their services.

In our view, this bodes well for the overall sector and is likely to ensure more competitiveness in the sector and result in a decline of bandwidth prices. We believe the opening up of the sector allows new operators not to restrict themselves in the role of internet service providers (ISP), and to tap opportunities in the international bandwidth segment. As per reports, many international players, such as BT, Cable & Wireless (C&W), and AT&T, has been keen on entering the enterprise business, which will lead to further competition in the enterprise segment.

However, we believe RCOM, VSNL and other cable bodies with their own infrastructure will have an advantage over the aforesaid players as the latter will be using capacity from VSNL or

RCOM once they acquire contracts. Hence, even if new players secure contracts, the fact that they use capacity from the cable bodies with their own infrastructure, such as RCOM and VSNL, ensures that not only some part of the contract value passes to them, but also higher capacity utilisation.

## NLD and ILD business

The National Long Distance (NLD) segment is one of the most competitive sectors post the reduction of the license fee from INR100m to INR2.5m. As per our estimates, the numbers of players in this segment are likely to increase to c30 by end-2007, which we expect will lead to a tariff war. Admittedly, this is likely to have positive bearing on the volumes, which are expected to increase on account of the price elasticity factor.

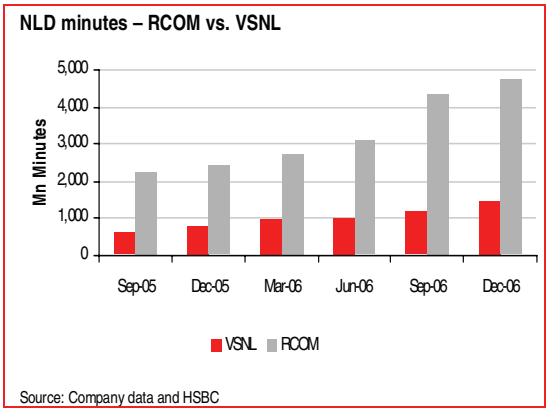
RCOM is at an advantage, compared to VSNL and Bharti, on account of its higher capacity. RCOM has a network of 68,000km of intercity dark fibre, compared to Bharti (39,000km) and VSNL (30,000km). However Bharti has recently announced to extend another 20,000km of fibres.

The volume growth has been robust and is likely to maintain its growth in the coming days on the back of price elasticity.

TRAI has also reduced access deficit charges (ADC) on outgoing international long distance calls recently (reduced to zero from INR0.8 per minute). Further, per minute ADC on incoming international long distance calls have been reduced to INR1 per minute. ADC on percentage of adjusted gross revenue of all service providers has been reduced from 1.5% to 0.75%. TRAI has also exempted rural wire line subscribers from the burden of ADC.

The TRAI move comes on the back of the fact that ADC is a depleting regime and cannot be continued in perpetuity. We view these developments a positive and expect that service providers will pass on the benefits to the subscribers. By our estimates, we expect robust growth in volumes on the back of such price cuts.

Given that lot of new entrants in this segment have entered this space we believe that RCOM will also be able to boost its earnings from leasing its infrastructure to other players. However the net realization from these transactions will be lower and more like wholesale rates.




Source: Company data and HSBC

### Unlocking FLAG

Other players in the international bandwidth segment, namely Level 3 Communications [LVLT US, NR] and Global Crossing [GCBCUQ, NR] trade at an EV/EBITDA of 10x consensus estimates. We would have preferred these metrics to value Flag, but given the current discourses our analysis is limited and we are not attempting to apply any metric to value Flag. RCOM presently does not provide any break up between data and voice revenue, nor does it provide for any separate disclosures on what proportion of revenues accrues to Flag. We believe post IPO disclosures from Flag will improve and this will help us to understand the dynamics of the business much better. Notably our DCF based SOTP valuations factor the overall global business at INR89 which includes both the voice and data business.

We are of the view that the current positioning of RCOM is favourable as it has advantages in untapped markets of Africa and the Middle East.

| RCOM – Global business case | | | | | |
|---|---|---|---|---|---|
| **Fig in INR m** | **2006a** | **2007a** | **2008e** | **2009e** | **2010e** |
| ILD min (in m) | 4,439 | 5,550 | 10,519 | 17,009 | 24,426 |
| NLD min ( in m ) | 9,385 | 17,012 | 20,651 | 27,260 | 35,519 |
| Gross Revenue | 51,858 | 51,771 | 64,498 | 91,598 | 106,001 |
| EBITDA | 6,064 | 12,714 | 15,875 | 23,221 | 27,577 |
| EBITDA % | 12% | 25% | 25% | 25% | 26% |
| Capex | | 14,222 | 19,360 | 22,899 | 23,320 |
| Capex /Sales | | 27% | 30% | 25% | 22% |
| FCF | | 2,436 | 4,826 | 2,130 | -1,711 |
| WACC | 10.6% | | | | |
| SOTP value per share INR | 89 | | | | |

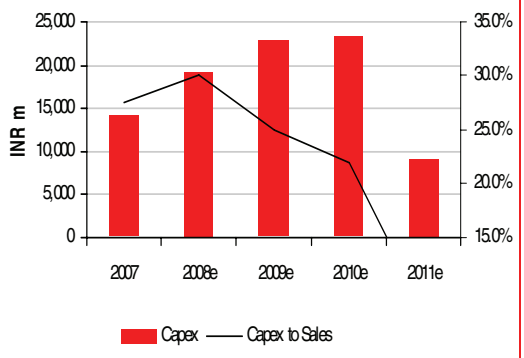
Source: HSBC estimates

Further, the planned capex allows it to provide higher value added services which are likely to result in margin improvement.

### Forecasts and estimates

We expect the voice component of the global business to be beneficiary of the volume growth. As per our estimates the total minutes to grow at an annual rate of 38%. We expect the ILD minutes to grow by c89% on an annual basis and the NLD minutes to grow by 22%. However we expect the realized rates to drop for the voice business and estimate it is around INR0.4.

**Capex and capex to sales – Global business**




Source: Company data and HSBC estimates

Management has indicated that a large part of contract value of USD450m which RCOM bagged in FY07 will be reflected in the global business in the current fiscal FY07-08. We have estimated c72% of the contract value to be realized this year in an attempt to be conservative. We believe that the overall growth in the global revenues will be c37%. We expect global EBITDA margins to be stable at c25%.

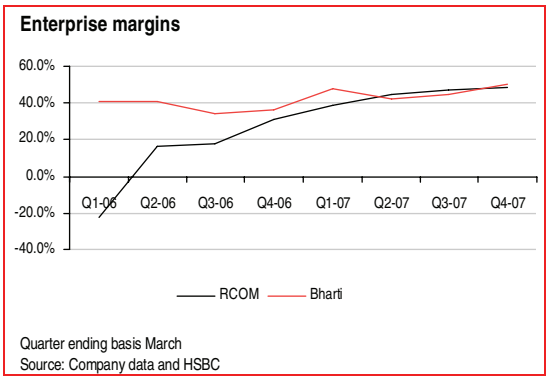
We expect capex at USD450m this year for the overall global business. On a long term perspective we expect the capex to sales for global business to stabilise at 8% of total revenues.

# Broadband business

- RCOM offers largely enterprise based services via its so called broadband business
- The broadband business accounts for c9% of gross revenues and c7% of gross EBITDA
- RCOM plans to add an additional stream with launch of IPTV and DTH services by the end of this fiscal year

## Broadband is actually enterprise

Though RCOM calls this a part of the broadband business, it is more likely the enterprise business that Bharti offers. At present, RCOM connects c0.6m buildings as part of its broadband coverage. The coverage has been increasing rapidly with the number of connected buildings having doubled during the last 12 months.




The broadband business currently operates at 47% EBITDA margin, compared to 45% for Bharti. The average revenue per line for RCOM's enterprise business has been showing a declining trend. We expect it to stabilise at cINR1,500 per subscriber per month by 2011e. Going forward, we expect the overall EBITDA margin to stabilise at c44% by 2012e.

We expect the enterprise revenue to grow at c33% this year. We believe the number of building connected will increase to 0.8m by the end of this fiscal. We expect the capex for this year at USD 150m.

### IPTV and DTH being planned

The residential market in India is primarily narrowband market. As reported by TRAI, India had c7m internet subscribers and 2.3m broadband subscribers. The limited last mile infrastructure is primarily the reason for the limited success of broadband in India. Given the last mile woes, private operators have been exploring wireless broadband platforms, such as iBurst and Wimax. We do not agree with the common view that Wimax is primarily a solution for rural and suburban areas, as the current spectrum crunch in the GSM space makes it an extremely important spectrum management solution for urban areas as well.

RCOM has plans to rollout IPTV and DTH, with the former being an attempt to leverage its huge investments in fibre. BSNL and MTNL have already rolled out IPTV services, with Bharti likely

to join the club. However, the last mile connectivity is likely to continue to be a deterrent for private operators and our analysis shows IPTV services will be largely offered in areas where private operators have investment in fixed line infrastructure. However, for RCOM, the situation is different, as it has huge investments in fibre. It plans to use Ethernet-based technology and MPEG 4 compression to roll out IPTV services. Given that both businesses are at a nascent stage, we have not included them as part of our business model.

**RCOM broadband business case**

| Fig in INR m | 2006a | 2007a | 2008e | 2009e | 2010e |
|---|---|---|---|---|---|
| Subscribers | 256 | 620 | 871 | 1,230 | 1,584 |
| ARPL ( INR ) | 2,177 | 1,699 | 1,614 | 1,562 | 1,532 |
| BB revenue | 5,118 | 11,441 | 15,202 | 20,351 | 26,379 |
| BB EBITDA | 756 | 5,194 | 7,299 | 9,527 | 12,079 |
| BB EBITDA Margins | 15% | 45% | 48% | 47% | 46% |
| Capex | na | -6,262 | -6,553 | -4,129 | -3,245 |
| Capex /Sales | | 55% | 43% | 20% | 12% |
| FCF | | -1,571 | 67 | 4,253 | 7,319 |
| WACC | 10.59% | | | | |
| SOTP value per share INR | 70 | | | | |

Source: HSBC estimates

# The tower company

- RCOM hiving off its towers into a separate tower company
- Growth in minutes of usage and spectrum scarcity are positives for tower companies
- Value of tower business with 12,000 towers assumed at USD2bn

## "Hiving off" rationale

RCOM has been exploring plans to create a separate tower business. During the announcement of 3Q results, management announced that it had approved demerger of the existing wireless towers and related infrastructure of the company and Reliance Telecom (RTL) to its subsidiary, Reliance Telecom Infrastructure (RTIL). Various press reports (Source: *The Economic Times*) have suggested that, going forward, RCOM is likely to rope in private equity in the form of potential partners in the tower business. This was confirmed by RCOM management in the recently held Q4 analyst meet as they said that they planned to unlock value in the tower business by a potential listing, infusion of a strategic partner or a PE fund, or via private placement.

On a national level, almost all telcos, including Bharti, Tata and Idea Cellular (IDEA.IN, NR), are in the process of creating a separate tower company. The tower business is part of the broader trend in the Indian market to try and monetise tower assets. We think it is likely to have an impact on sector-wide asset value. RCOM has been ahead in the process as it has already received shareholders' permission to form a separate tower company and recently obtained court approval on the same as well.

Towers constitute the most significant assets of a wireless operator. However, the current format of the business model does not allow telcos to monetise their towers to the fullest possible extent. We believe "hiving off" towers allows service providers to focus on the branding and marketing side of the business; managing the towers and associated faculties becomes the job of the separate tower company. Further, by hiving off towers from their balance sheets, telcos move to an asset light business model.

We believe the spin-off allows companies to unlock value in their assets, as separate tower entities can earn additional revenue streams and improve their overall cash flows. For a detailed discussion on the towers business, refer to our publication on *Bharti Towering Ahead*, 25 January 2007.

We have not built in any exemption under section 80IA of the Indian Income Tax Act for the tower company, as we believe the tower business doesn't qualify for section 80IA exemptions.

Section 801A allows companies providing telecommunication services to claim 100% deduction of profits in the first five years and 30% deduction in the next 5 years.

Further, Bharti management, in its recent analysts' meeting, following the release of its Q4 results, has confirmed our view that tower companies are not eligible for any tax benefits under section 80IA.

**Infrastructure sharing unlimited**

The current format of infrastructure sharing is limited in its scope, with most of the deals being bi-lateral in nature. We believe the tower company, as a separate entity, has flexibility to go beyond unilateral deals; we see the industry moving to a scenario where towers are shared by multiple operators. We believe this allows operators to reduce their capex and bridge the supply-side gaps profitably to reach remote semi-urban and rural areas. Telecom operators would continue to invest in electronic capex, which forms c40% of the total network capex.

## Business models of tower companies

Tower companies in the US lease space on their towers to wireless service providers. Usually, these tower companies construct tower shelters, diesel generation sites, guard rooms and other civil constructions, and bear the entire capex burden. These companies are also responsible for daily maintenance, such as power and security services, and ensure redundancy/backup services. However, in India, the first stage will begin with tower companies first buying the assets from telcos, as telcos currently own their towers. Reports in *The Economic Times* have suggested that US-based tower companies, such as American Towers and Crown Castle, are planning to explore opportunities in the Indian market.

Once tower companies have assets in place, they will be exploring opportunities to improve the sharing ratio per tower. The present competitive landscape with 6-8 operators gives large enough opportunities to the tower companies to increase the occupancy rates per tower.

Our analysis suggests that if tenants per tower improve from 1.1 to 1.2, the incremental EBITDA margin on the incremental revenue would be c85%.

**India might be different**

Indian markets do share some similarities with the US wireless markets, but we are of the view that the business models of the tower companies in India could be different. While in the US, a large part of the tower assets have been injected into the tower companies, the Indian tower companies are most likely to be involved in the tower building process to a larger extent. The primary reason for this is the fact that Indian wireless growth has just begun and the tower companies have entered the market at a very early stage.

# Drivers for tower companies

**Combined MOU and subscriber growth**

Key growth drivers for the tower industry as a whole would be a combination of robust subscriber growth with healthy growth in minutes. We believe the wireless operators have to invest in towers not only in new towns in which they expand their coverage, but also in existing towns where usage is very high and the existing tower reaches c90% capacity utilisation. Hence, if MOUs continue to rise, the wireless companies would continue to invest in towers to improve their network capacities. With tower companies coming in the picture, they would have a good business case to put up additional towers in such high usage areas.

**Spectrum constraint is positive**

Another key driver for tower companies in the Indian context is the scarcity of spectrum. Operators can improve their network capacities by putting up more antennas on a single tower. However, as this requires more space, the demand for new towers gets generated.

**Speed of deployment**

New towers require permission from local authorities and other regulatory clearances like the Standing Advisory Committee for frequency Allocation of India (SACFA), making the entire process cumbersome for the wireless operator. It then makes business sense for them to hire towers allowing them to save time, as this gives them a ready base to use immediately.

## Valuing the tower business

### Method 1 – independent valuation

We attempt to value the separate tower company that RCOM proposes to form. According to RCOM, it has c12, 000 towers currently.

We value the RCOM tower business assuming a separate tower company is formed with 12,000 towers which uses these assets to lease them to other operators. We assume no further investments by this tower company.

We estimate the separate tower company could be valued at USD2bn. This suggests a price to book value of c2.7x. We have assumed the book value of assets transferred at USD750m as stated by the RCOM in its recently held Q4 result analyst meeting. Our other assumptions are as follows:

- The rental income consists of the operating expenditure component and payment for the use of capital assets. We have calculated the capital charge assuming that the tower company earns an internal return rate (IRR) of 14%. We have further assumed that the tower company charges c75% of the computed capital charge to each operator.
- We have adjusted both the opex and the rental incomes for inflation on a yearly basis.
- Our terminal growth assumption is 2%.
- Tax rate assumed at 33%.

**Different but relevant**

Jyoti Structures (JSL) in India is also in a similar tower business and caters largely to the power sector. However the business model is different from our telco tower company as JSL is involved in the construction of towers while the telco tower company is not. Telco tower construction firms are involved in the process of managing the construction of towers, to ensure benefits from scale. The key driver of RCOM's tower company business model is leasing tower assets and maximising the tenancy per tower. The tower build up process is pursued by players such as Essar Telecom (Not listed, NR), TVS Interconnect (Not listed, NR) and others which are more comparable to JSL.

**RCOM tower business - Independent valuation of existing tower assets**

| Particulars | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|---|
| Opening Towers | 12000 | 12,000 | 12,000 | 12,000 | 12,000 | 12,000 |
| Tenants per tower | | 1.10 | 1.20 | 1.30 | 1.40 | 1.50 |
| Rental per tower | | 42,285 | 43,976 | 45,735 | 47,564 | 49,467 |
| Growth in lease rentals | | | 4% | 4% | 4% | 4% |
| | | | | | | |
| Revenue in millions | | 6,698 | 7,599 | 8,562 | 9,589 | 10,685 |
| Opex/ tower | | 24,025 | 24,986 | 25,986 | 27,025 | 28,106 |
| Adjustment for inflation | | | 4% | 4% | 4% | 4% |
| Total Costs ( INR m ) | | 3,460 | 3,598 | 3,742 | 3,892 | 4,047 |
| EBITDA in millions ( INR m) | | 3,238 | 4,001 | 4,820 | 5,697 | 6,638 |
| EBITDA Margins | | 48% | 53% | 56% | 59% | 62% |
| Operating profit | | 1,104 | 2,016 | 2,974 | 3,980 | 5,041 |
| Operating profit margin | | 16% | 27% | 35% | 42% | 47% |
| EBT | | 1,104 | 2,016 | 2,974 | 3,980 | 5,041 |
| PAT | | 740 | 1,351 | 1,992 | 2,667 | 3,377 |
| WACC | 11% | | | | | |
| Equity FCF | | 2,874 | 3,336 | 3,838 | 4,384 | 4,974 |
| PV of FCF | | 2,874 | 3,016 | 3,138 | 3,241 | 3,325 |
| Terminal Value | | | | | | |
| PV of TV | | | | | | |
| EV | 83,991 | | | | | |
| USD bn | 2.0 | | | | | |
| Price to BV | 2.7 | | | | | |

Source: HSBC estimates

HSBC

# Valuation

- We value RCOM using a DCF-based sum-of-the-parts
- We factor in the potential tower business spin-off and the potential GSM business case into our valuations
- We initiate coverage with an Overweight (V) and target price of INR624

## Valuation

We use a DCF-based SOTP to arrive at our target price for RCOM. RCOM is a challenging company to value at this juncture, given the diverse asset-business mix, the planned spin-off of fibre optic assets, and the lack of guidance on the CDMA-GSM transition strategy. The key risks to RCOM are delays in acquiring GSM spectrum, structural decline in incremental market share, operating margins decline in the CDMA business, and surprises on disclosure.

### SOTP methodology

We use a SOTP valuation methodology to value each business segment separately.

In this approach, we assume that RCOM moves its towers into a separate entity. We assume that the separately-formed tower company monetises its assets by getting into leasing agreements with other telcos. We are assuming that the tower company is separate and there is an arms-length pricing approach between the tower subsidiary and RCOM.

### Tower company strategy

RCOM plans to spin off the tower business in the next six months. Management has announced that it will look for options such as an infusion of strategic partners, a potential listing, and infusion of PE funds or private placement in an attempt to unlock the value of the tower assets. Management indicated a time frame of six months in which it expects to unlock the value of the tower company.

RCOM is pursuing an asset light strategy by shifting the tower capex to the separately formed tower company and the residual electronics and the backhaul capex to be borne by the wireless unit. RCOM management suggested that the tower company will charge rentals to the wireless unit at the market rates.

**SOTP Key assumptions**

| SBU | WACC | Terminal growth rate | EV/EBITDA | | EV/Sales | | EBITDA Margins | |
|---|---|---|---|---|---|---|---|---|
| | | | FY08e | FY09e | FY08e | FY09e | FY08e | FY09e |
| Wireless Unit | 10.6% | 2% | 12.0 | 8.4 | 4.6 | 3.2 | 38% | 39% |
| Broadband | 10.6% | 1% | 20.0 | 15.3 | 9.6 | 7.2 | 48% | 47% |
| Global Unit | 10.6% | 1% | 11.6 | 7.9 | 2.9 | 2.0 | 25% | 25% |
| Tower unit | 10.6% | 2% | 42.4 | 29.2 | 19.9 | 16.8 | 52% | 55% |

Source: HSBC estimates

| SOTP assumptions | |
|---|---|
| **SOTP key assumptions** | |
| Risk Free rate | 5.0% |
| Market risk premium | 8.5% |
| Beta | 1.0 |
| Cost of equity | 13.5% |
| Cost of debt | 8.0% |
| WACC | 10.6% |

Source: HSBC

### Why are we valuing this way?

| Rentals for RCOM tower company (INR) | |
|---|---|
| Capex per site (INRm) | 2.5 |
| Repayable period | 15 |
| IRR | 14% |
| | |
| Capital charge | (33,919) |
| Charge per operator share | 75% |
| Capital charge per operator | 25,439 |

Source: HSBC estimates

The higher capex estimates by the company in FY08e and the announcement of the separately-formed tower company clearly suggests that RCOM is pursuing a two-point agenda of higher market share and monetising its assets. RCOM's FY08e capex is c47% higher than that for FY07e. RCOM has already announced plans to move to GSM, which would require even more towers. CDMA is spectrally efficient and we believe that most likely RCOM will be allocated spectrum in the 1,800MHz band; the requirement of towers would be higher.

Spectrum continues to be a deterrent for RCOM in moving to GSM at the moment; however, the higher capex for FY08e suggests that the increasing investments are in preparation for the GSM business. RCOM has suggested that it will be adding c20, 000 towers this year, and we believe these towers will be built in a fashion that they can be also used for GSM in the future. Moreover, we expect that most wireless companies will be building towers in a fashion which supports c3-4 tenants per tower.

### Key Assumptions to valuations

- We are assuming that the RCOM's wireless business sells the tower assets to the separately-formed tower company and the tower company assumes debt to finance the assets. The cash per share component in our SOTP table reflects the cash earned from the sale of tower assets.
- RCOM management has stated that 12,000 towers in the wireless units have been transferred to the separately formed tower company at USD750m.
- We have stripped out RCOM's wireless business from the infrastructure assets and adjust the EBITDA for the rentals it pays to the tower company. These capital charges allow RCOM to claim tax benefit.
- The capital charge is assuming that tower companies generate c15% IRR from the same in a period of 15 years. We have assumed that the tower company charges c90% to the operators for the total capital charge.
- We have assumed that the tower company charges the telcos rentals for using the assets. We have assumed that RCOM is also charged equivalent rentals by the separately-formed tower company.
- For the tower company, we have assumed that it continues to invest in a similar manner in tower assets as RCOM mobile services would have done, if there was no spin off. Basically, we have shifted our wireless tower capex to the separately-formed tower company.
- We have adjusted both the rentals and the opex for inflation. The rental component also consists of opex charge from operators. We have assumed that power costs are fully borne by the operator; however, for other opex items, the tower company charges c60% of the total opex from the operators.
- Our tax rate assumptions for the tower company don't factor in any benefit of deductions from section 801A of the Indian

Income Tax Act. We have assumed a tax rate of c33% for the tower company.

- RCOM management has suggested applicability of tax rates in the range of c12% on the overall business. Our tax rate assumption for FY08e is 11.5% and FY09e is 12.5%.

## RCOM Target Price and rating

Our DCF-based SOTP approach gives us a fair value of INR624 per share. Our price target suggests c31% potential total return from current levels. As this is above the Neutral band for Indian stocks of +/- 10ppts around our hurdle rate of 13.5%, we rate the stock Overweight (V).

**Computation of target price**

| SBU | Value per share (INR) |
|---|---|
| RCOM Ex mobile Towers | 352 |
| RCOM BB& Landline | 70 |
| RCOM Enterprise | 89 |
| Separate tower company | 97 |
| Cash per share | 16 |
| RCOM target price | 624 |

Source: HSBC estimates

## Risks to valuation

**Upside risks, in our view, include:**

- Earlier-than-expected telecom industry consolidation might lead to reduced competitive intensity and higher margins in the Indian telecom market. Should this happen, RCOM would gain from potential margin expansion
- Earlier than expected release of 2G GSM spectrum would position RCOM better for rapid market share expansion and would be an upside risks to our valuations.
- We expect c80% of mobile demand to be met by FY10e; however, infrastructure sharing on a larger scale could result in an expanded market and may have a positive bearing on RCOM's valuation.
- The recent recommendation of TRAI on active infrastructure allows potential capex savings. However, with these developments still at a discussion stage we have not factored them in our valuation. An earlier than acceptance by DOT would mean savings on capex and would have a positive bearing on our valuations.
- RCOM capex contracts are valued in dollars and an appreciation in rupee may provide marginal savings on the capex, primarily the

**Financials of the tower company**

| Particulars (Figures in INR m) | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|---|
| Opening Towers | 12000 | 29,150 | 34,744 | 39,397 | 68,126 | 76,317 |
| Incremental towers build | | 17,150 | 5,593 | 4,653 | 28,729 | 8,191 |
| Tenants per tower | | 1.10 | 1.20 | 1.30 | 1.50 | 1.60 |
| Rental per tower(INR) | | 46983 | 48862 | 50817 | 52849 | 54963 |
| Growth in lease rentals | | | 4% | 4% | 4% | 4% |
| | | | | | | |
| Revenue in millions | | 18,078 | 24,446 | 31,231 | 64,807 | 80,537 |
| Opex/ tower( INR ) | | 24,025 | 24,986 | 25,986 | 27,025 | 28,106 |
| Adjustment for inflation | | | 4% | 4% | 4% | 4% |
| Other costs-Admin and HR | | 362 | 489 | 625 | 1,296 | 1,611 |
| Total Costs | | 8,766 | 10,906 | 12,910 | 23,390 | 27,351 |
| EBITDA in millions | | 9,313 | 13,540 | 18,322 | 41,418 | 53,186 |
| EBITDA Margins | | 52% | 55% | 59% | 64% | 66% |
| Operating profit | | 7178 | 5888 | 10090 | 33355 | 39569 |
| Operating profit margin | | 40% | 24% | 32% | 51% | 49% |
| EBIT | | 7178 | 5888 | 10090 | 33355 | 39569 |
| NOPLAT | | 4809 | 3945 | 6760 | 22348 | 26511 |

Source: HSBC estimates

electronics capex, and may have a positive bearing on valuations.

**Downside risks, in our view, include:**

- Delayed 2G spectrum sanction or selective spectrum allocation will have a negative bearing on RCOM's valuations. Our base case assumes release of 2G spectrum by late 2009 or early 2010.
- RCOM has yet to release an annual report and any surprises on the annual report may have a negative bearing on investor sentiment and valuations.
- Rural expansion may have a negative impact on the ARPU and the EBITDA margins in the short to medium term and would be a downside risk to valuation.
- Downside risk also exists if a spectrum crunch limits RCOM's growth or aids competitor growth in key metro markets, which could potentially have an impact on RCOM's churn rate.
- Higher than expected competition in the international business is likely to lead to a rapid decline in prices and may have an negative impact on global business margins
- A slower or more expensive transition to GSM may have a negative bearing on valuations
- Given the potential regulatory/operational and partner challenges the international expansion strategy may have a negative bearing on valuations.
- A higher than expected churn of CDMA subscribers in the process of migration from GSM to CDMA may have a negative bearing on valuation.

## Bharti – valuation and risks

In an attempt to capture all the valuations in our target price, we have computed our valuation using a weighted average approach by assigning equal probabilities to both SOTP and PEG approaches.

**Valuation (INR)**

| Valuation approaches | Fair price | Probability | |
|---|---|---|---|
| PEG | 860 | 0.5 | 430 |
| SOTP | 1,162 | 0.5 | 581 |
| Target price | | | 1,011 |

Source: HSBC estimates

We have an Overweight rating on the stock with a target price of INR1, 011. The principal downside risks to Bharti, in our view, are a sustained de-rating of the Indian equities market or a sharp deterioration in the returns associated with rural wireless.

## China Unicom – valuation and risks

We rely on short-term PE-based valuation multiples for the Chinese telcos based on our view that the best set of relative comparables are domestic consumption play companies. We used the mid-value of 2007 and 2008 earnings estimates for China Unicom and use an 18x PE multiple to derive our target price of HKD12.32. Our rating is Neutral. There could be an upside risk to CU if its CDMA and GSM businesses perform even better than our current forecasts, while the downside risk could stem from higher than estimated marketing and interconnect costs or a potential industry restructuring.

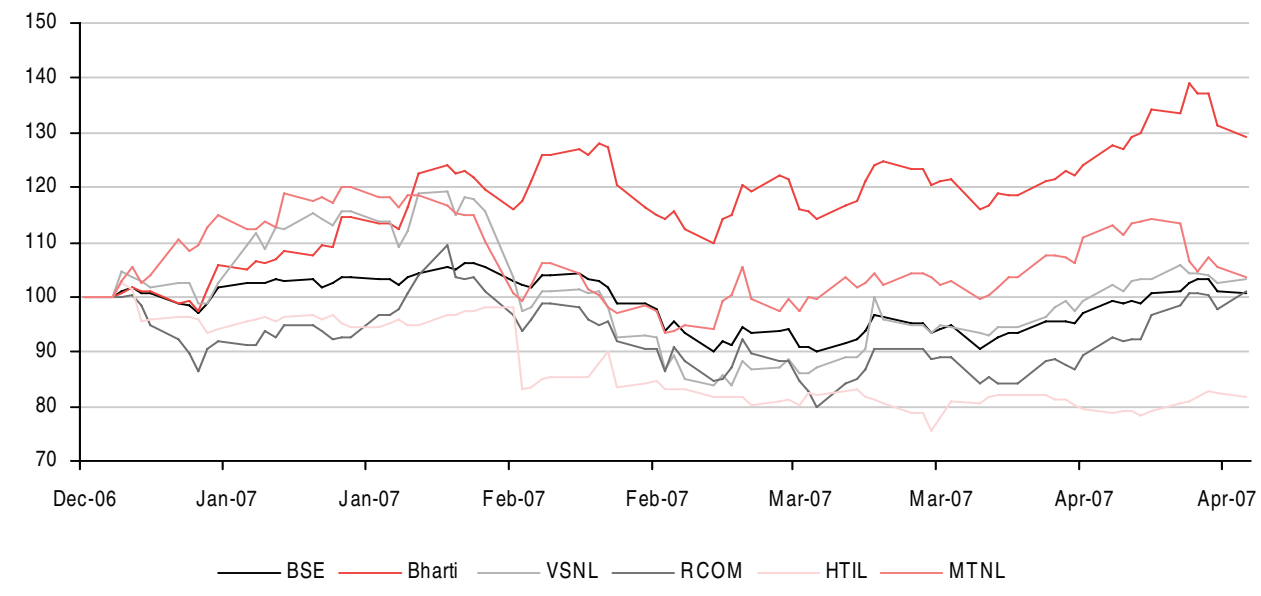
### Relative performance of telcos

Bharti has out performed the sensex and the Indian based telecom pack on YTD basis this year. Bharti's stock price has moved up by 29% on YTD basis and RCOM stock moved up by 1% on YTD basis. RCOM has been in line with sensex on YTD basis with both moving up c1% on YTD basis.

On a six month perspective as well Bharti has out performed the Indian telecom pack with 53% returns followed by RCOM which moved up by c26% during the same period.

Please note that we have considered price as on 30th April, 2007 as our last price for the purpose of above computations.

**Relative performance of the telcos - YTD basis**




Source: DataStream and HSBC estimates

**Comparative valuations of Indian telcos**

| Company | Ticker | CMP | Rating | Target Price | Upside Potential | Mcap (USD) | EV (USD) | PE | | EV/EBITDA | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | FY08e | FY09e | FY08e | FY09e |
| MTNL | MTNL.IN | 148 | N | 171 | 16% | 2220 | 1731 | 18.2 | 15.9 | 5.0 | 4.7 |
| HTIL | 2332.HK | 16 | N | 17 | 4% | 1815 | 2393 | 22.7 | 13.8 | 6.0 | 5.0 |
| Bharti | BHARTI.IN | 812 | OW | 1,011 | 25% | 36637 | 37859 | 26.8 | 20.4 | 14.9 | 11.0 |
| RCOM | RCOM.IN | 477 | OW | 624 | 31% | 30377 | 34050 | 22.0 | 14.0 | 17.1 | 12.1 |
| VSNL | VSNL.IN | 438 | NR | na | na | 3002 | 3123 | 24.3 | 21.8 | 11.4 | 10.4 |
| Idea Cellular | IDEA .IN | 115 | NR | na | na | 7069 | 7815 | 35.4 | 26.1 | 14.4 | 10.4 |
| | | | | | | | Mean | 24.9 | 18.7 | 11.5 | 8.9 |

N is Neutral, OW for Overweight and NR for Not rated.
Source: MTNL, HTIL , Bharti and RCOM as per HSBC estimates. Idea and VSNL as per IBES estimates.

**RCOM – HSBC vs. IBES estimates**

| Figures in INR m | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|
| Sales | | | | |
| Mean | 147,153 | 206,891 | 270,012 | 349,957 |
| High | 154,196 | 217,694 | 304,702 | 398,282 |
| Low | 144,650 | 195,202 | 238,554 | 321,884 |
| HSBC Estimates | 144,683 | 202,923 | 284,894 | 353,257 |
| Variance | -2% | -2% | 6% | 1% |
| EBITDA | | | | |
| Mean | 57,824 | 85,033 | 113,190 | 149,569 |
| High | 58,904 | 90,158 | 132,702 | 174,882 |
| Low | 56,895 | 78,842 | 102,416 | 135,107 |
| HSBC Estimates | 57,209 | 83,444 | 118,649 | 148,930 |
| Variance | -1% | -2% | 5% | 0% |
| EPS | | | | |
| Mean | 14.7 | 22.1 | 30.2 | 36.8 |
| High | 15.9 | 24.0 | 37.2 | 45.7 |
| Low | 13.5 | 20.0 | 23.8 | 28.6 |
| HSBC Estimates | 15.9 | 21.7 | 34.0 | 42.6 |
| Variance | 8% | -2% | 13% | 16% |

Source: IBES and HSBC

HSBC

**Profit and Loss Account**

| INR mn, y/e 31/3 | 2007a | 2008F | 2009F | 2010F | 2011F | 2012F |
|---|---|---|---|---|---|---|
| Profit & Loss | | | | | | |
| Revenue | 144,683 | 202,923 | 284,894 | 353,257 | 461,051 | 545,212 |
| Change | 34.4% | 40.3% | 40.4% | 24.0% | 30.5% | 18.3% |
| EBITDA clean | 57,701 | 83,635 | 118,877 | 149,164 | 162,087 | 199,834 |
| Change | 101.4% | 44.9% | 42.1% | 25.5% | 8.7% | 23.3% |
| Margin | 39.9% | 41.2% | 41.7% | 42.2% | 35.2% | 36.7% |
| Exceptional | 0 | 0 | 0 | 0 | 0 | 0 |
| EBITDA | 57,209 | 83,444 | 118,649 | 148,930 | 161,885 | 199,648 |
| Depreciation | -24,653 | -31,662 | -38,117 | -47,703 | -54,407 | -97,678 |
| Operating profit clean | 32,556 | 51,783 | 80,531 | 101,226 | 107,478 | 101,970 |
| Change | 289.2% | 59.1% | 55.5% | 25.7% | 6.2% | -5.1% |
| Margin | 22.5% | 25.5% | 28.3% | 28.7% | 23.3% | 18.7% |
| Operating profit | 32,253 | 51,783 | 80,531 | 101,226 | 107,478 | 101,970 |
| Non-op exceptional | 0 | 0 | 0 | 0 | 0 | 0 |
| PBIT clean | 32,556 | 51,783 | 80,531 | 101,226 | 107,478 | 101,970 |
| PBIT | 32,253 | 51,783 | 80,531 | 101,226 | 107,478 | 101,970 |
| Interest paid | -1,052 | -2,086 | -1,100 | -1,072 | -1,026 | -1,710 |
| Interest received | 1,048 | 376 | 44 | 44 | 311 | 662 |
| Interest | -4 | -1,710 | -1,056 | -1,029 | -715 | -1,048 |
| PBT clean | 32,552 | 50,072 | 79,475 | 100,198 | 106,763 | 100,922 |
| Change | 532.3% | 53.8% | 58.7% | 26.1% | 6.6% | -5.5% |
| PBT | 32,249 | 50,072 | 79,475 | 100,198 | 106,763 | 100,922 |
| Tax clean | -4,937 | -5,758 | -9,934 | -13,026 | -13,879 | -15,138 |
| Tax rate clean | 15.17% | 11.50% | 12.50% | 13.00% | 13.00% | 15.00% |
| Tax non-clean | 0 | 0 | 0 | 0 | 0 | 0 |
| Tax | -611 | -5,758 | -9,934 | -13,026 | -13,879 | -15,138 |
| Tax rate | 1.9% | 11.5% | 12.5% | 13.0% | 13.0% | 15.0% |
| Minorities | 0 | 0 | 0 | 0 | 0 | 0 |
| Net profit clean | 27,615 | 44,314 | 69,541 | 87,172 | 92,884 | 85,784 |
| Net profit | 31,638 | 44,314 | 69,541 | 87,172 | 92,884 | 85,784 |
| Number of shares (mn) | 1,970 | 2,045 | 2,045 | 2,045 | 2,045 | 2,045 |
| EPS clean | 13.90 | 21.67 | 34.01 | 42.64 | 45.43 | 41.96 |
| Change | 0.0% | 914.6% | 55.9% | 57.0% | 25.4% | 6.6% |
| EPS | 15.9 | 21.7 | 34.0 | 42.6 | 45.4 | 42.0 |
| Change | 577.7% | 35.9% | 57.0% | 25.4% | 6.6% | -7.6% |
| DPS | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Change | | | | | | |

Note: The above financials don't include any revenues from the possible spin off as discussed in our SOTP approach.
Source: Company for Actual and HSBC for estimates

HSBC

**RCOM – Cash flow statement**

| INR mn, y/e 31/3 | 2007a | 2008F | 2009F | 2010F | 2011F | 2012F |
|---|---|---|---|---|---|---|
| C/f from ops | 76,047 | 84,828 | 125,295 | 154,778 | 175,063 | 211,368 |
| Interest + minrty divs | 0 | -1,710 | -1,056 | -1,029 | -715 | -1,048 |
| Tax | -713 | -4,288 | -5,758 | -9,934 | -13,026 | -13,879 |
| Capex + investment | -64,375 | -102,475 | -113,915 | -109,357 | -126,206 | -93,502 |
| Dividends paid | 0 | 0 | -1,205 | -1,321 | -2,466 | -3,816 |
| Net c/f pre financing | 10,959 | -24,658 | 4,565 | 34,458 | 35,117 | 102,939 |
| Financing | 8,227 | -108,187 | -4,565 | -7,686 | 0 | 0 |
| Change in cash | 19,186 | -132,845 | 0 | 26,772 | 35,117 | 102,939 |

Note: The above financials don't include any revenues from the possible spin off as discussed in our SOTP approach.
Source: Company for Actual and HSBC for estimates

**RCOM – Balance Sheet**

| INR mn, y/e 31/3 | 2007a | 2008F | 2009F | 2010F | 2011F | 2012F |
|---|---|---|---|---|---|---|
| Intangible assets | 0 | 0 | 0 | 0 | 0 | 0 |
| Tangible assets | 330,423 | 401,236 | 477,034 | 538,688 | 610,486 | 606,310 |
| Investments | 11,925 | 11,915 | 11,915 | 11,915 | 11,915 | 11,915 |
| Fixed assets | 342,348 | 413,151 | 488,949 | 550,603 | 622,401 | 618,225 |
| Stocks | 0 | 4,821 | 5,195 | 7,187 | 8,815 | 11,381 |
| Debtors | 4,821 | 54,242 | 54,616 | 56,608 | 58,236 | 60,802 |
| Investments + cash | 54,242 | 137,200 | 4,355 | 4,355 | 31,127 | 66,244 |
| Current assets | 137,200 | 196,263 | 64,166 | 68,150 | 98,178 | 138,428 |
| Loans & borrowings | 196,263 | -136,013 | -136,013 | -136,013 | -136,013 | -136,013 |
| Other creditors | -136,013 | -43,173 | -45,742 | -60,549 | -72,744 | -91,908 |
| Creditors < 1 year | -43,173 | -179,186 | -181,755 | -196,562 | -208,757 | -227,921 |
| Net current assets | -179,186 | 17,077 | -117,590 | -128,412 | -110,579 | -89,494 |
| Assets less current liabs | 17,077 | 359,425 | 295,562 | 360,538 | 440,024 | 532,908 |
| Creditors > 1 year | 155,438 | 47,251 | 42,686 | 35,000 | 35,000 | 35,000 |
| Provisions | 0 | 10 | 10 | 10 | 10 | 10 |
| Minority interests | 59 | 59 | 59 | 59 | 59 | 59 |
| Equity shrhldr funds | 203,928 | 248,242 | 317,783 | 404,955 | 497,839 | 583,623 |
| Total | 359,425 | 295,562 | 360,538 | 440,024 | 532,908 | 618,692 |

Note: The above financials don't include any revenues from the possible spin off as discussed in our SOTP approach.
Source: Company for Actual and HSBC for estimates

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# Disclosure appendix

## Analyst certification

The following analyst(s), who is(are) primarily responsible for this report, certifies(y) that the views expressed herein accurately reflect their personal view(s) about the subject security(ies) and issuer(s) and that no part of their compensation was, is or will be directly or indirectly related to the specific recommendation(s) or views contained in this research report: Tucker Grinnan

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This report addresses only the long-term investment opportunities of the companies referred to in the report. As and when HSBC publishes a short-term trading idea the stocks to which these relate are identified on the website at www.hsbcnet.com/research. Details of these short-term investment opportunities can be found under the Reports section of this website.

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## Rating definitions for long-term investment opportunities

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HSBC assigns ratings to its stocks in this sector on the following basis:

For each stock we set a required rate of return calculated from the risk free rate for that stock's domestic, or as appropriate, regional market and the relevant equity risk premium established by our strategy team. The price target for a stock represents the value the analyst expects the stock to reach over our performance horizon. The performance horizon is 12 months. For a stock to be classified as Overweight, the implied return must exceed the required return by at least 5 percentage points over the next 12 months (or 10 percentage points for a stock classified as Volatile*). For a stock to be classified as Underweight, the stock must be expected to underperform its required return by at least 5 percentage points over the next 12 months (or 10 percentage points for a stock classified as Volatile*). Stocks between these bands are classified as Neutral.

Our ratings are re-calibrated against these bands at the time of any 'material change' (initiation of coverage, change of volatility status or change in price target). Notwithstanding this, and although ratings are subject to ongoing management review, expected returns will be permitted to move outside the bands as a result of normal share price fluctuations without necessarily triggering a rating change.

*A stock will be classified as volatile if its historical volatility has exceeded 40%, if the stock has been listed for less than 12 months (unless it is in an industry or sector where volatility is low) or if the analyst expects significant volatility. However,

stocks which we do not consider volatile may in fact also behave in such a way. Historical volatility is defined as the past month's average of the daily 365-day moving average volatilities. In order to avoid misleadingly frequent changes in rating, however, volatility has to move 2.5 percentage points past the 40% benchmark in either direction for a stock's status to change.

Prior to this, from 7 June 2005 HSBC applied a ratings structure which ranked the stocks according to their notional target price vs current market price and then categorised (approximately) the top 40% as Overweight, the next 40% as Neutral and the last 20% as Underweight. The performance horizon is 2 years. The notional target price was defined as the mid-point of the analysts' valuation for a stock.

From 15 November 2004 to 7 June 2005, HSBC carried no ratings and concentrated on long-term thematic reports which identified themes and trends in industries, but did not make a conclusion as to the investment action that potential investors should take.

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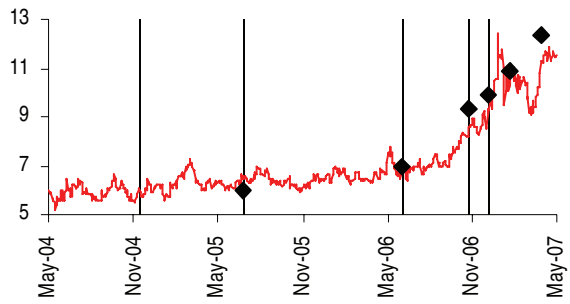
| | | |
|---|---|---|
| **Overweight (Buy)** | 42% | (15% of these provided with Investment Banking Services) |
| **Neutral (Hold)** | 37% | (16% of these provided with Investment Banking Services) |
| **Underweight (Sell)** | 21% | (14% of these provided with Investment Banking Services) |

## Share price and rating changes for long-term investment opportunities

**China Unicom Share Price performance HKD Vs HSBC rating history**



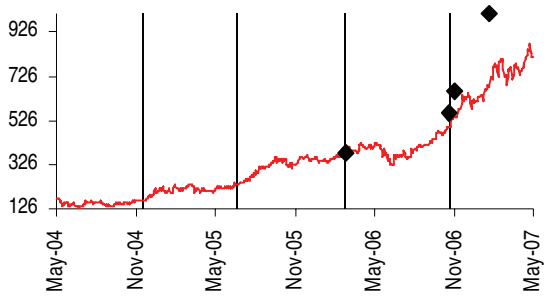

Source: HSBC

**Recommendation & price target history**

| From | To | Date |
|---|---|---|
| N/A | N/R | 15 November 2004 |
| N/R | Underweight | 24 June 2005 |
| Underweight | Neutral | 05 June 2006 |
| Neutral | Overweight | 26 October 2006 |
| Overweight | Neutral | 08 December 2006 |
| **Target Price** | **Value** | **Date** |
| Price 1 | N/R | 15 November 2004 |
| Price 2 | 6.00 | 24 June 2005 |
| Price 3 | 7.00 | 05 June 2006 |
| Price 4 | 9.30 | 26 October 2006 |
| Price 5 | 9.90 | 08 December 2006 |
| Price 6 | 10.90 | 24 January 2007 |
| Price 7 | 12.32 | 30 March 2007 |

Source: HSBC

**Bharti Airtel Share Price performance INR Vs HSBC rating history**




Source: HSBC

**Recommendation & price target history**

| From | To | Date |
|---|---|---|
| Buy | N/R | 15 November 2004 |
| N/R | N/A | 22 June 2005 |
| N/A | Neutral | 24 February 2006 |
| Neutral | Overweight | 23 October 2006 |
| **Target Price** | **Value** | **Date** |
| Price 1 | N/R | 15 November 2004 |
| Price 2 | 376.00 | 24 February 2006 |
| Price 3 | 560.00 | 23 October 2006 |
| Price 4 | 660.00 | 02 November 2006 |
| Price 5 | 1011.00 | 24 January 2007 |

Source: HSBC

## HSBC & Analyst disclosures

**Disclosure checklist**

| Company | Ticker | Recent price | Price Date | Disclosure |
|---|---|---|---|---|
| CHINA UNICOM | 0762.HK | 11.56 | 02-May-2007 | 6, 7 |
| RELIANCE COMMUNICATION | RLCM.NS | 477.10 | 02-May-2007 | 4 |

Source: HSBC

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