For Private Circulation only

FIRST GLOBAL

www.firstglobal.in

India Research





Sector: Technology (Software Services)

<u>What Happened Last Quarter</u>

Wipro Limited (WPRO.IN/WIPR.BO)

Moderate Outperform

(CMP: Rs.545.8, Mkt. Cap: Rs. 796.3 bn, May 11,'07) (CMP: US\$.16.24, Mkt. Cap: US \$ 23.7 bn, May 11,'07) (Relevant Index: S & P CNX Nifty: 4076.65, May 11,'07)

Technology Infrastructure Services to lead growth in coming years

Last report's recommendation: Moderate Outperform (MP: Rs.651.3, (Jan. 27,' 07) Relevant Index: Nifty: 4147.7, (Jan 27,' 07) Relative performance since last rating change (May 26, '06): Nifty: Up 27.0% WIPRO: Up 14.9%

May 11, 2007

Research Contact: Associate Director, Research: Hitesh Kuvelkar Mob. +91 9833 732633 Email: hiteshk@fglobal.com

Sales Offices: India Sales: Tel. No: +91-22-4001 2440

Email: indiasales@fglobal.com fgindiasales@bloomberg.net

US Sales: Tel. No: 1-212-2276611 Email: us@fglobal.com

Asia & Europe Sales: Tel.: 44-207-959 5300 Email: uk@fglobal.com

Research Note issued by First Global Securities Ltd., India FG Markets, Inc. is a member of NASD/SIPC and is regulated by the Securities & Exchange Commission (SEC), US First Global (UK) Ltd. is a member of London Stock Exchange and is regulated by Financial Services Authority (FSA), UK First Global Stockbroking is a member of Bombay Stock Exchange & National Stock Exchange, India

IMPORTANT DISCLOSURES CAN BE FOUND AT THE END OF THIS REPORT.

www.firstglobal.in

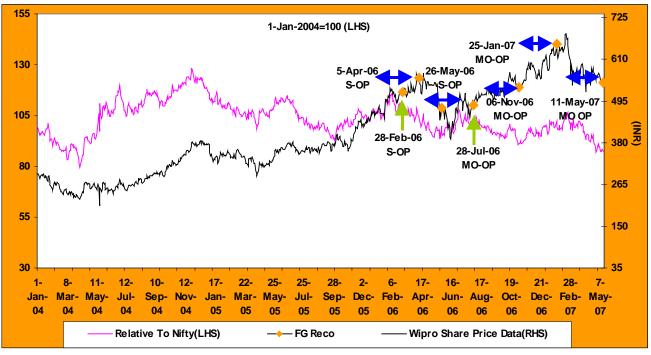
India Research

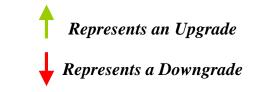
Price and Rating History Chart

Ratings Key

	P = Perry	RD = Rest at Darkings	OP = Outperform
	B = Buy	BD = Buy at Declines	
Positive Ratings	S-OP = Sector	M-OP = Market Outperform	MO-OP = Moderate
	Outperform		Outperform
Neutral Ratings	H = Hold	MP = Market Perform	SP = Sector Perform
	S = Sell	SS = Sell into Strength	UP = Underperform
Negative Ratings			
	A = Avoid	MO-UP = Moderate Underperform	S-UP = Sector Underperform
ST: Short Term		MT: Medium Term	LT: Long Term

Wipro Limited (WPRO.IN/WIPR.BO)





Represents Reiteration of Existing Rating

Details of First Global's Rating System given at the end of the report

India Research



Financial Snapshot^{*}

	K	ey Financials	3							
(YE March 31st) (Rs. mn)	2004	2005	2006	2007	2008E	2009E				
Total Revenue	58,839	81,920	106,541	150,970	194,051	241,704				
Revenue Growth (Y-o-Y)	36.0%	39.2%	30.1%	41.7%	28.5%	24.6%				
EBIDTA	13,143	20,830	25,886	35,116	45,138	55,592				
EBIDTA Growth (Y-o-Y)	20.0%	58.5%	24.3%	35.7%	28.5%	23.2%				
Net Profit	10,315	16,285	20,674	28,721	36,459	44,254				
Net Profit Growth (Y-o-Y)	21.8%	57.9%	26.9%	38.9%	26.9%	21.4%				
Shareholders Equity	37,550	52,814	66,052	95,960	123,228	158,217				
Number of Diluted shares(mn)	1,389	1,404	1,428	1,441	1,452	1,467				
Key Operating Ratios										
YE March 31st) 2004 2005 2006 2007 2008E 200										
EPS (Rs) (Basic)	7.4	11.7	14.7	20.1	25.4	30.5				
EPS Growth	21.8%	57.4%	25.6%	36.9%	26.2%	20.1%				
EPS (Rs) (Diluted)	7.43	11.60	14.48	19.92	25.10	30.16				
EPS Growth (Y-o-Y)	21.8%	56.2%	24.9%	37.6%	26.0%	20.1%				
CEPS (Rs.)	8.8	13.3	16.6	22.7	28.8	35.2				
EBIDTA (%)	22.3%	25.4%	24.3%	23.3%	23.3%	23.0%				
NPM (%)	17.5%	19.9%	19.4%	19.0%	18.8%	18.3%				
RoE (%)	28.5%	36.0%	34.8%	35.5%	33.3%	31.4%				
RoCE (%)	28.4%	35.9%	34.7%	34.8%	32.3%	30.7%				
Book Value per share (Rs.)	27.0	37.6	46.3	66.6	84.8	107.8				
Debt/Equity (x)	0.03	0.01	0.01	0.04	0.03	0.02				
Pay Out Ratio	65.4%	21.4%	34.5%	30.3%	28.2%	26.8%				
	Val	luation Ratio)5							
(YE March 31st)	2004	2005	2006	2007	2008E	2009E				
P/E (x)					21.7	18.1				
P/BV (x)					6.4	5.1				
P/CEPS (x)					18.9	15.5				
EV/EBIDTA (x)					16.9	13.7				
Market Cap./ Sales (x)					4.0	3.3				
EV/Sales(x)					3.9	3.2				
Dividend Yield					1.3%	1.5%				
	D	uPont Mode	l							
(YE March 31st)	2004	2005	2006	2007	2008E	2009E				
EBIDTA/Sales (%)	22%	25.4%	24.3%	23.3%	23.3%	23.0%				
Sales/Operating Assets (x)	2.5	3.2	3.2	3.4	3.1	3.1				
EBIDTA/Operating Assets (%)	56.7%	81.0%	78.4%	78.0%	72.8%	71.4%				
Operating Assets/ Net Assets(x)	0.6	0.6	0.6	0.5	0.5	0.5				
Net Earnings/ EBIDTA (%)	78%	78%	80%	82%	81%	80%				
Net Assets/ Equity (x)	1.0	1.0	1.0	1.0	1.0	1.0				
Return on Equity (%)	28.5%	36.0%	34.8%	35.5%	33.3%	31.4%				

www.firstglobal.in

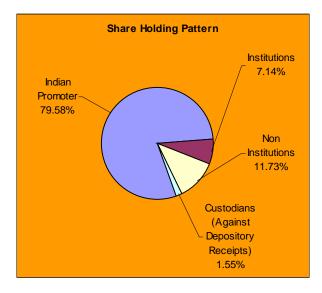
India Research



Common Sized Profit & Loss Account											
(YE March 31st)	2004	2005	2006	2007	2008E	2009E					
Total Revenues	100%	100%	100%	100%	100%	100%					
Cost of Sales & Services	63.5%	63.5%	64.4%	65.4%	65.4%	65.5%					
Gross Profit	36.5%	36.5%	35.6%	34.6%	34.6%	34.5%					
Selling & Marketing Expenses	9.1%	6.7%	6.5%	6.2%	6.2%	6.3%					
General & Administration Expenses	5.1%	4.3%	4.9%	5.1%	5.1%	5.3%					
EBITDA	22.3%	25.4%	24.3%	23.3%	23.3%	23.0%					
Depreciation and Amortization	3.3%	3.0%	2.9%	2.6%	2.8%	3.0%					
Interest Expenses	0.1%	0.1%	0.0%	0.1%	0.1%	0.1%					
Other Income	1%	1%	1%	1%	1%	1%					
РВТ	20.4%	23.1%	22.3%	21.9%	21.9%	21.3%					
Tax	2.7%	3.3%	3.2%	3.0%	3.3%	3.2%					
РАТ	17.5%	19.9%	19.4%	19.0%	18.8%	18.3%					

* Numbers presented are in Indian GAAP.

Key Statistics

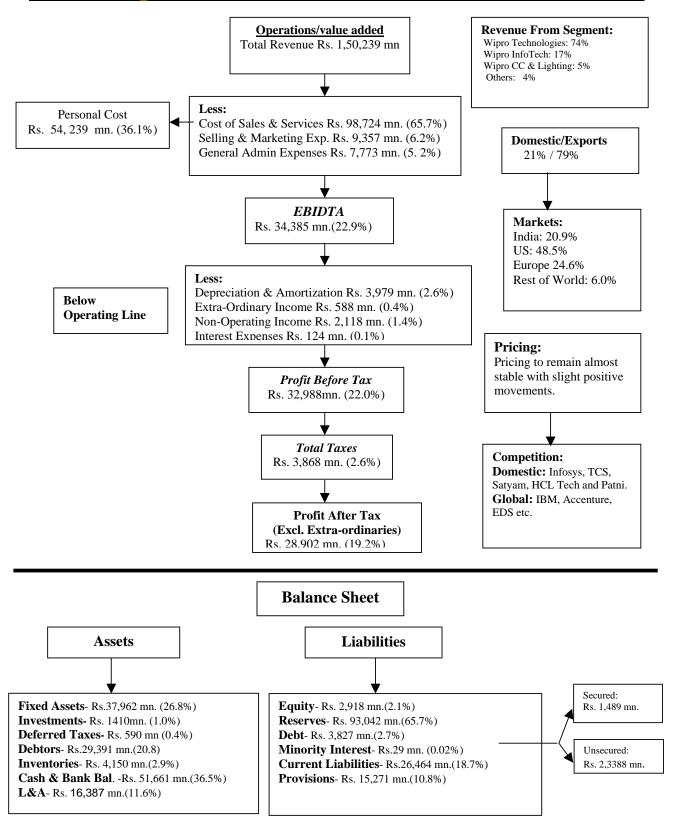


Industry:	Technology
52 Week Hi:Lo:	Rs.691/381.3
CMP:	Rs. 545.8
Avg Daily Vol (20 days):	1.31 mn
Avg Daily Val (20 days):	Rs.740.44 mn
Performance over 5	2 weeks:
Wipro:	up 0.17%
Nifty:	up 10.15%

www.firstglobal.in

India Research

Wipro's Business in Pictures...FY07



India Research



What Happened Last Quarter...

Wipro Limited's (WPRO.IN/WIPR.BO) Q4 FY07 results were more or less in line with expectations. Revenues in the quarter came in at Rs.43,546 mn, up 8.9% sequentially and 40.5% Y-o-Y (as against our estimate of Rs.42,150 mn). The diluted EPS came in at Rs. 5.45, marking a growth of 3.30% (excluding the extraordinary tax reversal benefits) as against our estimates of Rs.5.51. The company's sequential topline growth in Q4 FY07 was driven by a sequential growth of 6%, 11%, 7.6% and 38.6% in Wipro Technologies, Wipro Infotech, Wipro Consumer Care & Lighting and 'Other" (comprising of the hydraulics business) respectively. The sequential growth in Global IT services was driven by an organic growth of 5.6% (IT Services up 5% sequentially and BPO up 11.8% sequentially), while there was a significant growth of 14.5% sequentially from acquisitions. The revenue growth in IT Services was driven by a volume growth of 5.4% and an increase of 1.3% in realization.

The EBIDTA margin declined by 40 bps sequentially and 154 bps Y-o-Y to 22.4%, primarily due to higher Selling and Marketing Costs (up 23.9% sequentially and 48.8% Y-o-Y) and General and Administration Expenses (up 21.5% sequentially and 77.2% Y-o-Y). The salary hikes had an adverse impact of 60 bps on the margin of Wipro Technology, offset mostly by improved profitability in acquisitions and BPO. In Q4 FY07, the OPM of acquisitions and BPO improved by 967 bps and 120 bps respectively.

In Q4 FY07, Wipro Technology's topline growth was driven by Package Implementation (up 13.6% sequentially), Technology Infrastructure (up 11.7% sequentially) and BPO (up 11.8% sequentially). Among the verticals, Telecom Service Providers (TSPs), Manufacturing, Energy & Utilities and Retail grew sequentially at 9.1%, 11%, 12.9% and 11% respectively. The company added total of 44 new clients in Q4 FY07 taking total client count to 620. Although the attrition rates in the IT services (16.9%) continued to be high compared peers Infosys (13.7%) and TCS (11.3%).

Management has given the Q1 FY08 revenue guidance for Wipro Technologies to be \$711 mn. implying the Q-o-Q growth of 2.9%. We expect the company to report revenue and diluted EPS of Rs. 44.47 bn and Rs.6.0 and Rs.194.01 bn and Rs. 25.10 for Q1FY08 and FY08 respectively. We reiterate our rating of Moderate Outperform on Wipro.

									EV/EI	BIDTA					
Company	Year	P/E	(x)	P/S	(x)	P/BV (x)	EV/SA	LES (x)	(:	x)	EBIDTA	ROE (%)	RoCE (%)	Annual	Annual
Name	End										Margin (%)			EPS	Sales
														Growth (%)	Growth (%)
		FY08E	FY09E	FY08E	FY09E	FY07	FY08E	FY09E	FY08E	FY09E	FY08E	FY08E	FY08E	(09/08)	(09/08)
Infosys	Mar	23.8	19.8	6.3	5.1	9.7	5.8	4.6	18.5	15.2	31.1%	34.4%	34.4%	20.1%	24.5%
Wipro	Mar	21.7	18.1	4.0	3.3	8.2	3.9	3.2	16.9	13.7	23.3%	33.3%	32.3%	20.1%	24.6%
Satyam	Mar	17.3	14.8	3.7	3.0	5.3	3.2	2.6	13.7	11.3	23.3%	26.8%	26.5%	19.8%	22.9%
TCS	Mar	22.4	17.5	4.9	3.8	13.7	4.9	3.8	18.0	14.2	27.1%	46.8%	43.8%	27.9%	27.8%
HCT Tech	June	15.4	12.7	2.8	2.3	5.0	2.5	1.9	10.8	8.4	22.6%	29.3%	29.2%	20.9%	23.5%
iGate	Mar	14.8	11.5	1.1	1.0	3.8	1.0	0.7	7.4	4.7	13.6%	21.1%	17.2%	29.2%	20.0%

Comparative Valuation

* Source: FG Estimates.

www.firstglobal.in

India Research



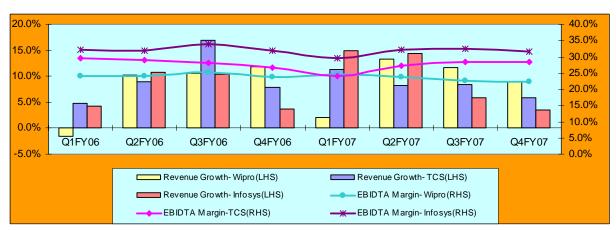
Key Quarterly Highlights

			%		
			Change		% Change
(YE March 31) (Rs. Mn)	Q4FY07	Q3FY07	Q-0-Q	Q4FY06	Y-o-Y
Total Revenue	43,546	40,001	8.9%	30,993	40.5%
Cost of Goods Sold	28,505	26,584	7.2%	20,291	40.5%
Selling & Marketing Expenses	2,802	2,262	23.9%	1,883	48.8%
General & Administration Expenses	2,496	2,053	21.5%	1,408	77.2%
Total Cost	33,804	30,900	9.4%	23,582	43.3%
EBIDTA	9,742	9,102	7.0%	7,411	31.5%
Less: Depreciation	1,091	1,011	8.0%	845	29.2%
EBIT	8,651	8,091	6.9%	6,566	31.7%
Non-Operating Income (Including of Extra ordinary)	645	550	17.2%	548	17.6%
РВТ	9,256	8,593	7.7%	7,107	30.2%
Less: Total Tax	1,446	1,031	40.2%	983	47.0%
Profit after Tax before minority interest	7,810	7,561	3.3%	6,124	27.5%
Minority Interest	2	4		0	
Share in Associates	49	89	-45.4%	55	
Profit After Tax	7,861	7,654	2.7%	6,179	27.2%
Earnings Per Share (In Rs.)					
Diluted	5.45	5.28	3.30%	4.29	27.02%
Weighted average Shares Outstanding (mn)(Adj.)	1,441	1,450		1,439	
EBIDTA Margin (%)	22.4%	22.8%		23.9%	
EBIT (%)	19.9%	20.2%		21.2%	
PBT Margin (%)	21.3%	21.5%		22.9%	
NPM (%)	18.1%	19.1%		19.9%	
Effective Tax Rate (%)	15.6%	12.0%		13.8%	

* Numbers are excluding tax rates.

India Research

Rising costs pull down EBIDTA margin



Sequential Revenue growth and EBIDTA Margin - A Comparison

The EBIDTA margin declined by 40 bps sequentially and 154 bps Y-o-Y to 22.4%, primarily due to higher Selling and Marketing Costs (up 23.9% sequentially and 48.8% Y-o-Y) and General and Administration Expenses (up 21.5% sequentially and 77.2% Y-o-Y). The salary hikes had an adverse impact of 60 bps on the margin of Wipro Technology, offset mostly by improved profitability in acquisitions and BPO. In Q4 FY07, the OPM of acquisitions and BPO improved by 967 bps and 120 bps respectively. However, historically, Wipro's EBIDTA margin has been lower than that of Infosys and TCS. While Infosys and TCS posted an EBIDTA margin of 31.7% and 28.3% respectively, Wipro's margin came in at 22.4% in the quarter.

Strong growth in Technology Infrastructure Services & Package Implementation

	Q3FY07	Q4FY07
Technology Infrastructure Services	20.7%	11.7%
Testing service	7.8%	7.8%
Package Implementation	13.8%	13.6%
Consulting	19.6%	7.8%
ВРО	7.5%	11.7%
ADM	6.0%	5.4%
Total	8.8%	7.8%

Sequential	growth	across	Services
Sequentitat	Sionin	<i>aci</i> 055	Ser reces

* \$ Terms

India Research

www.firstglobal.in



Technology Infrastructure Services (TIS) (up 11.7% sequentially) and BPO (up 11.7% sequentially) helped Wipro post a robust growth in Q4 FY07. Consulting grew by 7.8% sequentially, while the

We believe that TIS will spearhead the growth for Wipro in the coming years, as the service line is expected to witness significant traction, going forward traditional ADM (up 5.4% sequentially) continued to be a laggard. We believe that TIS will spearhead the growth for Wipro in the coming years, as the service line is expected to witness significant traction, going forward.

Enterprise Business leads the topline growth

Sequential Growin act	oss verill	ะนเร	
	Q2FY07	Q3FY07	Q4FY07
Embedded Systems & Product Engineering	8.1%	4.0%	3.5%
Telecom Service Providers	6.1%	4.1%	9.1%
Technology Business	7.7%	4.0%	4.6%
Financial Services	10.2%	9.4%	8.4%
Retail	26.1%	8.9%	10.7%
Energy & Utilities	-4.0%	33.4%	12.9%
Manufacturing	6.9%	7.7%	11.0%
TMTS	12.1%	7.1%	3.7%
Corporate/Others	9.2%	5.5%	10.9%
Enterprise Business	10.1%	11.6%	8.9%

Sequential Growth across Verticals

Among the verticals, Enterprise Business grew by 8.9% sequentially and Technology Business grew by 4.6% in Q4 FY07. In Enterprise Business, Energy & Utilities (up 12.9% sequentially),

Manufacturing (up 11.0% sequentially) and Retail (up 10.7% sequentially) witnessed robust growth. In the Technology Business, Telecom Services Providers (TSPs) witnessed significant traction (up 9.1% sequentially), although Product Engineering (up 3.5% sequentially) was comparatively a laggard. Going forward, given the growth potential in the Product Engineering segment, Telecom domain and Financial Services, these verticals, along with the other emerging verticals, such as Retail, and Energy & Utilities, will continue to dominate Wipro's vertical portfolio.

Going forward, given the growth potential in the Product Engineering segment, Telecom domain and Financial Services, these verticals, along with the other emerging verticals, such as Retail, and Energy & Utilities, will continue to dominate Wipro's vertical portfolio



Key Segment Highlights

- Wipro Technologies
 - In Q4 FY07, Global IT Services and Products accounted for 70% of the total revenues and 87% of the PBIT.
 - Technology Business and Enterprise Business contributed 33% and 67% respectively to the top line of Global IT services. The BPO business contributed 8.3% to the company's topline.
 - The company added a total of 44 new clients, thus taking its active client headcount to 620.
 - With a net addition of 1041 employees to IT Services and 601 employees to BPO, Wipro's total employee strength reached 67,818.

D Wipro Infotech: India & Asia-Pac IT Services and Products

- Wipro Infotech accounted for 18% of the total revenues and 9% of the PBIT in Q4 FY07.
- Wipro Infotech recorded revenues of Rs.7.84 bn, marking a growth of 38% Y-o-Y. The EBIT margin for the quarter was 9.3%. The Services business contributed 31.4% of the total revenues in the quarter.

U Wipro Consumer Care and Lighting

• In Q4 FY07, Wipro Consumer Care and Lighting business recorded revenues of Rs.2.03 bn and an EBIT of Rs.246 mn, contributing 5% to the total revenues and 3% to the overall EBIT.



Earnings Model – Wipro Limited Consolidated

Rs. Million (YE 31st March)	FY06	Q1	Q2	Q3	Q4	FY07	Q1E	Q2E	Q3E	Q4E	FY08E	FY09E
Total Revenue	106,541	31,616	35,807	40,001	43,546	150,970	44,470	46,794	49,736	53,051	194,051	241,704
Cost of Revenue	68,574	20,336	23,299	26,584	28,505	98,724	28,661	30,533	33,074	34,642	126,911	158,316
Gross Profit	37,967	11,280	12,509	13,417	15,040	52,246	15,809	16,261	16,661	18,409	67,140	83,388
Selling & Marketing Expenses	6,904	2,077	2,216	2,262	2,802	9,357	2,921	2,896	2,813	3,414	12,043	15,106
General & Administration Expenses	5,177	1,445	1,779	2,053	2,496	7,773	2,032	2,325	2,561	3,041	9,959	12,689
Total Cost	80,655	23,857	27,293	30,900	33,804	115,854	33,615	35,753	38,448	41,097	148,913	186,112
EBIDTA	25,886	7,758	8,514	9,102	9,742	35,116	10,856	11,041	11,288	11,954	45,138	55,592
Less: Depreciation	3,096	895	983	1,011	1,091	3,979	1,353	1,353	1,353	1,353	5,410	7,333
EBIT	22,790	6,864	7,531	8,091	8,651	31,137	9,503	9,688	9,935	10,601	39,727	48,259
Non-Operating Income(incl of Extra ordinary)	1,023.7	318.3	462.6	550.0	644.5	1,975.3	725	725	725	725	2,901.1	3,442.7
РВТ	23,778	7,179	7,960	8,593	9,256	32,988	10,180	10,365	10,612	11,279	42,437	51,510
Less: Total Tax	3,391	1,041	1,050	1,031	1,446	4,568	1,527	1,555	1,592	1,692	6,366	7,727
Profit after Tax before minority interest	20,387	6,139	6,910	7,561	7,810	28,420	8,653	8,811	9,021	9,587	36,071	43,784
Minority Interest	1	0	0	4	2	-6	2	2	2	2	-8	-9
Share in Associates	288	65	92	89	49	295	91	93	95	101	379	461
Profit After Tax	20,674	6,204	7,002	7,654	7,861	28,721	8,746	8,905	9,117	9,690	36,459	44,254
Earnings Per Share (In Rs.)												
Diluted	14.5	4.3	4.8	5.3	5.5	19.9	6.0	6.1	6.3	6.7	25.1	30.2
Weighted average Shares Outstanding (mn)	1,427.9	1,441.2	1,445.6	1,449.8	1,441.5	1,441.5	1,447.7	1,450.8	1,454.0	1,457.0	1,452.4	1,467.4
Gross Margin	35.6%	35.7%	34.9%	33.5%	34.5%	34.6%	35.6%	34.8%	33.5%	34.7%	34.6%	34.5%
EBIDTA Margin	24.3%	24.5%	23.8%	22.8%	22.4%	23.3%	24.4%	23.6%	22.7%	22.5%	23.3%	23.0%
EBIT Margin	21.4%	21.7%	21.0%	20.2%	19.9%	20.6%	21.4%	20.7%	20.0%	20.0%	20.5%	20.0%
PBT Margin	22.3%	22.7%	22.2%	21.5%	21.3%	21.9%	22.9%	22.2%	21.3%	21.3%	21.9%	21.3%
NPM	19.4%	19.6%	19.6%	19.1%	18.1%	19.0%	19.7%	19.0%	18.3%	18.3%	18.8%	18.3%
Effective Tax Rate	14.3%	14.5%	13.2%	12.0%	15.6%	13.8%	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%



IMPORTANT DISCLOSURES

Price Target

Price targets (if any) are derived from a subjective and/or quantitative analysis of financial and nonfinancial data of the concerned company using a combination of P/E, P/Sales, earnings growth, discounted cash flow (DCF) and its stock price history.

The risks that may impede achievement of the price target/investment thesis are -

- Change in the economic climate / legislation against Indian offshore development in the countries where the company provides its services
- **>** Billing Rate pressure from clients
- Fluctuation on US\$-Rupee exchange rate
- Salary and wage inflation & high employee attrition
- > Availability of tax holidays and incentives from Government of India



Rating system of First Global

Our rating system consists of three categories of ratings: Positive, Neutral and Negative. Within each of these categories, the rating may be absolute or relative. When assigning an absolute rating, the price target, if any, and the time period for the achievement of this price target, are given in the report. Similarly when assigning a relative rating, it will be with respect to certain market/sector index and for a certain period of time, both of which are specified in the report.

Rating in this report is relative to: S&P CNX Nifty

Positive Ratings

(i) Buy(B) – This rating means that we expect the stock price to move up and achieve our specified price target, if any, over the specified time period.

(ii) Buy at Declines (BD) – This rating means that we expect the stock to provide a better (lower) entry price and then move up and achieve our specified price target, if any, over the specified time period.

(ii) Outperform (OP) – This is a relative rating, which means that we expect the stock price to outperform the specified market/sector index over the specified time period.

Neutral Ratings

(i) Hold (H) – This rating means that we expect no substantial move in the stock price over the specified time period.

(ii) Marketperform (MP) – This is a relative rating, which means that we expect the stock price to perform in line with the performance of the specified market/sector index over the specified time period.

Negative Ratings

(i) Sell (S) – This rating means that we expect the stock price to go down and achieve our specified price target, if any, over the specified time period.

(ii) Sell into Strength (SS) – This rating means that we expect the stock to provide a better (higher) exit price in the short term, by going up. Thereafter, we expect it to move down and achieve our specified price target, if any, over the specified time period.

(iii) Underperform (UP) – This is a relative rating, which means that we expect the stock price to underperform the specified market/sector index over the specified time period.

(iv) Avoid (A) – This rating means that the valuation concerns and/or the risks and uncertainties related to the stock are such that we do not recommend considering the stock for investment purposes.

<u>FIRST GLOBAL</u> India Research

www.firstglobal.in



FIRST GLOBAL

Nirmal, 6th Floor, Backbay Reclamation, Nariman Point, Mumbai - 400 021, India.

Dealing Desk (India): Tel.: +91-22-400 12 400 email: fgindiasales@bloomberg.net

FG Markets, Inc.

90 John Street, Suite 703, New York, NY 10038

Dealing Desk (US): Tel. No: +1-212-227 6611 email: us@fglobal.com

FIRST GLOBAL (UK) Ltd.

The Cobalt Building, 19-20, Noel Street, London W1F 8GW, United Kingdom

Dealing Desk (UK & Europe): Tel. No: +44-207-959 5300 email: uk@fglobal.com

The information and opinions in this report were prepared by First Global. Information contained herein is based on data obtained from recognized statistical services, issuer reports or communications, or other sources, believed to be reliable. However, such information has not been verified by us, and we do not make any representations as to its accuracy or completeness. Any statements nonfactual in nature constitute only current opinions, which are subject to change. First Global does not undertake to advise you of changes in its opinion or information. First Global and others associated with it may make markets or specialize in, have positions in and effect transactions in securities of companies mentioned and may also perform or seek to perform investment banking services for those companies.

Whilst all reasonable care has been taken to ensure the facts stated and the opinions given are fair, neither First Global (UK) Limited nor FG Markets, Inc. nor any of their affiliates shall be in any way responsible for its contents, nor do they accept any liability for any loss or damage (including without limitation loss of profit) which may arise directly or indirectly from use of or reliance on such information. First Global (or one of its affiliates or subsidiaries) or their officers, directors, analysts, employees, agents, independent contractors, or consultants may have positions in securities or commodities referred to herein and may, as principal or agent, buy and sell such securities or commodities. An employee, analyst, officer, agent, independent contractor, a director, or a consultant of First Global, its affiliates, or its subsidiaries may serve as a director for companies mentioned in this report.

First Global and its affiliates may, to the extent permitted under applicable law, have acted upon or used the information prior to or immediately following its publication, provided that we could not reasonably expect any such action to have a material effect on the price. This memorandum is based on information available to the public. No representation is made that it is accurate or complete. This memorandum is not an offer to buy or sell or a solicitation of an offer to buy or sell the securities mentioned.

The investments discussed or recommended in this report may not be suitable for all investors. Investors must make their own investment decisions based on their specific investment objectives and financial position and using such independent advisors as they believe necessary. Where an investment is denominated in a currency other than the investor's currency, changes in rates of exchange may have an adverse effect on the value, price of, or income derived from the investment. There may be instances when fundamental, technical, and quantitative opinions may not be in concert.

Past performance is not necessarily a guide to future performance. Income from investments may fluctuate. The price or value of the investments to which this report relates, either directly or indirectly, may fall or rise against the interest of investors. There are risks inherent in international investments, which may make such investments unsuitable for certain clients. These include, for example, economic, political, currency exchange rate fluctuations, and limited availability of information on international securities.

The value of investments and the income from them may vary and you may realize less than the sum invested. Part of the capital invested may be used to pay that income. In the case of higher volatility investments, these may be subject to sudden and large falls in value and you may realize a large loss equal to the amount invested. Some investments are not readily realizable and investors may have difficulty in selling or realizing the investment or obtaining reliable information on the value or risks associated with the investment. Where a security is denominated in a currency other than sterling (for UK investors) or dollar (for US investors), changes in exchange rates may have an adverse effect on the value of the security and the income thereon. The tax treatment of some of the investments mentioned above may change with future legislation. The investment or investment service may not be suitable for all recipients of this publication and any doubts regarding this should be addressed to your broker. While First Global has prepared this report, First Global (UK) Ltd. and FG Markets, Inc. is distributing the report in the UK & US and accept responsibility for its contents. Any person receiving this report and wishing to effect transactions in any security discussed herein should do so only with a representative of First Global (UK ltd. or FG Markets, Inc.

First Global (UK) Limited is regulated by FSA and is a Member firm of the London Stock Exchange.

FG Markets, Inc. is regulated by SEC and is a member of National Association of Security Dealers (NASD) and Securities Investor Protection Corporation (SIPC). FG Markets, Inc., its affiliates, and its subsidiaries make no representation that the companies which issue securities which are the subject of their research reports are in compliance with certain informational reporting requirements imposed by the Securities Exchange Act of 1934. Sales of securities covered by this report may be made only in those jurisdictions where the security is qualified for sale. Additional information on recommended securities is available on request.

This report may not be resold or redistributed without the prior written consent of First Global.