Company report

Telecoms, Media & Technology **Wireless Telecoms** Equity - India



Underweight (V)

Target price (INR) 270.00 Share price (INR) 310.15 Potential total return (%) -12.9

Mar	2009a	2010e	2011e
HSBC EPS	22.34	24.24	18.50
HSBC PE	13.9	12.8	16.8
Performance	1M	3M	12M
Performance Absolute (%)	1M 11.0	3M -3.4	12M -0.2

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

1 April 2010

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Bharti Airtel

UW(V): Success at Zain with minute factory model not obvious

- Benefit from Zain deal depends on success with replicating minute factory model; success not obvious and distant
- ► Earnings outlook bleak; FY11e EPS 17% below consensus
- Maintain UW(V) and TP at INR270

Meaningful opportunity but challenging. Given the low wireless penetration (c35%) and low usage (one third of Bharti MOUs) in African markets where Zain operates, the opportunity to grow Zain's earnings seems to be meaningful. However, the success of Bharti's intended strategy via the minute factory model is not obvious. Successful accretion from the deal is distant (FY14e) and the potential accretion by FY17e is estimated to be a relatively modest (c24%). We have not changed our estimates in this report but our analysis is based on pro forma scenario analysis of a combined Bharti-Zain business.

Challenges in replicating the minute factory model. The challenges are: a) tariff cuts and elasticity – the experience from Kenya is discouraging; b) high taxes remain a barrier to cutting tariffs; c) networks costs for Zain are c3x of Bharti – infrastructure sharing will be important; d) Bharti needs to replicate the model separately in all 15 markets and a generalised approach will not work in Africa, in our view. Providing a local flavour in each market will be important.

Earnings outlook still bleak. Our FY11e EPS numbers for Bharti are 17% below consensus. We see tariffs hitting new lows fuelled by 2G market share wars. In addition, the Zain acquisition is expected to be EPS dilutive (18% in FY11e and 11% in FY12e). Bharti may also have to bid aggressively for 3G spectrum in India as less stable players will see this as their last chance to gain a foothold in India.

Below consensus. We estimate EPS FY10-12 CAGR of -4% versus consensus at 8%. Our target price is 14.5x FY11e earnings (excluding Zain) and 18x including Zain. We have not changed our estimates in this report; maintain UW(V) and TP of INR270.

Re-rating catalyst. Per our sensitivity analysis, if Zain margins were to improve by c600bps by FY12e, the deal may be earnings neutral. We believe margin expansion at Zain will be a function of a pick-up in usage and market share gains. Ability to align capex contracts for Zain closer to Indian unit costs will be a key longer term positive. Further ability to monetise tower assets and reduce debt will be a key upside risk.

Index^	BOMBAY SE SENSITIVE INDEX
Index level	17,645
RIC	BRTI.BO
Bloomberg	BHARTI IN

Enterprise value (INRm)	1,176,810
Free float (%)	
Market cap (USDm)	26,094
Market cap (INRm)	1,177,719
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Source: HSBC Source: HSBC



Contents

Zain acquisition: Key strategic		Opportunities with Zain Africa	17
challenges	4	Tower sharing and possibility	17
Analysing the strategic challenges	4	Mobile banking	18
Catch up capex	4	3G opportunity and status	18
High taxation limits growth	5		
Handset subsidy – another deterrent	6	India: 3G losers may	
Rebranding will be another big challenge	6	aggravate price wars	19
		Viability of new players	19
Minute factory model –critical		India: 3G spectrum fair value at cUSD9.3bn	20
success factor	7		
Minute factory model approach	7	Valuations and risks	22
What is the 'minute factory' model?	7	Valuation and risks	22
Cost reduction and low cost business model	9	Upside risks and catalysts for Bharti Downside risks from Zain	23 23
How will Bharti go about			
turning around Zain	11	Disclosure appendix	28
Bharti game plan	11	B: 1 ·	0.4
Zain's earnings discussion	12	Disclaimer	31
Sensitivity	14		
Zain's five key markets and			
the bull case	15		
Summary	15		
Bull case discussion	16		



Financials & valuation

Financial statements				
Year to	03/2009a	03/2010e	03/2011e	03/2012e
Profit & loss summary (INR	m)			
Revenue	369,615	400,170	407,332	495,489
EBITDA	151,678	163,876	138,110	175,446
Depreciation & amortisation	-47,581	-59,607	-61,080	-64,803
Operating profit/EBIT	104,097	104,269	77,030	110,642
Net interest	-11,613	5,183	4,836	2,165
PBT	93,073	112,334	86,590	121,734
HSBC PBT	93,073	107,725	86,590	121,734
Taxation	-6,615	-13,984	-14,534	-26,692
Net profit	84,699	96,539	70,145	92,829
HSBC net profit	84,699	91,931	70,145	92,829
Cash flow summary (INRm)			
Cash flow from operations	125,393	159,563	158,408	140,117
Capex	-140,171	-83,776	-162,571	-125,892
Cash flow from investment	-140,171	-83,776	-162,571	-125,892
Dividends	-7,584	0	0	-28,495
Change in net debt	27,531	-67,838	10,521	12,432
FCF equity	-25,221	86,460	2,795	19,077
Balance sheet summary (I	NRm)			
Intangible fixed assets	40,364	39,419	37,254	35,306
Tangible fixed assets	409,136	439,522	501,808	564,844
Current assets	144,079	165,571	173,839	175,365
Cash & others	49,154	95,763	102,744	95,107
Total assets	603,947	656,133	921,865	994,053
Operating liabilities	170,498	152,552	190,736	193,940
Gross debt	118,801	97,572	115,073	119,868
Net debt	69,646	1,809	12,330	24,761
Shareholders funds	303,945	393,635	603,723	667,901
Invested capital	373,926	396,196	419,421	486,468

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Note: p	price at	close of	26 Mar	2010
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Ratio, growth and per share	e analysis			
Year to	03/2009a	03/2010e	03/2011e	03/2012e
Y-o-y % change				
Revenue	36.8	8.3	1.8	21.6
EBITDA	33.4	8.0	-15.7	27.0
Operating profit	36.2	0.2	-26.1	43.6
PBT	21.6	20.7	-22.9	40.6
HSBC EPS	26.3	8.5	-23.7	32.3
Ratios (%)				
Revenue/IC (x)	1.2	1.0	1.0	1.1
ROIC	27.3	22.3	15.4	19.7
ROE	32.2	26.4	14.1	14.6
ROA	18.6	15.6	9.6	10.5
EBITDA margin	41.0	41.0	33.9	35.4
Operating profit margin	28.2	26.1	18.9	22.3
EBITDA/net interest (x)	13.1			
Net debt/equity	22.1	0.4	2.0	3.6
Net debt/EBITDA (x)	0.5	0.0	0.1	0.1
CF from operations/net debt	180.0	8822.5	1284.8	565.9
Per share data (INR)				
EPS reported (fully diluted)	22.34	25.46	18.50	24.48
HSBC EPS (fully diluted)	22.34	24.24	18.50	24.48
DPS	2.00	0.00	0.00	7.51
Book value	80.15	103.79	159.19	176.11

Valuation data				
Year to	03/2009a	03/2010e	03/2011e	03/2012e
EV/sales	3.4	2.9	2.9	2.4
EV/EBITDA	8.2	7.2	8.6	6.8
EV/IC	3.3	3.0	2.8	2.5
PE*	13.9	12.8	16.8	12.7
P/Book value	3.9	3.0	1.9	1.8
FCF yield (%)	-2.1	7.4	0.2	1.6
Dividend yield (%)	0.6	0.0	0.0	2.4

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



Zain acquisition: Key strategic challenges

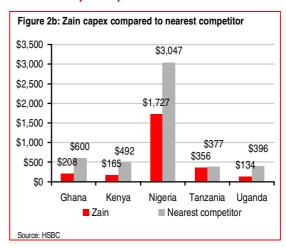
- Zain losing market share, estimated catch-up capex estimated at USD1.5bn
- High taxes and Mobile Termination Rates likely to prevent significant tariff cuts
- Rebranding may cause short-term disruptions

Analysing the strategic challenges

The key challenges Bharti faces in improving margins at Zain's African operations are:

- The need to invest incremental capex to drive scale and network coverage
- High tax and mobile termination rates in African countries limit Bharti's ability to cut tariffs and apply the minute factory model
- Operational risks from the process of integrating Zain and rebranding.
- Currency risk of operating in 15 countries, especially as African currencies have plunged against the dollar in recent times.

Catch up capex



One of the main reasons for Zain losing market share (refer figure 2a) is the lack of investment in network expansion/coverage compared to its peers

Figure 2a: Zain loss of market share			
Countries	Sep-09	Sep-08	Loss in %
Zambia	70%	74%	-4%
Malawi	72%	74%	-2%
Burkina Faso	51%	53%	-2%
Congo B	53%	64%	-11%
Uganda	37%	38%	-1%
Nigeria	25%	32%	-7%

Source: HSBC, Company data



(Figure 2b). We estimate additional capex at USD2.3bn, with spending required in Ghana, Kenya, Nigeria, Tanzania, and Uganda. We arrive at this number after comparing Zain's capex with the market leader in each market.

However, given our assumption of a pick up in infrastructure sharing, we estimate the actual capex will be USD1.5bn which implies infrastructure sharing should save USD0.8bn (Figure 2c).

Figure 2c: Zain incremental capex required

Countries	USDbn
Ghana	0.4
Kenya	0.3
Nigeria	1.3
Tanzania	0.0
Uganda	0.3
Total capex required	2.3
Less Bharti synergies	-0.8
Net capex required	1.5

Source: HSBC estimates

High taxation limits growth

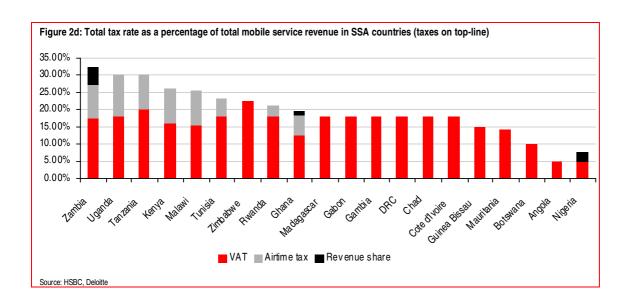
High taxes in many markets limit the ability to cut prices quickly from current levels as the disposable revenue per minute for each operator is substantially lower than actual tariffs.

The airtime tax rates are high in Africa (Figure 2d) with VAT on communication services ranging from 5% to 23%. In addition, some countries,

particularly in East Africa, add an excise charge on mobile and fixed calls. VAT and excise taxes combined add significantly to the cost of calls. Another major concern is the high Mobile Termination Rates (MTR) in Africa which make off net calls expensive. This has resulted in an increase in subscribers holding multiple SIM cards in order to make on-net calls at a c50-60% discount to off-net calls.

Governments in South Africa and Kenya have brought down the inter-connect rates but they generally remain high in most countries in the region. The issue of high taxation is being tabled with governments but it will take time to bring them down as interconnect changes have to come down first.

Moreover, taxes are not allowed to be passed on to the consumers. The GSM Association has conducted several studies on the impact of taxes on mobile penetration based on the Total Cost of Mobile Ownership (TCMO), which consists of taxes on handsets, subscription and airtime. According to the latest study, Tanzania and Uganda are among the top five in terms of tax as a percentage of TCMO. The GSM Association study found that a reduction in customs duty resulting in a 1% drop in the price of a handset in



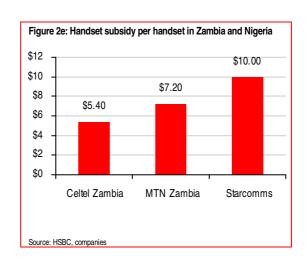


Africa could boost mobile penetration by 2.4%. Moreover, a 1% reduction in TCMO taxes could increase penetration by 0.5%. The study also observes that elasticity of demand is estimated to be higher in Africa than elsewhere, reflecting the potential for further marginal consumers.

Another study conducted by the Uganda Communications Commission found that consumers are using payphones more, due to higher taxes on mobile services. It concludes that elimination of the mobile excise tax would have resulted in more than 50% increase in demand between 2007 and 2010. Following the findings, in June last year, Uganda government waived the import duty of 16% on mobile phones. However, a 10% tax on airtime vouchers is still prevalent, hence the cost of calls and text messages remain at the same price. Moreover, the lack of an integrated licensing regime has increased the cost of telecommunication service expansion.

Handset subsidy – another deterrent

A number of mobile operators in Africa provide handset subsidies to customers in order to drive higher penetration (Figure 2e) as there was a lack of proper distribution network for handsets. However, with the handset distribution channel developing in the country, the subsidy has started to come down. The subsidies are also coming down because, for operators, it doesn't make any business sense to provide subsidies in Africa which is predominantly a prepaid market, and c40% of users hold dual SIMs.



Rebranding will be another big challenge

Zain finished the expensive rebranding from Celtel to Zain in 2008. In most key markets, where it faced strong competitor, Zain lost market share during the exercise (Nigeria and Kenya for example). In Zambia, the company spent c2.5pp of EBITDA margins despite the fact that it had 80% market share and strong EBITDA margins (above 50%, according to local reports).

We believe Bharti will be in a hurry to re-brand so it can make significant marketing initiatives. We believe rebranding may cost Bharti cUSD200m on a pan-African level and may have a short-term disruptive impact at the operational level. However, re-branding expenses are likely to be amortised over a period of 8-10 years.



Minute factory model – critical success factor

- While reducing costs will play a key role, longer term success will depend on the usage elasticity/tariff cuts
- While there is meaningful scope as MOUs are low; GDP per capita in Zain markets suggest limited ARPU upsides
- Network sharing and IT outsourcing may improve margins

Minute factory model approach

Bharti has made it clear that the basic game plan at Zain is to export its low cost business model. We believe there are two key issues – cutting costs and bringing down tariffs gradually to grow usage. We believe usage elasticity with regard to tariff cuts holds the key to success.

Figure 3a: Bharti's minute factory model

Items	Mar-06	Dec-09	Growth
MOU (in minutes)	431	446	3%
Subscribers (in 000s)	19,579	118,864	507%
Total minutes (in bn)	23.2	153.5	561%
Minutes per day (m)	258	1705	561%
Revenue per minute (in USD)	0.03	0.01	-57%
Cost per minute (in USD)	0.02	0.01	-58%
EBITDA per minute (in USD)	0.01	0.01	-54%
Revenue (in USDm)	758	2172	186%

Source: Company data, HSBC

Bharti replicated the minute factory model in India by rolling out lifetime plans in the first stage, followed by lower tariffs on outgoing calls for these plans. Lifetime plans not only fuelled subscriber growth and gradual tariff cuts but led to a rapid rise in the number of total minutes (Table 3a). Post replication of the minute factory model, minutes for

Bharti at grown by 561%, while tariffs have gone down by 57%.

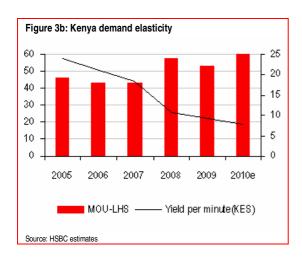
What is the 'minute factory' model?

This 'minute factory' model treats airtime as a perishable commodity and attempts to maximise network utilisation (capacity utilisation). The best way to understand the 'minute factory' model is to imagine telecom networks as factories generating minutes: they try to maximise the throughput by maximising the consumption of minutes.

This can be accomplished in two ways: (1) by maximising the subscribers per base transceiver station (BTS) and (2) by maximising the minutes per subscriber. Consumption of minutes is a function of tariffs and, to achieve high network utilisation, service providers tend to gradually reduce tariffs to benefit from usage buoyancy.

This not only drives usage buoyancy but also has a positive read-across for subscriber growth, as it reduces the total cost of owning mobile services for the subscribers. While Bharti has mastered this model, pricing usage structures tend to be driven by industry dynamics rather than operator-specific strategies.





Initially, we believe it is unlikely that Zain will replicate the model completely, opting instead for gradual adoption. Lower-tariff, high-usage models often come with big increases in capex. We note that both Indonesia and China have moved to the low-cost minute model over the past two years, with major spikes in capex to support massive increases in traffic volume.

There is meaningful scope...but

The conditions are similar in Africa, in our view. While reported subscriber penetration is 34%, we believe this is overstated because of the dual SIM phenomenon. Usage levels are low in Africa with total MOUs at 120, only a third of Bharti's subscriber per month usage.

However, the unknown variable is elasticity. Our analysis suggests that most of the African markets have not seen significant tariff cuts so it is too early to comment on elasticity.

Markets like Kenya (figure 3b) show that increase in usage levels has not been enough to compensate for tariff declines. Comments from the top management of Zain Zambia are also not encouraging. During their last conference call they were clear about elasticity – usage increases but ARPU stays at USD4-5.

Another data point which worries us is the GDP/capita in the 15 markets in which Zain operates. The numbers are very close to low revenue contributing markets in India, characterised by poor ARPU (table 3c). In this table we have tried to calculate the upside in ARPU and MOU in the 15 countries Zain operates by mapping the Indian circles with similar GDP to Zain's markets.

For example, Nigeria has a GDP per capital close to Delhi and Haryana. For our analysis we have taken Delhi's ARPU since Delhi's GDP is higher than Haryana. We arrive at Delhi's MOU assuming the revenue per minute (RPM) of cINR0.5. When we compare this estimated MOU and ARPU to its current APRU and MOU, we

Figure 3c: Estimates of Zain's key parameters

Countries	•	Indian Circles with similar GDP	India ARPU (USD)	India MOU (minutes)	Zain ARPU (USD)	Zain MOU (minutes)	ARPU upside (%)	MOU upside(%)
Zambia	1,248	Haryana, Punjab	5.1	456	10.0	95	-49%	378%
Niger	391	Madhya Pradesh, U.P.	3.7	334	9.6	82	-61%	307%
Malawi	313	Madhya Pradesh, U.P.	3.7	334	7.3	79	-49%	325%
Burkina Faso	578	Rajasthan, Orissa	3.6	320	8.2	55	-57%	481%
Tanzania	520	Rajasthan, Orissa	3.5	312	7.2	103	-52%	204%
Chad	863	Kerala, Karnataka, Gujarat	5.2	469	8.9	98	-42%	380%
Congo B	185	Bihar	3.3	297	16.1	126	-79%	135%
Gabon	7,414	Delhi	6.9	624	35.1	252	-80%	148%
Uganda	455	Assam, J&K	4.7	426	5.8	93	-19%	357%
Sierra Leone	332	Madhya Pradesh, U.P.	3.7	334	7.7	196	-52%	70%
Madagascar	468	Assam	4.7	426	7.2	98	-35%	333%
DRC	171	Bihar	3.3	297	8.3	126	-60%	136%
Kenya	838	Gujarat, Karnataka, Kerala	5.2	469	4.6	110	13%	324%
Ghana	739	Gujarat, Karnataka, Kerala	5.2	469	NA	NA	NA	NA
Nigeria	1,401	Delhi, Haryana	6.9	624	9.3	92	-25%	581%
•		•	4.6	412.6	10.4	114.6	-56%	260%



find there is a potential upside of c581% in MOU. However, this upside may come at a cost of c25% potential downside in ARPU for Zain's operations in Nigeria.

Figure 3d: Bharti and Zain – per minute analysis Items (in USD cents) Bharti Zain Revenue per minute 1.15 6.09 Cost per minute 0.80 4.14 EBITDA per minute 0.35 1.95

Source: HSBC

Doing a similar calculation for all 15 Zain markets, we find that although Bharti on average has the potential to raise MOU c260% it comes at a cost of c56% downside in ARPU.

To sum up, Bharti's strategy should be focused more on cost reduction and driving usage elasticity in tandem with market share gain. For this to work we believe Bharti will have to bring its network up to the same level as its competitors, which we estimate would involve capex of cUSD1.5bn (figure 2c).

Another practical limitation for aligning the African operations to an Indian business model is the limited ability to cut tariffs on off-net calls. This is driven by the prevalence of higher rates for MTC and other regulatory levies. In our view taxes will not go down that quickly. MTR are going down gradually but are still at a high level.

Cost reduction and low cost business model

The cost of operating in Africa is much higher than in India. The capex per tower is 3-4x higher and maintenance costs per cell site c3x (due to higher power costs). Tower rollout is also slow and tower sharing, though gaining momentum, is less prevalent than in India. Per our analysis the single largest cost item is clearly network opex and maintenance.

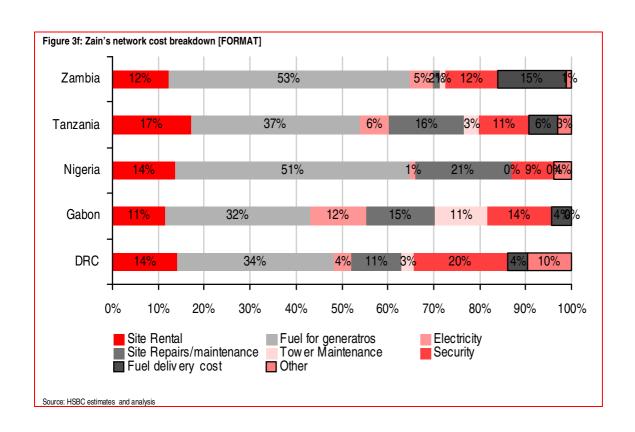
One solution is to invest in energy efficiency and distribution efficiency, both big capex items. Some of these costs are down to poor infrastructure and we can't expect Bharti to improve power grids and roads in two years.

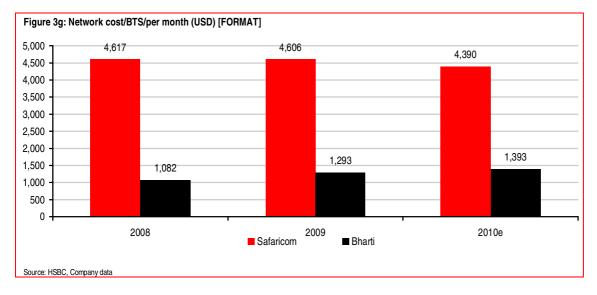
Another is infrastructure sharing, not easy given the limited number of operators in each market, but gaining momentum as operators penetrate rural areas.

Figure 3e: Zain key markets cost breakdown (%)							
Items	DRC	Gabon	Nigeria	Tanzania	Zambia		
Network operations & maintenance costs	25%	9%	20%	18%	7%		
Operations costs per site	37%	39%	62%	58%	56%		
Other operations costs	1%	6%	-13%	2%	0%		
Total Network Operations & Maintenance costs	63%	54%	69%	79%	64%		
Total Leased Lines costs	21%	7%	7%	8%	7%		
Regulatory costs	16%	39%	24%	13%	29%		

Source: HSBC estimates and analysis









How will Bharti go about turning around Zain

- ➤ Zain deal EPS dilutive until FY13e; ability to raise equity may allow Bharti to repay debt and bring forward earnings accretion
- Our scenario analysis doesn't factor in catch up capex and rebranding expenses for Zain
- ▶ Improvement of Zain EBITDA margins by 600bps may lead to EPS accretion in early FY12e; we view this as an upside risk

Bharti game plan

Bharti faces a challenging task as Zain has been losing market share. So the first step from Bharti's perspective would be to step up capex spend over the next 24 months. We believe due to poor network coverage, Zain has suffered market share losses and stepping capex will allow Bharti to position for market share gains. However, there are practical issues in Africa to deploy BTS rapidly and as such, even we consider this capex plan to be over a period of 24 months. Moreover Bharti will try and drive network sharing and the

process of spreading investments may allow an opportunity to save going forward.

The next game plan likely to be pursued by Bharti in our view would be to get aggressive on on-net calling, and wait for declines to happen on MTC before it can attempt getting aggressive on off-net pricing as well. If Bharti were to get aggressive in pricing on-net calls aggressively from day one, it may prove to be revenue destructive. Bharti in our view needs to attempt aggressive pricing only after it has the network in place. We believe that if capex plans are put in place immediately, Bharti

Figures in INRm	2011	2012	2013	2014
Revenue	407,332	495,489	576,558	635,748
YoY growth	2%	22%	16%	10%
EBITDA	138,110	175,446	207,299	231,853
YoY growth	-16%	27%	18%	12%
margin	34%	35%	36%	36%
Depreciation	-61,080	-64,803	-68,808	-74,635
Depreciation %	-12%	-11%	-12%	-13%
Net Profit	70,145	92,829	112,173	126,427
YoY growth	9%	9%	9%	9%
margin	17%	19%	19%	20%



Figure 4b: Zain's Performa financials Figures in INRm 2011 2012 2013 2014 Revenue 189,851 224,801 255,648 283,458 YoY growth 90,466 FRITDA 62.710 76,327 101,284 YoY growth 22% 19% 12% 33% 34% 35% 36% margin Depreciation -37,787 -43,301 -47,859 -48,359 Depreciation % -14% -15% -16% -16% **Net Profit** 9.083 13.304 18.165 23.336 YoY growth -380% 46% 37% 28% margin 5% 6% 7% 8%

Source: HSBC estimates, Zain's financials are aligned as per Bharti's March 31 financial year closing

may attempt this over 9-12 months. Post this Bharti may gradually attempt to explore elasticity on on-net calling and coverage ramp-up in our view should allow for market share gains. We believe Bharti will attempt to explore elasticity benefits on net calls and follow it on off-net calls as and when the MTC comes down. In doing all this, competitive intensity will also pick up and may prevent rapid market share gains or the gains may happen but ARPU dilution could be higher.

Keeping this approach in mind, we have laid out our estimates for Zain operations and we provide our perspective on few of them. Given that regulatory approvals are yet to come in, we are not including Zain numbers in our Bharti forecast but given the progress of the deal so far we believe the deal is very likely and we provide proforma consolidated numbers including Zain.

Zain's earnings discussion

Nigeria

Nigeria- FY10 revenues are projected to increase by increase in gross additions and reduction in monthly churn. One issue clearly in Nigeria has been the loss in market share by Zain and significant subscriber churn.

We are building for an incremental investment of USD1700m over the next three years in Nigeria operations. The capex for the company in Nigeria was c40% lower than MTN, at USD795m in CY08, which is expected to rise further with MTN's CY09 capex rising to at USD1, 524m. As we plug in higher capex numbers, we also build in for market share gain and assume that Zain will be able to come closer to 2008 market share. While we factor some benefits from infra-sharing but poor sate of infra-sharing so far, we remain

Figures in INRm	2011	2012	2013	2014
Revenue	597,183	720,290	832,206	919,206
YoY growth	6%	21%	16%	10%
EBITDA	200,820	251,773	297,764	333,137
YoY growth	-7%	25%	18%	12%
margin	34%	35%	36%	36%
Depreciation	-98,867	-108,104	-116,667	-122,995
Depreciation %	13%	13%	13%	14%
Net Profit t	79,228	106,133	130,338	149,763
YoY growth	-11%	34%	23%	15%
margin	13%	15%	16%	16%



Figure 4d: Bharti Zain deal: Impact on Bharti's EPS Items FY12e FY13e FY14e FY11e EPS - HSBC estimates (INR) 33.34 18.50 24.48 29.58 Adjusted Zain net income Africa business estimates (USD m) 519 Zain estimates in INR m 9,083 13,304 18,165 23,336 Adjustments Interest expense USD10 bn of net cash paid (INR m) -573 -620 -575 -465 Tax benefit from Interest paid 115 124 115 93 -372 Net impact (USD m) -458 -496 -460

-22,002

15.09

-18%

Source: HSBC estimates

Net Impact (INR m)

Revised EPS (INR)

EPS accretion/(dilution)

conservative and only factor a marginal increase in EBITDA in next 12 months. However FY11e numbers factor in c200 basis point margin expansion given the likely market share gains. We are worried that competitive intensity may lead to tariff declines and ARPU dilution.

DRC

While growth opportunities in Democartic Republic of Congo (DRC) are significantly driven by the low penetration, higher deactivations has resulted in revenue slippage in FY09. We expect this to improve going forward; however increased tax on usage from 4% to 7% prevents margin expansion. The market, with five operators, remains competitive.

Tanzania

Revenue and EBITDA declines in the market over the last 12 months have been primarily driven by decline in revenue per minute by c25% with no corresponding usage benefit or MOU pick up. However with Bharti's intervention we estimate lower subscriber churn and margin expansion. Our assumptions for CY11 are estimated at margins of 31% and in the longer term at 34%. We are not factoring any incremental capex in this market.

Kenya

Market leader Safaricom has a clear first mover advantage with 78% market share. The data points from the market are discouraging on elasticity trends as well. However, in 2009, there was a clean-up operation which resulted in a reduction of subscriber

base by c10%. We view this as one-off and factor market share improvement by 170basis points over the next 12 months. Given this, we assume margin expansion of 150bps. However, we do raise our capex estimates by 40% as well.

-23,791

21.71

-11%

-22,089

28.54

-17,872

34.78

4%

Zain soft integration issues

We believe that Africa should not be mistaken as a single country and Bharti would make strategic mistake to generalize the African market. As Africa consists of 53 countries, to operate successfully it is important to understand the dynamics of each country, including differences in culture, language and especially regulations. A more localized management team would be a longer term positive approach. Given this minute factory model has to be applied in all 15 markets separately and will have to be given a local flavour, success will be difficult in our view. So if one aspect of elasticity works favourably in Nigeria that may not be so in Uganda and the subscribers may respond differently.



Figure 4e : Zain's African markets parameters

Countries	Mark	et Share (%)		AF	PU (USD)		EBITD	A Margins (%)	1
	FY09	FY10	FY11	FY09	FY10	FY11	FY09	FY10	FY11
Zambia	73%	69%	67%	13	8	8	50%	47%	48%
Niger	70%	67%	66%	12	10	10	46%	47%	45%
Malawi	71%	71%	69%	11	9	8	43%	41%	41%
Burkina Faso	52%	51%	49%	10	7	6	42%	41%	40%
Tanzania	36%	39%	38%	9	5	5	42%	39%	38%
Chad	66%	58%	56%	13	10	9	39%	44%	42%
Congo B	56%	52%	52%	16	13	12	37%	27%	29%
Gabon	61%	63%	59%	31	25	23	45%	44%	43%
Uganda	23%	20%	23%	7	4	4	22%	12%	17%
Sierra Leone	27%	31%	32%	10	7	7	19%	6%	13%
Madagascar	37%	38%	38%	8	5	5	16%	22%	24%
DRC	35%	35%	35%	11	8	8	22%	21%	25%
Kenya	19%	12%	14%	5	5	5	-15%	14%	15%
Ghana	2%	9%	14%	10	6	5	-223%	-72%	5%
Nigeria	27%	21%	23%	10	7	7	36%	33%	34%

Source: HSBC estimates

While the long-term accretion is positive, the near-term visibility is not there. Given the earnings dilution over the next three years, investors may get an opportunity to get into the stock at lower levels.

Sensitivity

Per our sensitivity analysis, if margins at Zain operations move up by 700 bps in FY12e, the EPS accretion may initiate from FY12 compared to FY14.



Zain's five key markets and the bull case

- Nigeria, Gabon, DRC, Zambia and Tanzania are the key markets for Zain Africa
- ▶ Together they account for 70% of Zain Africa's EV; synergies needed in Nigeria to have impact on valuation
- Bull case scenario values Zain at USD10.3bn

Summary

Our base case estimates suggest that the five key markets for Zain Africa are Nigeria, Gabon, DRC, Zambia and Tanzania. Combined, they contribute around 70% to Zain Africa's EV, 69% to 2010 EBITDA and 66% to 2010 revenue.

If Bharti can replicate its low cell site cost model (USD1,000-1,200 per tower in India, USD3,500 in Africa) it will generate opex savings and grow margins. We do not see key cost items like airtime

taxes and handset subsidies disappearing or falling as a result of the change of ownership. If all these costs go down it will benefit the entire African telco industry rather than a specific player.

Another potential area of cost saving could be on trade commissions to dealers which is currently around 9-11% of total cost in Africa.

A low cost capex model would help save on potential depreciation charges, which, though a

Figure 5a: Zain's		ODD Dev	Windoo	7-in aubaanibana	Maukat	ahava	7 ainta		Commonts
Countries	Population (in 000's)	GDP Per Capita		Zain subscribers Sept-09 (in 000's)	Market	Snare	Zain's stake (%)	3G status	Comments
	333 3)	(USD, PPP)	(%)		Sep-09	Sep-08	(,,,		
Zambia	12,453	1397	33%	2,940	70%	74%	79%	Available	
Niger	15,412	691	16%	1,432	67%	67%	90%	Available	
Malawi	14,766	850	17%	1,711	72%	74%	100%	Available	
Burkina Faso	15,772	1259	23%	1,444	51%	53%	100%	Available	
Tanzania	45,782	1352	33%	4,764	39%	36%	60%	Available	
Chad	11,480	1670	19%	1,194	70%	66%	100%	Available	
Congo B	3,951	4044	75%	1415	53%	64%	90%	Available	
Gabon	1,375	14747	123%	870	62%	59%	90%	Available	
Uganda	33,276	1148	35%	2,243	37%	38%	100%	Available	
Sierra Leone	6,095	728	39%	555	46%	46%	100%	Available	
Madagascar	20,901	995	23%	1,425	38%	36%	100%	Available	
DRC	67,470	340	14%	3,569	45%	44%	99%	Available	
Kenya	39,888	1735	48%	2,191	17%	17%	95%	Available	
Ghana	24,537	1513	61%	1208	9%	0%	75%	Available	
Nigeria	155,770	2142	45%	14,936	25%	32%	66%	Available	

Source: HSBC, Company data



non-cash item, would definitely lead to bottomline expansion. Currently, Zain Group's depreciation rate to total fixed asset is around 17%, which erodes profits.

Bull case discussion

Sensitivity analysis using margins and cost of capital

Our base case estimates suggest African EV of USD 5.7bn (post minorities). For figure 5b, we have tried to calculate the incremental value Bharti could create by improving Zain's EBITDA margins and reducing its cost of capital in the five key markets.

Our sensitivity analysis on two value drivers – EBITDA margins and cost of capital – suggests that if Bharti can improve EBITDA margins and reduce the cost of capital to 12%, with other variables remaining unchanged, it would create incremental value of USD6.2bn.

Of the five key markets, Nigeria is the swing factor. Nigerian EV increases to USD6.9bn from the current USD2.8bn, driven by improvement in EBITDA and reduction in cost of capital to 12%.

2, Sensitivity analysis using margins and market share

Our base case estimates suggest African EV of USD 5.7bn (post minorities). For figure 5c, we have tried to calculate the incremental value x

Figure 5b: Incremental EV from Zain using sensitivity ana

Markets		Base case			Bull case		Incremental EV (USDm)
	EBITDA	Cost of capital	EV (USDm)	EBITDA	Cost of capital	EV (USDm)	Bull Case
DRC	21%	15%	568	41%	12%	1186	618
Gabon	44%	15%	353	50%	12%	604	251
Nigeria	33%	15%	2809	49%	12%	6966	4157
Tanzania	39%	15%	685	45%	12%	1463	778
Zambia Total incremental EV	47%	15%	570	49%	12%	1005	435 6239



Opportunities with Zain Africa

- Network sharing is gaining momentum; however presence of limited operators makes it challenging
- M-commerce and M-Banking a key growth opportunity
- 3G services to drive growth in data offerings

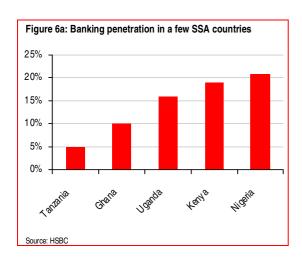
Tower sharing and possibility

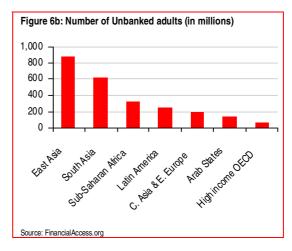
Infrastructure sharing is a relatively new concept in Africa; however in some markets it has gained considerable momentum, particularly in Nigeria, Ghana and South Africa. At present it is restricted to the passive elements of operator's base stations.

We view tower sharing a good opportunity for operators in Africa to drive down costs, as many countries are experiencing saturation and hypercompetition. Companies including MTN, Vodacom, Zantel, Zain and others have been involved in tower sharing in recent times. However, Local loop unbundling (LLU - wherein incumbent's network is shared among competing

operators), is largely absent in Africa. The Economic Community of West African States (ECOWAS) is mandating LLU for dominant operators in member states, which would likely be positive for smaller operator in the region.

Another concern is that in many African countries, nationwide connectivity has often been neglected as networks are clustered around urban areas, and hence in many regions backhaul infrastructure is microwave and not higher capacity fibre optic.







Mobile banking

There is a strong potential for mobile payments across SSA. In most markets the demand for mobile banking would be very strong due to the extremely low banking penetration and high demand to channel money from urban centres to the countryside (most of the initial flows) as well as international remittances. The potential is large for mobile operators as their nationwide coverage represents a convenient distribution channel for money transfers and more sophisticated financial services. However, regulations are not always supportive of mobile payments. Even in countries where regulations were very supportive such as Kenya, regulations still need to improve before mobile operators could benefit from mobile payments

Zain has a strong presence in mobile banking and won the inaugural Global System for Mobile Award (GSMA) 2010 'Mobile Money for the Unbanked Service' award. Bharti can further consolidate Zain's position in mobile application market; primarily Mobile banking, M-commerce (pricing information for rural farmers and to pay for goods and services). In Africa, citizens owning a mobile connection outnumber citizens that have a bank account. This, in our view, provides a huge opportunity for Bharti to bring financial services to a largely untapped consumer base.

3G opportunity and status

African players hold average spectrum of c15 MHz, much higher that what operators hold in India. Hence spectrum constraints are not an issue for Bharti in Africa. Infact, most operators, with technology and regulation permitted (since spectrum is a scare resource, governments monetize spectrum) can easily offer 3G services. Moreover, compared to fixed broadband, 3G deployments have a greater scope in these markets as fixed broadband operators face a number of challenges including 1) limited availability, 2) poor condition, 3) difficult terrain, and 4) the lack

of competition in market. We note that in absence of cable access and the limited availability of ADSL in many markets, fixed broadband prices are very high in many African countries, and penetration is low. In our view, this provides a good potential for 3G services in African regions.

The African market is also poised to witness strong growth in data on the back of the submarine cables landing. 3G mobile operators will be the largest beneficiaries as they have the largest networks to provide a mass market retail product. In markets that already have access to submarine cables, operators have seen a huge increase on data usage, primarily on handsets. Declining net book prices will also fuel growth when prices go beyond the USD100 floor.



India: 3G losers may aggravate price wars

- No significant cut in headline rates after shift to billing per second; conversion to per second plans continues
- We believe those who lose in the 3G auctions may aggravate price wars; regulator initiatives on consolidation will play a key role
- ▶ We estimate fair value for 3G and BWA spectrum at USDc9.3bn

Post 3G scenario is uncertain

There have been no significant tariff cuts since the industry starting shifting to per second billing plans. However, we do expect the revenue per minute to be under pressure as subscriber conversion to lower rate plans continues.

Plans for 3G spectrum auctions are progressing smoothly, but only three private players have the capability to provide 3G services and capture data opportunities. So operators who lose out at the auctions will have to make the most of the existing 2G space and this may trigger another round of tariff cuts. Uninor and Aircel will both soon have a pan-India footprint, which will only increase the level of overcapacity.

On-net calling plans have been pushed by operators this quarter. The current plans are not value destructive and new offers may boost operators' revenue per minute. Estimated growth in minutes was reasonable in 3Q and we believe this will continue in 4Q. However, the first two quarters of FY11e are likely to be poor from the usage buoyancy perspective, largely because of cyclicality.

Viability of new players

According to our analysis, to breakeven new players need to clock at least 300,000 minutes per base station per month. Assuming current tariffs and revenue per minute of INR0.43, subscribers per tower at 800, usage per subscriber per month should be equal to or higher than 350 minutes.

This, in our view, will be a challenge. Another way to achieve this would be to have more subscribers per tower. To sum up, options for new operators are limited and we don't see a business case for 14 players and consolidation is very likely.



Figure 7a: Mobile minutes carried per cell site (m) **4Q FY08** 1Q FY09 1Q FY10 2Q FY10 Items 2Q FY09 3Q FY09 4Q FY09 3Q FY10 Bharti 1.29 1.39 1.40 1.40 1.40 1.46 1.44 1.50 Idea 1.12 1.20 1.09 1.02 1.00 1.01 0.98 1.03

Source: HSBC, Company data

India: 3G spectrum fair value at cUSD9.3bn

We estimate fair value for pan India 3G spectrum at cUSD7.5bn and USD1.8bn for BWA spectrum. In our view, if operators pay more than estimated it will be negative for the sector. Our valuations use a bottom-up approach and assume 11% as the likely IRR (Figures 8a and 8b). Our conservative valuations are based on our view that 3G take-up will be gradual, given the limited presence of 3G enabled handsets (at present only 30m subscribers have 3G handsets).



Circles	Danamia milaa	Number of blocks	Multiple	Tatal Assatian	Duine was Mile was	Dries was Mile was
Circles	(USDm)	Number of blocks	Multiple	Price (USDm)	Price per MHz per POP (USD)	
Andhra Pradesh	71	4	2.5x	711	0.5	1.7
Gujarat	71	4	1.8x	498	0.5	1.2
Karnataka	71	4	3.5x	996	0.9	2.6
Maharashtra	71	4	3.5x	996	0.6	2.1
Tamil Nadu	71	4	3.5x	996	0.8	2.8
Haryana	27	4	1.0x	107	0.3	0.7
Kerala	27	4	1.0x	107	0.2	0.3
Madhya Pradesh	27	4	1.0x	107	0.1	0.5
Punjab	27	5	1.0x	133	0.2	0.4
Rajasthan	27	4	1.3x	139	0.1	0.4
U.P. (East)	27	4	1.0x	107	0.1	0.4
U.P. (West)	27	4	1.0x	107	0.0	0.3
West Bengal	27	5	1.0x	133	0.1	0.1
Assam	7	4	1.0x	27	0.1	0.1
Bihar	7	5	1.0x	33	0.0	0.1
Himachal Pradesh	7	5	1.0x	33	0.2	0.3
J&K	7	5	1.0x	33	0.1	0.2
North East	7	4	1.0x	27	0.1	0.3
Orissa	7	4	1.0x	27	0.0	0.1
Delhi	71	4	3.0x	853	3.1	3.1
Kolkata	27	4	1.4x	144	0.9	0.9
Mumbai	71	4	3.5x	996	2.5	2.5
Total	778			7,307		

Source: HSBC estimates

Figure 7c: Estimated	BWA spectrum au	iction per our model				
Circles	Reserve price (USDm)	Number of blocks	Multiple	Total Auction Price (USDm)	Price per MHz per POP (USD)	
Andhra Pradesh	36	3	2.0x	213	0.0	0.2
Gujarat	36	3	1.5x	160	0.1	0.1
Karnataka	36	3	1.2x	128	0.0	0.1
Maharashtra	36	3	2.0x	213	0.0	0.1
Tamil Nadu	36	3	1.4x	149	0.0	0.1
Haryana	13	3	1.0x	40	0.0	0.1
Kerala	13	3	1.3x	50	0.0	0.1
Madhya Pradesh	13	3	1.0x	40	0.0	0.1
Punjab	13	3	1.3x	50	0.0	0.1
Rajasthan	13	3	1.5x	60	0.0	0.1
U.P. (East)	13	3	1.0x	40	0.0	0.0
U.P. (West)	13	3	1.0x	40	0.0	0.0
West Bengal	13	3	1.0x	40	0.0	0.0
Assam	3	3	1.0x	10	0.0	0.0
Bihar	3	3	1.0x	10	0.0	0.0
Himachal Pradesh	3	3	1.0x	10	0.0	0.0
J&K	3	3	1.0x	10	0.0	0.0
North East	3	3	1.0x	10	0.0	0.0
Orissa	3	3	1.0x	10	0.0	0.0
Delhi	36	3	2.5x	267	0.3	0.3
Kolkata	13	3	1.3x	52	0.1	0.1
Mumbai	36	3	2.5x	267	0.2	0.2
Total	389			1869		



Valuations and risks

- ▶ UW (V) and retain our TP of INR270
- Our valuations don't factor in Zain numbers; however our scenario analysis suggests a downside of cINR21 per share
- Ability to monetise tower assets will allow Bharti to deleverage balance sheet

Valuation and risks

We believe markets are factoring in the full impact of tariff cuts. Our FY11e EPS numbers for Bharti are 17% below consensus. We believe that after the 3G spectrum auctions tariffs could hit a new low before they stabilise or improve as operators which lose out on 3G may attempt to maximise their 2G market share. The Zain acquisition is expected to be earnings dilutive (18% in FY11e and 9% in FY12e).

We retain our target price of INR270 on Bharti. We value the core business at INR215 per share on a mix of PE and DCF and the tower business at INR55 per share.

Our target price is 14.5x FY11e earnings (excluding Zain) and 18x including Zain. The stock is currently trading at 16.5x on FY11e earnings. We have not changed any estimates in this report.

For our DCF analysis of the core business, we assume cost of equity at 12% (cost of debt at 11% and target debt to-capital ratio of 15%). We assume WACC at 12% and the terminal growth rate at 1% and a beta of 1.

We value Bharti's tower business – Bharti Infratel and the 42% stake in the Indus Tower JV – at INR62 on DCF, assuming a sliding WACC of 12% and a terminal growth rate of 4%, which implies FY11e EV/tower of cINR3m.

Under our research model, for stocks with a volatility indicator, the Neutral band is 10ppt above and below our hurdle rate for Indian stocks of 10.5%, or 0.5-20.5% above the current share price. Our target price of INR270 implies a potential total return of -12.9%, which is below the Neutral band, thus, we maintain our Underweight (V) rating.

Figure 8a:	Computation of	fair value for th	e core business
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Core business	Assumptions	Value (INR)
PE methodology	We assume a 12-month forward PE of 9x	170
DCF methodology	WACC of 12%, terminal growth rate c1%	260
Fair value of core business	Providing equal weight age to both PE and DCF	215



(INR/share)	Assumptions	Value 215	
Core business	Providing equal weight age to both PE and DCF		
Tower business	DCF	55	
Target price		270	

Upside risks and catalysts for

- Ability to monetise tower business will allow Bharti to reduce debt assumed for Zain acquisition and bring forward earnings accretion from Zain acquisition.
- ▶ If MNP is very close to launch of 3G services, we would view it as positive for incumbents.
- From a sector perspective, the regulatory initiatives on consolidation may have got delayed; the regulatory regime will support auction of 2G spectrum and provide exit route for new entrants, in our view. We would view this as a re-rating catalyst.
- Faster than anticipated revenues from 3G services and possibility of Bharti being able
- ▶ To procure 3G spectrum at sensible pricing

UW (V) and retain our TP at INR270. Our numbers are not factoring in Zain but per our scenario analysis, inclusion of Zain will amount to an incremental downside of INR21.1 per share. We remain cautious on Bharti given the EPS dilution from the Zain deal (until FY13e) and uncertainty with 3G spectrum auctions.

Downside risks from Zain

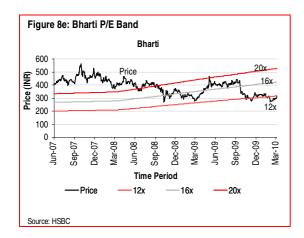
Given that there have not been regulatory approvals for the deal till now, we are not factoring Zain's valuations into our current stock price. However, per our pro forma numbers we value Zain's African business at cUSD7bn. This value for Zain factors the impact from Bharti's intervention in Zain's business, which includes market share gains and increased capex spend. Our DCF provides a value of USD7.1bn, which is cUSD1.8bn lower than the equity value paid by Bharti to acquire Zain. This implies a downside of INR38per share.

Figure 8c: Estimating downside valuation from the Zain deal				
Items	USDbn			
Total value paid by Bharti (Market Value)	9.0			
Zain's value as per our base case DCF for Zain (Market value)	5.8			
Negative value created	3.2			
Negative impact per share (INR)	38			



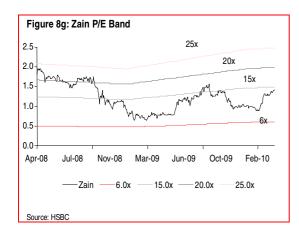
Figure 8d: Valuations of telecom companies

HSBC Estimates		Ticker CMP (INR) HSBC Ratir		g TP (INR) Upside		PE (x)		EV/EBITDA (x)		EV/Sub
Company	Ticker		HSBC Rating		Upside (%)	FY10e	FY11e	FY10e	FY11e	(USD)
Bharti	BHARTI.IN	311	UW(V)	270.0	-13%	12.8x	16.8x	7.6x	9.1x	147
RCOM	RCOM.IN	168	UW(V)	158.0	-6%	7.1x	10.5x	7.7x	7.5x	94
Idea Cellular	IDEA .IN	67	N(V)	63.0	-6%	24.9x	39.0x	7.4x	6.3x	85
MTNL	MTNL.IN	73	UW(V)	59.0	-29%	142.3x	61.8x	-4.9x	-3.1x	-9
TCOM	TCOM.IN	178	UW(V)	365.0	105%	-13.7x	-13.7x	8.1x	6.4x	NA
Tata Teleservices	TTLS IN	24	UW(V)	20.0	-16%	na	na	15.0x	16.5x	108

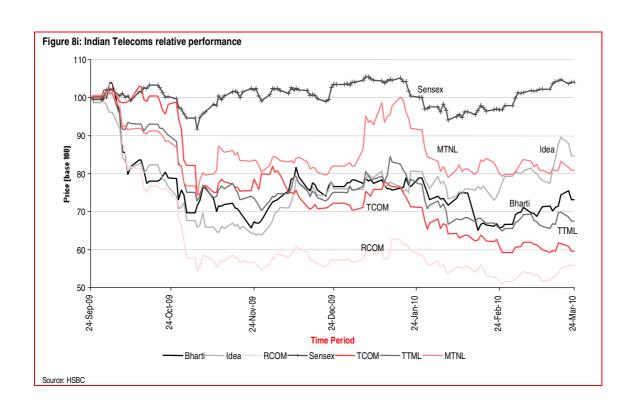














Notes





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HSBC believes an investor's decision to buy or sell a stock should depend on individual circumstances such as the investor's existing holdings and other considerations. Different securities firms use a variety of ratings terms as well as different rating systems to describe their recommendations. Investors should carefully read the definitions of the ratings used in each research report. In addition, because research reports contain more complete information concerning the analysts' views, investors should carefully read the entire research report and should not infer its contents from the rating. In any case, ratings should not be used or relied on in isolation as investment advice.

Rating definitions for long-term investment opportunities

Stock ratings

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.

Prior to 15 November 2004, HSBC's ratings system was based upon a two-stage recommendation structure: a combination of the analysts' view on the stock relative to its sector and the sector call relative to the market, together giving a view on the stock relative to the market. The sector call was the responsibility of the strategy team, set in co-operation with the analysts. For other companies, HSBC showed a recommendation relative to the market. The performance horizon was 6-12 months. The target price was the level the stock should have traded at if the market accepted the analysts' view of the stock.

Rating distribution for long-term investment opportunities

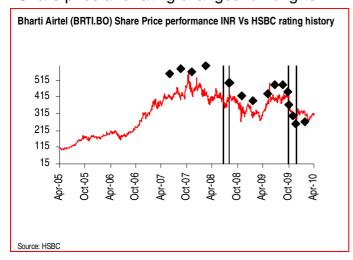
As of 01 April 2010, the distribution of all ratings published is as follows:

Overweight (Buy) 48% (12% of these provided with Investment Banking Services)

Neutral (Hold) 37% (11% of these provided with Investment Banking Services)

Underweight (Sell) 15% (9% of these provided with Investment Banking Services)

Share price and rating changes for long-term investment opportunities



Recommendation & price target history					
То	Date				
Overweight	20 June 2008				
Overweight (V)	30 July 2008				
Neutral (V)	30 September 2009				
Underweight (V)	24 November 2009				
Value	Date				
555.00	04 June 2007				
585.00	21 August 2007				
570.00	07 November 2007				
603.00	17 February 2008				
501.50	30 July 2008				
501.00	04 August 2008				
421.50	03 November 2008				
393.00	21 January 2009				
438.00	04 May 2009				
488.50	22 June 2009				
488.50	18 August 2009				
448.00	30 September 2009				
368.00	07 October 2009				
305.00	01 November 2009				
254.00	24 November 2009				
270.00	24 January 2010				
	To Overweight Overweight (V) Neutral (V) Underweight (V) Value 555.00 585.00 570.00 603.00 501.50 501.50 501.00 421.50 393.00 438.00 438.50 448.00 368.00 305.00 254.00				

Source: HSBC



HSBC & Analyst disclosures

Disclosure checklist						
Company	Ticker	Recent price	Price Date	Disclosure		
BHARTI AIRTEL ZAIN GROUP	BRTI.NS ZAIN.KW	312.55 1.36	31-Mar-2010 31-Mar-2010	5, 6, 7 7		

Source: HSBC

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