

Information Technology Sector

14 March 2016

Downside Risks Open Up - It Is That Time Of The Cycle!

We are turning more negative on the IT sector from the cautious view we took in April 2015 ([Structural And Cyclical Speed-breakers Ahead](#)) and project a market capitalisation weighted downside of 11.9% till March 2017. We reinstate ratings and estimates on our coverage universe after putting them under review on 8 January 2016. We now rate all stocks as Sell (downside of >5% from CMP). The reasons for turning more negative are: (1) While we worried about a maturing US economic cycle in April 2015, we now believe the probability of below-trend growth in the US over the next 12-24 months is high. This, in our view, will have a deleterious impact on S&P 500 companies' (Global 2000 corporations broadly) sales growth, a key driver of Indian IT sector's revenue growth. With Europe and Japan flirting with recession and China in a slowdown, US has been the only economy that has been holding up. (2) We believe volume growth, pricing and margins are all likely to disappoint amid intense competition because of convergence of capabilities and strategies among Tier-1 Indian players. Indian rupee/US dollar level will be the only support to earnings. (3) We see revenue cannibalisation from automation (something we highlighted as a structural risk in our April 2015 report) to accelerate as the entire industry is in a challenger-defender paradigm and some players have already factored in aggressive assumptions on gains from it and therefore have to deliver unless they want to witness material margin downside. (4) We do not believe 'Digital' business is material enough to offset the pressures one expects in the traditional business. Besides, we believe spending on 'Digital' business will soften as budgets contract and also as pressure from digital disrupters weakens on PEVC (private equity/venture capital) funding turning adverse. (5) We see significant P/E multiple compression in the sector (as seen in past down cycles). From a positioning standpoint, we believe both foreign institutional investors or FIIs and domestic institutional investors or DIIs have double the weight in the sector currently (though they are underweight their benchmarks) than what they had in December 2007, which makes the sector vulnerable.

Consensus implicitly assumes 2.0%-2.5% US GDP growth to sustain: While consensus reset USD revenue downwards through FY16, as we anticipated, it still factors in USD revenue growth rebounding to low-mid teen level for Tier-1 players over FY16E-FY18E. This view implicitly assumes that US will continue to grow at 2.0%-2.5% over 2015-17. Based on our base case view (explicit) on US GDP growth (1%-2% in 2016 and 0%-1% in 2017), we expect Tier-1 players to grow 5%-8.5% over FY16E-FY18E in USD revenue terms (with the growth markedly slowing down 2.9-4.9% in FY18). Further, should US slip into even a mild recession, we believe downside risks to these expectations are material. Besides, this could be the first time we witness a structural change in the business model (because of automation) intersect a cyclical downturn and the implications are difficult to forecast precisely.

There is absolute downside, but relative portfolio call trickier: This is based on our experience over the past 12 months. While we got the absolute directional call of the sector right, it outperformed Indian banks (the other big competing sector), which witnessed material earnings and valuation damage because of asset quality pressure. We believe the weakness of the sector will be visible only with a lag, while damage to Indian banks is front and central currently. The relative call is made more difficult as the reasons behind our turning more negative on IT sector could have negative implications for Indian banking sector too, which could witness a fresh wave of NPAs.

Valuation benchmark: We have used the target P/E multiple that we have assigned to Infosys/TCS - 14.4x - as a point of reference for target P/E multiple of other players in the sector. This target P/E is - 1SD below 10-year mean of Infosys, but is not the most pessimistic (10-year low was 10.2 in 2008-09). With revenue growth being the highest in the foreseeable future and RoICs among the best, we believe Infosys deserves to get back its bellwether status (to be shared with TCS though). We do not expect a materially divergent revenue performance among Tier-1 players over FY16-FY18E. Risks remain high with those that have unbalanced revenue mix and capability gaps (accounted for through lower target P/Es). We have used RoIC as an additional metric when assigning target P/E multiples.

View: Negative

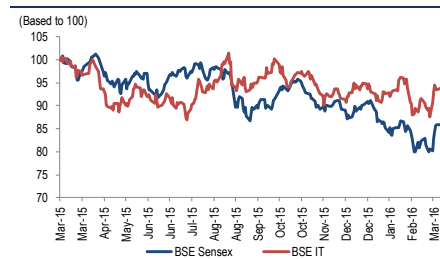
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One Year Indexed Performance



US\$ revenue growth	FY17E	FY18E
TCS	7.4	4.2
Infosys	8.8	3.8
Wipro	7.5	3.6
HCL Tech	9.3	4.0
Tech Mahindra	7.0	2.9
Persistent	12.3	4.9

	FY17E	FY18E	FY19E
INR/USD Estimates	68.1	70.4	71

(Rs)	Target Price		
	NBIE	Consensus	Diff. (%)
TCS	2,055	2,614	(21.4)
Infosys	1,002	1,316	(23.9)
Wipro	498	603	(17.4)
HCL Tech	737	982	(24.9)
Tech Mahindra	395	563	(29.8)
Persistent	522	740	(29.5)

Source: Bloomberg, NBIE Research

Company	Rating	Market cap		CMP (Rs)	Target Price	Up/Down (%)	EPS (Rs)			P/E (x)			RoIC (%)		
		Rsbm	US\$b				FY16E	FY17E	FY18E	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E
TCS	Sell	4,600	69.4	2,360	2,055	(13)	124.3	136.4	142.7	18.9	17.3	16.5	62.7	61.5	61.3
Infosys	Sell	2,634	39.2	1,141	1,002	(12)	58.8	65.2	69.6	19.4	17.5	16.4	58.8	57.1	55.4
Wipro	Sell	1,332	19.8	540	498	(8)	36.7	39.0	43.3	14.7	13.9	12.5	31.0	28.6	28.5
HCL Tech.	Sell	1,160	17.3	824	737	(11)	54.4	60.0	65.3	15.1	13.7	12.6	54.7	55.0	55.5
Tech Mahindra	Sell	443	6.6	459	395	(14)	30.7	33.9	36.6	14.9	13.5	12.6	33.6	35.5	35.6
Persistent	Sell	48	0.7	599	522	(13)	37.7	43.8	48.1	15.8	13.6	12.4	50.0	51.9	54.3

Source: Nirmal Bang Institutional Equities Research

[Acknowledge the contribution of Vivek Sarin, Associate, in data presentation connected with the report]

Please refer to the disclaimer towards the end of the document.

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We Have Turned More Negative

We are calling for a market capitalisation weighted decline of our coverage universe by 11.9% till March 2017. Catching turning points in economic cycles and company fundamentals is tough and chances of going wrong (especially on timing) are fairly high. However, this is an occupational hazard that we are ready to live with. We believe that we are at one such turning point over the next 12-24 months which could have a material impact on the returns of Indian IT companies. At such points, management commentary on business conditions does not have a great predictive power, in our view. We have witnessed this in two previous downturns (and upturns). An investor has to take objective view of the macro-economic environment (where are we in the economic cycle?) and take a call on where the sector growth and valuations are headed. We are sceptical about the 'aspirational' 2020 targets on both revenue and margins that some companies have put out and believe they probably have not factored in any adverse economic cycle in the 2015-20 period into their calculation.

We are reinitiating financial estimates and ratings for Indian IT companies under our coverage universe (TCS, Infosys, Wipro, HCL Technologies, Tech Mahindra and Persistent Systems) after putting them under review on 8 January 2016 (See Link [Our Ratings And Estimates Put Under Review](#)). Our new earnings estimates, ratings and target prices are given in Exhibit 1. Our old estimates are those prior to the start of December quarter 2015 results season.

Exhibit 1: Our Target prices on our coverage universe

Company	Rating	Market cap		CMP (Rs)	Target Price	Up/ Down(%)	EPS (Rs)			P/E (x)			RoIC (%)		
		Rsbm	US\$bn				FY16E	FY17E	FY18E	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E
TCS	Sell	4,600	69.4	2,360	2,055	(13)	124.3	136.4	142.7	18.9	17.3	16.5	62.7	61.5	61.3
Infosys	Sell	2,634	39.2	1,141	1,002	(12)	58.8	65.2	69.6	19.4	17.5	16.4	58.8	57.1	55.4
Wipro	Sell	1,332	19.8	540	498	(8)	36.7	39.0	43.3	14.7	13.9	12.5	31.0	28.6	28.5
HCL Tech.	Sell	1,160	17.3	824	737	(11)	54.4	60.0	65.3	15.1	13.7	12.6	54.7	55.0	55.5
Tech Mahindra	Sell	443	6.6	459	395	(14)	30.7	33.9	36.6	14.9	13.5	12.6	33.6	35.5	35.6
Persistent	Sell	48	0.7	599	522	(13)	37.7	43.8	48.1	15.8	13.6	12.4	50.0	51.9	54.3

Source: Nirmal Bang Institutional Equities Research

Incrementally, we have turned more negative on the sector compared to the cautious view we held in our initiating coverage report of April 2015 ([Structural And Cyclical Speed-breakers Ahead](#)). The detailed reasons for turning more negative on the sector are given in the next few sections.

Our new target prices as well as target P/E multiples for the coverage universe are given in Exhibit 2. The target prices are for March 2017 and are based on earnings for FY18E (March Y/E). This is an absolute return call.

Exhibit 2: Change in our Target prices, Target P/E's, and Recommendations

(Rs)	Target Price			Target P/E (x)			Recommendation	
	Current	Old	Diff. (%)	Current	Old	Diff. (%)	Current	Old
TCS	2,055	2,248	(8.6)	14.4	18.1	(20.4)	Sell	Sell
Infosys	1,002	1,194	(16.1)	14.4	18.1	(20.4)	Sell	Accumulate
Wipro	498	544	(8.5)	11.5	14.5	(20.7)	Sell	Sell
HCL Tech	737	989	(25.5)	11.5	16.3	(29.4)	Sell	Buy
Tech Mahindra	395	471	(16.1)	10.8	14.5	(25.5)	Sell	Sell
Persistent	522	544	(4.0)	10.8	13.1	(17.6)	Sell	Sell

Source: Nirmal Bang Institutional Equities Research

Expect 5%-8.5% USD revenue growth over FY16E-FY18E versus likely consensus number of 10-14%

We now believe that USD revenue growth for Tier-1 Indian IT services players over FY16E-FY18E will be 5%-8.5% vs 7.1%-11.9% that we had previously for five Tier-1 players. This is versus current consensus estimate, in our view, of 10%-14% over the same time frame. We have cut our USD revenue estimates for FY17 as well as FY18 (more so of the latter). We have also changed our INR/USD estimates in our models. We have rolled forward our target prices to numbers based on FY18 estimates. We have downgraded our P/E multiples as the sharp reduction in growth rate of the sector, in our view, will lead to a P/E de-rating very similar to situations witnessed in the past. We are expecting a marked slowdown in FY18 to 2.9%-4.9%. This is based on a scenario analysis that we have done for US economy (Exhibit 3).

Scenario analysis

With various macro-economic indicators pointing towards weakening of US economy over the past few months, and keeping in mind the fact that the cycle is in its maturity, we have built various scenarios that could play out over the next two years (2015-17). We have summarised this in Exhibit 3.

Exhibit 3: Scenario Analysis

	US GDP growth in 2016	US GDP growth in 2017	Tier – 1 company revenue growth in FY17	Tier – 1 company revenue growth in FY18	P/E multiples based on FY18	Probability
Base case	1-2%	0-1%	5-9%	3-5%	14.4x or below	60%
Optimistic case	2-2.5%	2-2.5%	7-9%	7-9%	18.1x or below	15%
Pessimistic	0-1%	-1-0%	2-5%	-2-0%	10x or below	25%

Source: Nirmal Bang Institutional Equities Research

We believe the current consensus view tilts towards the optimistic scenario wherein there is an implicit expectation that US real GDP growth would hold up at the current level of 2.0%-2.5% over the next couple of years. The key to this coming true would be if US consumer confidence/spending holds up. The worst-case scenario (25% probability) is when we believe US, after likely growing at 1%-2% in 2016, would flirt with a mild recession in 2017. We believe both in the base case and in the worst case the inflation levels are likely to be low in US, leading to a very low nominal GDP growth which could impact S&P 500 companies' sales growth. In our worst-case analysis, downside could be far more substantial from where the stock prices are currently.

Absolute call easier (we believe) versus relative call

The relative call is complicated by the outlook on Indian banking sector and likely actions of RBI and Indian government regarding it. Based on how we believe the US/global economic growth will pan out over 2016 and 2017 and the interplay of cyclical and structural factors on revenue growth, we believe the call on absolute direction of IT stocks seems slightly easier versus the portfolio call on how to deal with the sector relative to others in Indian equity market, especially with regard to domestic cyclical sectors. This is because the explicit view we have taken on US economy will have implications on global growth and, consequently, on prices of commodities, export demand and more importantly currencies. In this context, the key competing sector for funds from institutional investors – Indian financials – will get impacted adversely and there could be fresh wave of bad asset creation. A point to be borne in mind is that the Indian banking sector would be going into this potential slowdown in far worse shape than it did in the 2008-09 GFC.

From a stock market perspective, we believe the potential global growth slowdown will probably play out in phases. While current stock prices partly reflect likely onset, unless we have put the slowdown behind us we cannot be sure that there will be no further price damage to equities from specific sectors. Where earnings damage is visible early, investors will punish those sectors first. Financials - where damage is visible far earlier than in other sectors in the current slowdown - are probably taking the hit. For IT sector, we believe the USD revenue damage will come with a lag (6-12 months down the road).

Relatively, IT sector could hold up well in the near term, especially vis-a-vis financials. However, once the market begins to factor in much lower revenue growth in FY18E (consensus may move from low to mid-teen USD revenue growth number to possibly very low single-digit growth), we expect the stocks to start falling.

Exhibit 4: Difference between aggregate numbers of Tier-1 companies and consensus

(Rsbn)	Consensus			NBIE			Deviation (%) of NBIE vs Consensus		
	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E
Revenue	2,898	3,252	3,623	2,922	3,262	3,498	0.8	0.3	(3.5)
EBIT	663	752	838	667	731	771	0.6	(2.8)	(8.0)
PAT	570	636	714	575	629	672	1.0	(1.1)	(5.8)
EBIT margin (%)	22.9	23.1	23.1	22.8	22.4	22.1	(10bps)	(70bps)	(100bps)

Source: Bloomberg, Nirmal Bang Institutional Equities Research

Exhibit 5: Difference between our old and new estimates (old estimates are those prior to Dec Qtr 2015 results)

TCS Change in estimates	New			Old			Change (%)		
	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E
INR/USD	65.6	68.1	70.4	64.6	63.0	64.0	1.5	8.1	10.0
USD revenue	16,563	17,788	18,527	16,629	18,088	19,658	(0.4)	(1.7)	(5.8)
Revenue (Rsbn)	1,087	1,212	1,304	1,075	1,139	1,258	1.1	6.4	3.7
EBIT (Rsbn)	291	319	334	287	290	318	1.5	10.1	4.9
EBIT margin (%)	26.8	26.4	25.6	26.7	25.5	25.3	10bps	90bps	30bps
PAT (Rsbn)	244	267	280	239	243	267	2.1	9.9	4.7
EPS (Rs)	124.3	136.4	142.7	122.0	124.2	136.2	1.9	9.8	4.8

Infosys Change in estimates	New			Old			Change (%)		
	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E
INR/USD	65.6	68.1	70.4	65.2	63.0	64.0	0.6	8.1	10.0
USD revenue	9,517	10,350	10,741	9,365	10,242	11,101	1.6	1.1	(3.2)
Revenue (Rsbn)	625	705	756	611	645	710	2.3	9.3	6.5
EBIT (Rsbn)	155	172	181	152	157	185	2.1	9.8	(2.1)
EBIT margin (%)	24.8	24.4	24.0	24.9	24.4	26.0	(10bps)	0bps	(200bps)
PAT (Rsbn)	134	149	159	132	146	173	1.8	2.0	(8.1)
EPS (Rs)	58.8	65.2	69.6	57.8	63.9	75.7	1.7	2.0	(8.1)

Wipro Change in estimates	New			Old			Change		
	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E
INR/USD	65.9	68.1	70.4	64.7	63.0	64.0	1.9	8.1	10.0
USD revenue	7,348	7,897	8,180	7,400	7,953	8,483	(0.7)	(0.7)	(3.6)
Revenue (Rsbn)	515	567	605	511	531	573	0.8	6.7	5.5
EBIT (Rsbn)	98	103	112	100	102	116	(2.3)	0.9	(3.4)
EBIT margin (%)	19.0	18.2	18.5	19.7	19.1	20.2	(70bps)	(90bps)	(170bps)
PAT (Rsbn)	90	96	106	90	93	105	0.2	3.0	1.3
EPS (Rs)	36.6	38.9	43.2	36.7	37.6	42.7	(0.2)	3.5	1.2

HCL Technologies Change in estimates	New			Old			Change (%)		
	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E
INR/USD	66.6	68.6	70.9	64.8	63.0	64.0	2.7	8.9	10.7
USD revenue (mn)	6,451	7,053	7,336	6,439	7,134	7,712	0.2	(1.1)	(4.9)
Revenue (Rsmn)	429,143	483,862	519,765	416,592	449,473	493,590	3.0	7.7	5.3
EBIT (Rsmn)	87,011	96,071	101,773	89,131	99,874	109,563	(2.4)	(3.8)	(7.1)
EBIT margin (%)	20.3	19.9	19.6	21.4	22.2	22.2	(110bps)	(230bps)	(260bps)
PAT (Rsmn)	76,739	84,695	92,192	77,759	88,495	99,184	(1.3)	(4.3)	(7.0)
EPS (Rs)	54.4	60.0	65.3	55.0	62.6	70.2	(1.2)	(4.1)	(7.0)

Tech Mahindra Change in estimates	New			Old			Change (%)		
	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E
INR/USD	65.6	68.1	70.4	65.3	63.0	64.0	0.5	8.1	10.0
USD revenue	4,045	4,326	4,452	4,083	4,451	4,823	(0.9)	(2.8)	(7.7)
Revenue (Rsmn)	265,617	294,668	313,343	266,596	280,328	308,691	(0.4)	5.1	1.5
EBIT (Rsmn)	35,844	40,609	42,706	38,326	39,559	46,889	(6.5)	2.7	(8.9)
EBIT margin (%)	13.5	13.8	13.6	14.4	14.1	15.2	(90bps)	(30bps)	(160bps)
PAT (Rsmn)	29,724	32,786	35,355	31,216	31,443	37,725	(4.8)	4.3	(6.3)
EPS (Rs)	30.7	33.9	36.6	32.3	32.5	39.0	(4.8)	4.3	(6.2)

Persistent Systems	New			Old			Change (%)		
Change in estimates	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E
INR/USD	65.7	68.1	70.4	64.6	63.0	64.0	1.6	8.1	10.0
USD revenue (mn)	343	386	405	341	392	427	0.7	(1.6)	(5.2)
Revenue (Rsmn)	22,580	26,272	28,485	22,035	24,718	27,325	2.5	6.3	4.2
EBIT (Rsmn)	3,360	3,950	4,281	3,264	3,632	4,185	2.9	8.8	2.3
EBIT margin (%)	14.9	15.0	15.0	14.8	14.7	15.3	10bps	30bps	(30bps)
PAT (Rsmn)	3,018	3,507	3,848	2,963	3,323	3,812	1.9	5.5	1.0
EPS (Rs)	37.9	44.0	48.3	37.2	41.7	47.8	1.9	5.6	1.1

Source: Company, Nirmal Bang Institutional Equities Research

A cyclical slowdown likely in the US if not an outright recession in the 2015-2017 timeframe

We believe the IT sector is likely to be adversely impacted by a cyclical slowdown that can occur in US economy any time over 2015-17 which will impact USD revenue growth, margins and P/E multiples of Indian IT companies. Our target P/E multiples are based on a historical P/E analysis, especially during such periods of stress. We believe these multiples are appropriate for the growth environment that we are likely to witness over this time frame and the current positioning of institutional investors. We believe these are not excessively pessimistic and are generally 40%-145% higher than 10-year lows (see Exhibit 6). We believe we are probably erring on the side of optimism (if our view on US economy turns out right) with our target P/E multiples.

Exhibit 6: 12-month Forward PE analysis

(x)	Time period	Maximum	Minimum	Mean	Our target P/E (x)	% age difference between target P/E and minimum
TCS	FY06 - Present	26.8	6.5	18.2	14.4	121.5
Infosys	FY06 - Present	29.9	10.2	18.6	14.4	41.2
Wipro	FY06 - Present	28.0	5.8	15.3	11.5	98.3
HCL Tech	FY06 - Present	21.1	4.7	13.1	11.5	144.7
Tech Mahindra*	FY13 - Present	24.2	7.4	14.4	10.8	45.9
Persistent	FY11 - Present	25.1	6.6	12.2	10.8	63.6

Note: * Taken post Satyam merger

Source: Company, Bloomberg, Nirmal Bang Institutional Equities Research

It is going to be more of USD revenue and P/E reset story rather than INR EPS

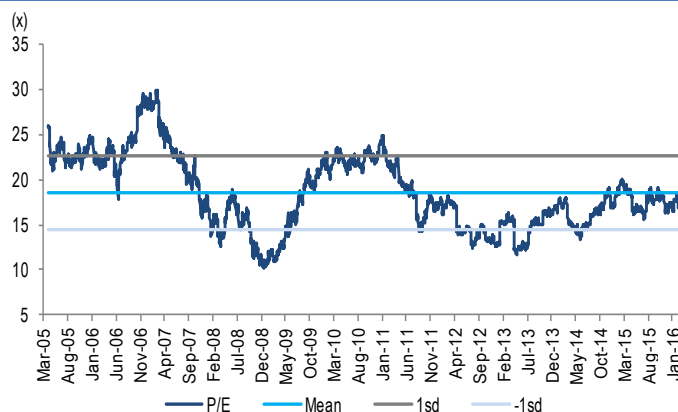
We believe the resets in the coming days are going to be more on USD revenue and P/E fronts. We believe the EPS (in INR terms) will broadly hold up (It will not go into negative growth territory, in our view) on the back of INR depreciation, very similar to what happened in 2008-09 time frame. While that was a far bigger adverse event than what we are anticipating and the revenue slowdown was marked, INR EPS held up. P/E multiples, however, contracted significantly despite institutional investors having a lesser holding in IT stocks at that time.

Exhibit 7: Forward P/E multiples of our coverage universe

TCS



Infosys

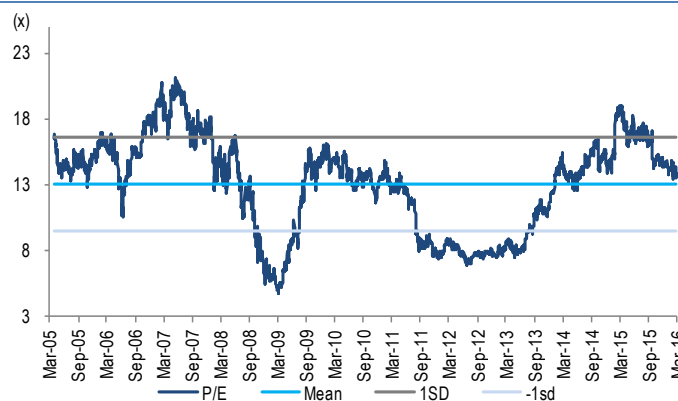


Source: Bloomberg, Nirmal Bang Institutional Equities Research

Wipro

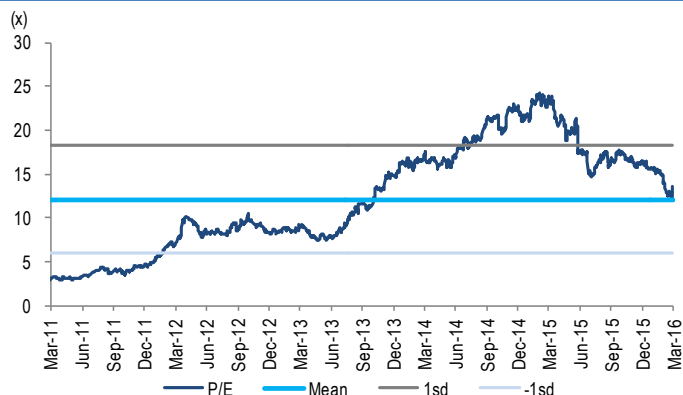


HCL Technologies



Source: Bloomberg, Nirmal Bang Institutional Equities Research

Tech Mahindra

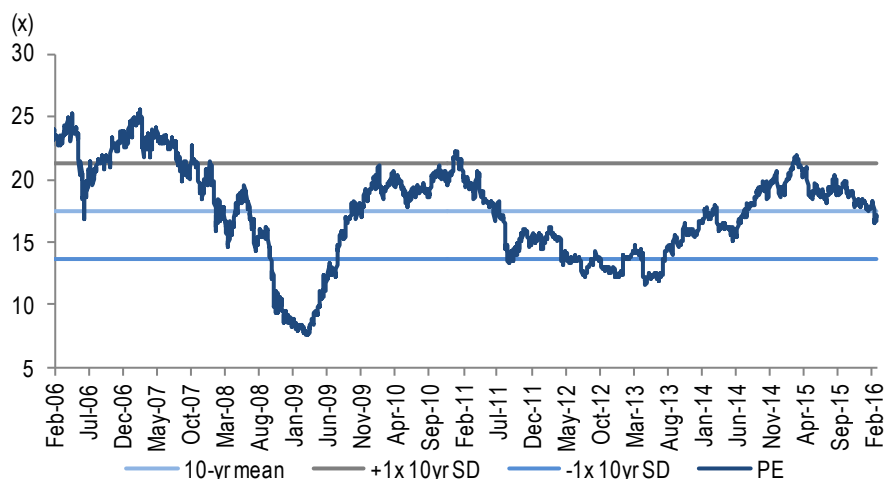


Persistent Systems



Source: Bloomberg, Nirmal Bang Institutional Equities Research

Exhibit 8: P/E of CNXIT over the years



Source: Bloomberg, Nirmal Bang Institutional Equities Research

Institutional positioning will also hurt, in our view

We see ownership being a problem for P/E multiples as well, as both FIIs and DIIs now have double the weight in the sector compared to what they had in December 2007. However, against MSCI index, FIIs seem to be underweight in IT sector. Similarly we believe the DIIs are also underweight the IT sector vis-à-vis any of the two key indices.

Exhibit 9: FII and DII positioning in various sectors (BSE200)

Industry (Dec -2015)	FII (%)	DII (%)
Basic materials	3.2	5.5
Consumer goods	14.3	18.4
Consumer services	2.1	0.8
Financials	31.5	21.8
Healthcare	9.3	5.5
Industrials	11.9	21.5
Oil & gas	6.7	11.1
Technology	14.3	9.5
Telecommunications	3.5	1.7
Utilities	3.3	4.2
Total	100.0	100.0

Industry (Dec -2007)	FII (%)	DII (%)
Basic materials	6.6	9.4
Consumer goods	5.5	11.7
Consumer services	1.1	1.1
Financials	30.2	20.9
Healthcare	4.2	3.4
Industrials	17.4	24.1
Oil & gas	15.0	14.6
Technology	6.8	3.4
Telecommunications	8.4	5.0
Utilities	4.8	6.3
Total	100.0	100.0

Source: Bloomberg, Ace Equity, Nirmal Bang Institutional Equities Research

Exhibit 10: Sectoral positioning in MSCI index as of Jan-2016

Sector	Jan-2016
IT	22.26
Financials	15.39
Healthcare	12.89
Consumer discretionary	11.26
Consumer staples	11.06
Energy	10.37
Industrials	5.62
Materials	5.58
Telecom	3.61
Utilities	1.96
Total	100

Source: MSCI

Where do we stand versus consensus

Exhibit 11 gives you the picture of where our estimates stand versus current Bloomberg consensus numbers. We believe these numbers have to be analysed keeping a few things in mind:

- The numbers are all in INR terms, therefore one does not know precisely what USD revenue and INR/USD estimates are of consensus at this point in time.
- In our assessment, our FY17 and FY18 estimates on USD revenue are below street consensus (more so for FY18). We are factoring in a USD revenue growth of 5%-8.5% for our coverage universe over FY16E-FY18E, while we believe the street is likely factoring in a growth of 10%-14% for many Tier-1 companies.
- The growth and P/E multiples that are being assigned by consensus to Tier-1 companies, implicitly assume US GDP growth to be in 2.0%-2.5% in 2016 as well as 2017.
- Our estimates on USD revenue growth and P/E multiples explicitly assume that there is going to be a US economic slowdown over 2015-17, although not factoring in a recession currently.
- Despite building in a more pessimistic outlook on USD revenue growth, we believe that we have taken a more pessimistic stance on INR/USD level (which is going to elevate EPS) and EBIT margin (decrease EPS).

Exhibit 11: Consensus estimates versus NBIE estimates – Revenue, EBIT and PAT

TCS (Rsbn)	Consensus			NBIE			Difference (%)		
	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E
Revenue	1,082	1,213	1,355	1,087	1,212	1,304	0.5	(0.1)	(3.8)
EBIT	289	323	357	291	319	334	0.9	(1.0)	(6.4)
PAT adj.	240	265	297	244	267	280	1.7	0.8	(6.0)
EPS adj. (Rs)	122.3	134.8	151.2	124.3	136.4	142.7	1.6	1.2	(5.6)
EBIT margin (%)	26.7	26.6	26.3	26.8	26.4	25.6	10bps	(20bps)	(70bps)

Infosys (Rsbn)	Consensus			NBIE			Difference (%)		
	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E
Revenue	622	708	795	625	705	756	0.5	(0.5)	(5.0)
EBIT	155	180	204	155	172	181	(0.2)	(4.5)	(11.3)
PAT adj.	134	153	172	134	149	159	0.3	(2.4)	(7.4)
EPS adj. (Rs)	58.6	66.7	75.0	58.8	65.2	69.6	0.3	(2.3)	(7.3)
EBIT margin (%)	25.0	25.5	25.7	24.8	24.4	24.0	(20bps)	(110bps)	(170bps)

Wipro (Rsbn)	Consensus			NBIE			Difference (%)		
	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E
Revenue (Rsbn)	510	560	614	515	567	605	1.0	1.1	(1.5)
EBIT (Rsbn)	97	107	117	98	103	112	0.8	(3.7)	(4.5)
PAT (Rsbn)	90	98	109	90	96	106	(0.0)	(2.6)	(2.0)
EPS (Rs)	36.6	39.9	43.9	36.6	38.9	43.2	(0.0)	(2.4)	(1.6)
EBIT margin (%)	19.0	19.1	19.1	19.0	18.2	18.5	0bps	(90bps)	(60bps)

HCL Technologies (Rsmn)	Consensus			NBIE			Difference (%)		
	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E
Revenue (Rsmn)	419,163	475,268	530,941	429,143	483,862	519,765	2.4	1.8	(2.1)
EBIT (Rsmn)	86,160	99,962	111,403	87,011	96,071	101,773	1.0	(3.9)	(8.6)
PAT (Rsmn)	75,949	86,449	96,563	76,739	84,695	92,192	1.0	(2.0)	(4.5)
EPS (Rs)	53.8	61.2	68.4	54.4	60.0	65.3	1.0	(2.0)	(4.5)
EBIT margin (%)	20.6	21.0	21.0	20.3	19.9	19.6	(30bps)	(110bps)	(140bps)

Tech Mahindra (Rsmn)	Consensus			NBIE			Dev (%)		
	FY16	FY17	FY18	FY16	FY17	FY18	FY16	FY17	FY18
Revenue (Rsmn)	264,669	294,988	328,045	265,617	294,668	313,343	0.4	(0.1)	(4.5)
EBIT (Rsmn)	36,000	42,441	48,556	35,844	40,609	42,706	(0.4)	(4.3)	(12.0)
PAT (Rsmn)	29,463	33,731	39,191	29,724	32,786	35,355	0.9	(2.8)	(9.8)
EPS (Rs)	32.0	36.6	42.4	30.7	33.9	36.6	(3.9)	(7.4)	(13.8)
EBIT margin (%)	13.6	14.4	14.8	13.5	13.8	13.6	(10bps)	(60bps)	(120bps)

Persistent Systems (Rsmn)	Consensus			NBIE			Deviation (%)		
	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E	FY16E	FY17E	FY18E
Revenue (Rsmn)	22,483	26,344	30,144	22,580	26,272	28,485	0.4	(0.3)	(5.5)
EBIT (Rsmn)	3,302	4,123	4,842	3,360	3,950	4,281	1.8	(4.2)	(11.6)
PAT (Rsmn)	2,982	3,508	4,091	3,018	3,507	3,848	1.2	(0.0)	(5.9)
EPS (Rs)	37.4	44.1	51.3	37.9	44.0	48.3	1.4	(0.1)	(5.7)
EBIT margin (%)	14.7	15.7	16.1	14.9	15.0	15.0	20bps	(70bps)	(110bps)

Source: Bloomberg, Nirmal Bang Institutional Equities Research

Why We Have Turned More Negative

What have we been saying so far

In IT sector report of April 2015, we expected the sector to grow at a 8%-10% rate over FY15E-FY18E in USD terms, at least 200bps-400bps below consensus estimate (of that time) with a downside risk. The sector's growth, we stated, will be under pressure from: (1) Low IT spending because of tepid sales growth across enterprises in developed countries, and (2) Value/volume compression within the legacy business because of increased automation and intense competition on convergence of capabilities/strategies among Tier-1 Indian players. We said 'Digital' will not move the growth needle materially. We had initiated coverage on five companies at that time with Accumulate rating on HCL Technologies and Infosys and Sell rating on TCS, Wipro and Tech Mahindra. Except for Infosys, which surprised on revenue front, most other stocks disappointed on USD revenue front or/and on EBIT margin front. The latter happened despite the benefit of a much more depreciated INR than we had initially started with. Most target prices we set were either met or exceeded, although we believe that HCL Tech's performance was a bit disappointing, especially on margin front. We also stated that CNXIT P/E (1+SD above 3-year mean) was rich in the given context. We also highlighted that there was a risk of P/E multiple compression from a maturing US economic cycle.

Our call has broadly played out on an absolute basis, but not on a relative one

Since initiating coverage on the sector in April 2015, our call has broadly played out. The universe we were covering is down 8.9% on market capitalisation-weighted basis as of 11th March 2016 against our expectation of a 7.4% decline. Our broad calls on where stock prices would be have also played out (see Exhibit 12). There were some surprises in between - Infosys has surprised us on the upside on revenue front, while HCL Technologies has surprised us on the downside on revenue as well as margin front. However, the relative performance of the sector has been better than what we had anticipated because of severe underperformance of the banking sector. (See Exhibit 58)

Exhibit 12: Expectation versus performance

	CMP	IC TP	IC recommendation
TCS	2,360	2,314	Sell
Infosys*	1,141	1,074	Accumulate
Wipro	540	576	Sell
HCL Tech	824	1,013	Accumulate
Tech Mahindra	459	593	Sell

Note: * - Post 1:1 bonus issue; Source: Company, Nirmal Bang Institutional Equities Research

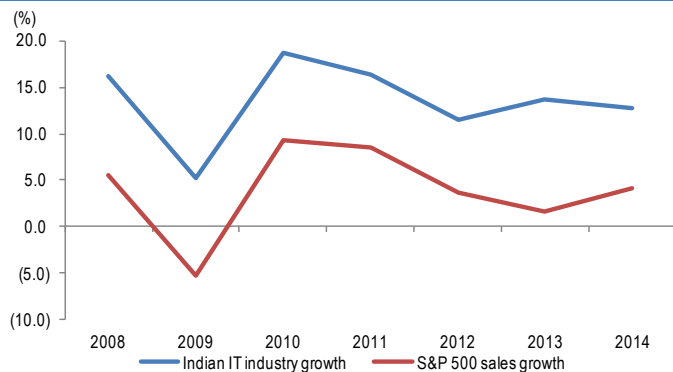
What are we saying now?

We believe the downside risk that we stated in our April 2015 report seems to have opened up, specifically with reference to the US economic cycle. Typically, US cycles last eight to nine years going by history of the past 40-45 years. If one takes 2008 to be the beginning of the last recession in US, based on a historical economic cycle analysis, a slowdown is due sometime in 2015 -17 timeframe, if not an outright recession. Many US macro-economic indicators have been peaking/turning down in recent months pointing towards this. What complicates matters however is, unlike in the past cycles - despite reasonably strong employment growth - inflation is not high and wage growth has not really picked up and therefore we have not witnessed any significant Fed rate hikes that are typical at this stage of the cycle. We are, therefore, in possibly a new territory. Part of this could be explained by the economic impact of fixed-asset slowdown in China which has pulled down industrial commodity prices and the strong US dollar. Both of these have likely kept inflation under control. It is quite possible that a recession (mild one) is on the cards, but we do not have data points to support such an event with certainty.

Sales growth of S&P 500 and Global 2000 companies are critical to industry growth

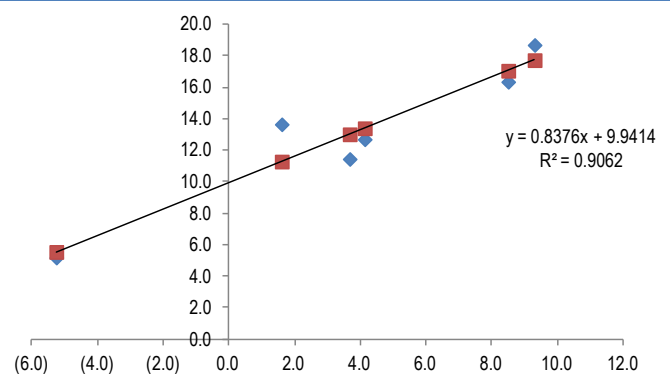
Our key cyclical worry point is the weakness likely to be witnessed in S&P 500 companies' sales growth which has a strong correlation with Indian IT sector's USD revenue growth (Exhibits 13 and 14). For 2015, for instance, based on S&P 500 companies' sales growth expectations at that time (in April 2015) we had predicted that the industry would, at best, grow by 9.8%. As we look back at 2015 now, S&P 500 companies' sales growth has come in weaker (decline of 2.1%) than initially anticipated (decline of 0.2%), driven by broad weakness across various sectors, with energy and materials sector being impacted the most. Based on the regression equation, the growth of the industry in USD terms should have been 8.1%. Industry body Nasscom's growth estimate for FY16 has pegged the growth at 10.3%. Our universe of coverage would likely deliver about 7.5% (aggregate growth) in FY16.

Exhibit 13: IT sector's growth and S&P 500 companies' sales growth seem closely linked



Note: S&P 500 sales growth for the calendar year and the Industry growth (as per Nasscom) for the fiscal year. For instance 2014 is FY15 for Indian Industry growth considerations; Source: Bloomberg, Nirmal Bang Institutional Equities Research

Exhibit 14: Linear regression analysis between industry growth (Y) and S&P 500 companies' sales growth (X)



Source: Bloomberg, Nirmal Bang Institutional Equities Research

The regression equation may be valid for 2016, but likely to fail in 2017

The regression equation between S&P 500 companies' sales growth and Indian industry's growth we believe, will broadly hold up in 2016. S&P 500 companies' sales growth estimate for 2016 has come off from 6.1% in April 2015 to a number of 1.5% in March 2016. If we plug that rate into the equation, we will come up with an estimate of 11% for 2016. We are broadly factoring in 7 to 9.3% growth for Tier-1 players in FY17. We believe structural factors like value compression from automation is something that is currently not captured in this equation, which could potentially pull down growth from the levels suggested by the equation.

We admit that 2017 could be completely new territory as we have witnessed in the past down cycles. No statistical analysis will be of help. However, what past cycles do tell is that there is a marked Indian IT industry slowdown whenever US economy veers off its trend growth and slows. Under such circumstances, a slowdown from 7.5% growth (FY16) to 4% growth (FY18), in our view, is not inconceivable (if one goes by past data of growth slowdowns in Exhibits 41 and 51).

Automation and Accenture will come into play as big spoilsports

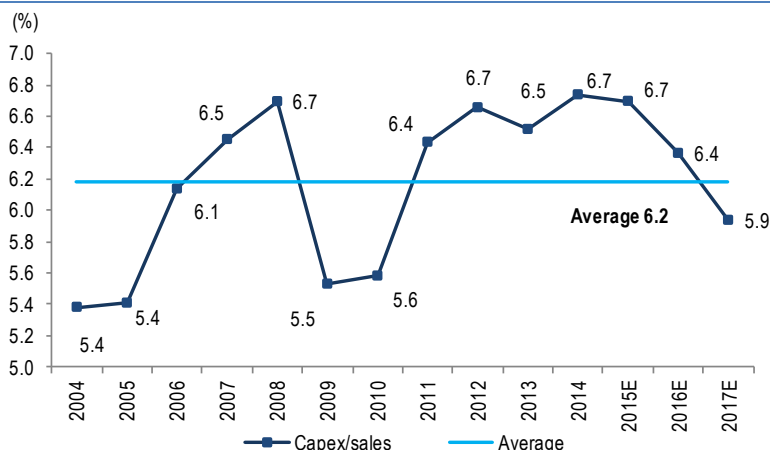
Besides cyclical factors, we believe that there is going to be a heavy overlay of structural headwinds, which, in our view, will likely to have a larger impact in 2015-17 compared to the past. We had highlighted automation as a structural headwind to Indian IT sector story with cost advantages of offshoring becoming less relevant in the future as more and more of the routine, repeatable, low intelligence tasks being done by pieces of software that are going to get more intelligent over time. This happens as advantages of doing work in the traditional offshore-on-site model have been squeezed out to the maximum extent possible (unless the offshore vendors are in a mood to drop their margins). The pressure to push automation, in our view, will not only come from clients wanting to reorient their budgets towards new spending, but also from what we see as convergence of capabilities and strategies among players jostling to gain market share. We believe Infosys and Wipro, under new leaderships, are trying to unsettle the current market share picture. While bidding for large projects, some vendors have factored in very aggressive assumptions on automation, which makes it imperative that they deliver unless they want margins to get hit in the medium term. We also believe that Accenture remains a structural competitive threat to Indian players as it has become the de facto largest player in volume on the offshore side and has beaten all Indian players at their own game.

Cyclical factors driving slower growth

S&P 500 revenue growth: After a very weak performance in 2015 a repeat seems likely in 2016

We believe what constitutes revenue for Indian IT sector can be classified as both capital and operating expenditure in the context of its customers. The trend among customers, based on commentary from various IT services companies, indicates the move to make spending more variable and outcome-based. It is becoming more opex-oriented. Intuitively, opex is closely linked to revenue and revenue growth. Also, as stated in our report in April 2015, it is not as if the capex number has been muted. The capex to sales ratio of S&P 500 companies continues to remain above average and it is only the lack of sales growth (Exhibit 19) which is probably constraining capex at this point in time.

Exhibit 15: S&P 500 Capex to sales ratio trending above mean



Source: Bloomberg, Nirmal Bang Institutional Equities Research

The relationship between profit growth of S&P 500 enterprises and Indian IT services spending growth has waned since the 2008 global financial crisis. Our study shows that there is a strong co-relation between S&P 500 companies' revenue growth and Indian industry's USD revenue growth (see Exhibits 13 and 14). Thus, industry growth came in at 10.3% in FY16 in USD terms (source: Nasscom). If we look at the narrower group of Tier-1 Indian players, the growth has been to the tune of only 7.5%, which seems more in line with our analysis. Probably, Nasscom's numbers capture growth of Cognizant (21.5% growth) and some fast-growing captives.

Exhibit 16: Movement of Consensus sell side estimates over a period of time

YoY Growth (%)	Best Sales 2015			Best Sales 2016E							Best Sales 2017E
	Dec-2015	Jul-2015	Apr-2015	Mar-2016	Feb-2016	Jan-2016	Dec-2015	Sep-2015	Aug-2015	Jul-2015	Mar-2016
S&P 500	(2.1)	(2.0)	(0.2)	1.5	1.9	3.6	3.7	5.5	5.6	6.1	6.1
Basic materials	(10.0)	(7.8)	(2.0)	(9.4)	(6.6)	(4.0)	(3.3)	(0.4)	4.3	5.0	5.9
Consumer goods	(3.3)	(2.3)	(0.1)	0.5	1.7	2.0	1.4	2.1	3.4	3.9	2.4
Consumer services	6.3	7.8	7.4	9.0	9.0	9.1	8.9	11.9	5.9	5.5	5.2
Financials	(2.5)	(3.9)	(2.8)	3.1	2.1	1.4	1.5	2.9	4.3	4.9	4.4
Healthcare	8.0	6.8	6.9	6.5	7.1	7.8	7.7	8.5	8.7	10.5	5.6
Industrials	(3.4)	(3.2)	0.8	(1.3)	(0.7)	1.2	1.4	2.7	3.6	4.0	3.3
Oil & gas	(27.4)	(27.4)	(21.9)	(18.5)	(14.8)	(3.3)	(2.2)	1.4	9.4	12.7	25.5
Technology	4.4	4.6	6.0	-	(1.1)	1.4	2.0	3.6	4.8	5.3	6.6
Telecommunications	8.2	3.6	2.9	7.2	7.2	6.8	6.4	6.6	7.7	2.7	1.6
Utilities	(0.6)	(0.4)	0.1	0.4	1.6	2.4	2.5	3.1	5.1	3.9	2.6

Source: Bloomberg, Nirmal Bang Institutional Equities Research

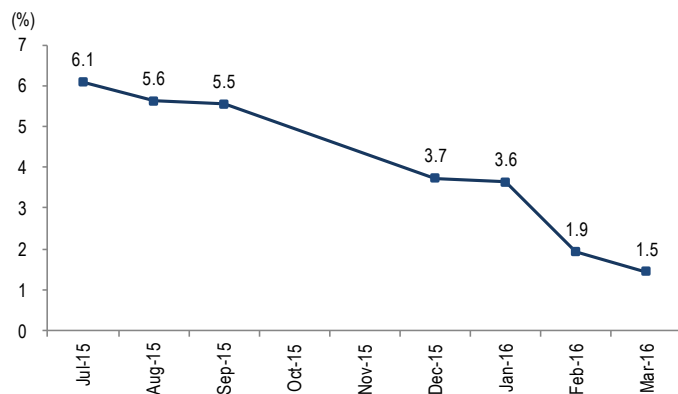
Exhibit 17: Contribution of various sectors to S&P500 revenues

Contribution of sectors (%)	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016E	2017E
Basic Materials	3.0	2.9	3.2	3.7	3.0	3.3	3.4	3.2	3.2	3.1	2.8	2.5	2.5
Consumer goods	11.6	10.8	10.3	10.1	10.8	10.9	11.1	11.1	11.2	11.1	11.0	10.9	10.5
Consumer services	20.4	20.5	20.8	21.0	22.8	21.9	21.7	22.1	22.4	22.9	24.9	26.8	26.5
Financials	17.1	18.3	18.0	13.8	16.0	15.3	14.0	14.2	13.8	13.6	13.5	13.8	13.5
Healthcare	6.5	6.9	6.9	6.9	7.9	8.5	8.2	8.5	8.9	9.2	10.2	10.7	10.6
Industrials	13.7	13.2	13.0	13.2	12.5	12.0	12.0	12.0	12.0	11.9	11.8	11.5	11.1
Oil & gas	14.8	14.2	14.4	17.0	12.9	14.1	15.1	14.1	13.6	12.7	9.4	7.6	8.9
Technology	7.1	7.2	7.1	7.8	7.7	8.1	8.7	9.2	9.0	9.5	10.1	10.0	10.0
Telecommunications	1.8	2.1	2.7	2.7	2.9	2.7	2.7	2.7	2.7	2.7	2.9	3.1	3.0
Utilities	4.2	3.8	3.7	3.8	3.5	3.4	3.2	3.0	3.1	3.2	3.3	3.3	3.2

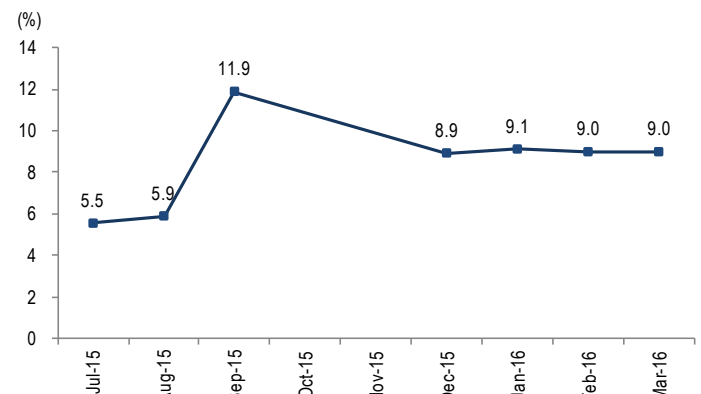
Source: Bloomberg, Nirmal Bang Institutional Equities Research

Exhibit 18: Various sectors of S&P 500 have been weakening in terms of revenue growth over the last many months

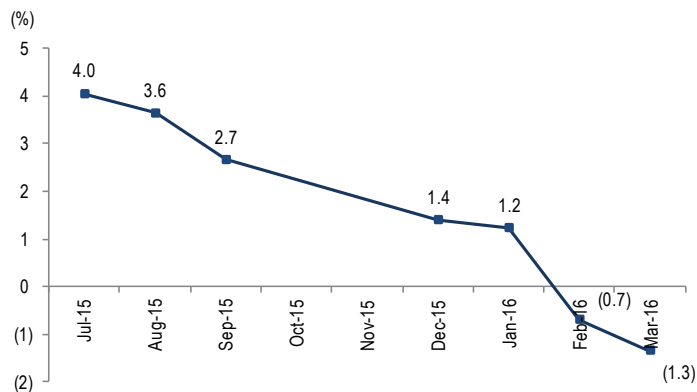
S&P 500



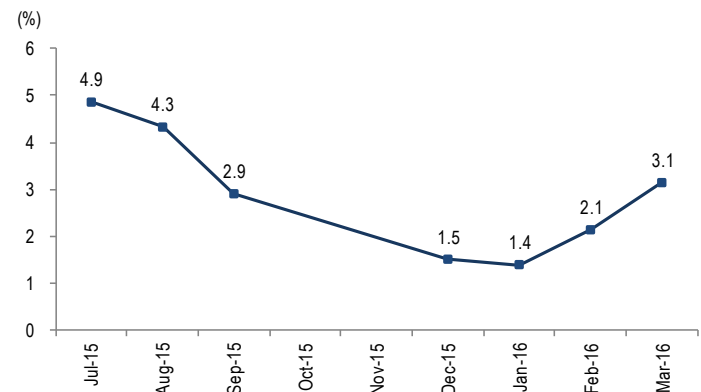
Consumer services



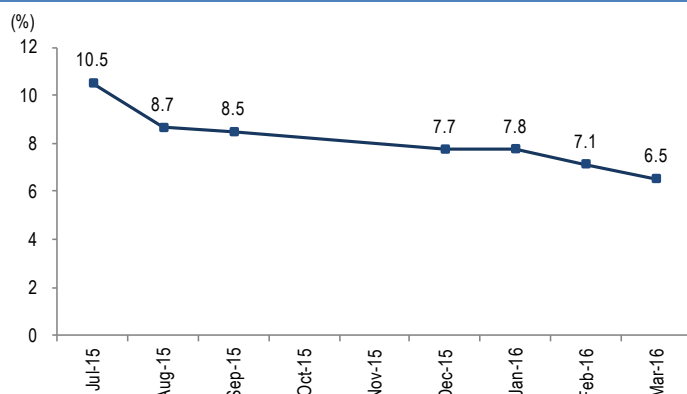
Industrials



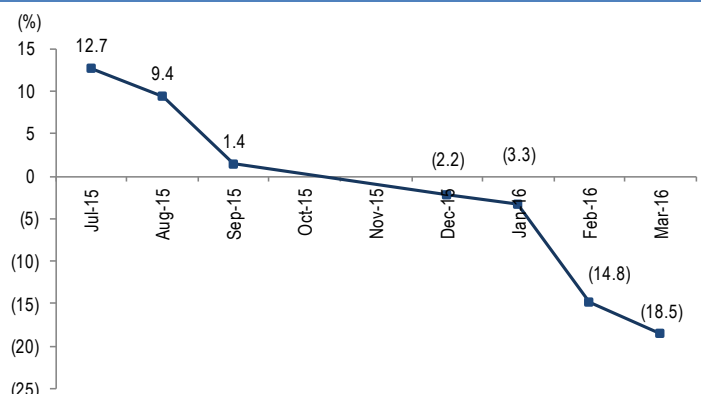
Financials



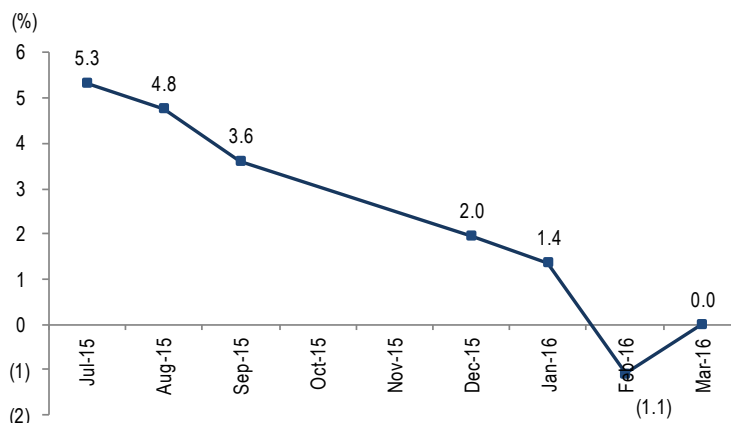
Healthcare



Oil & gas

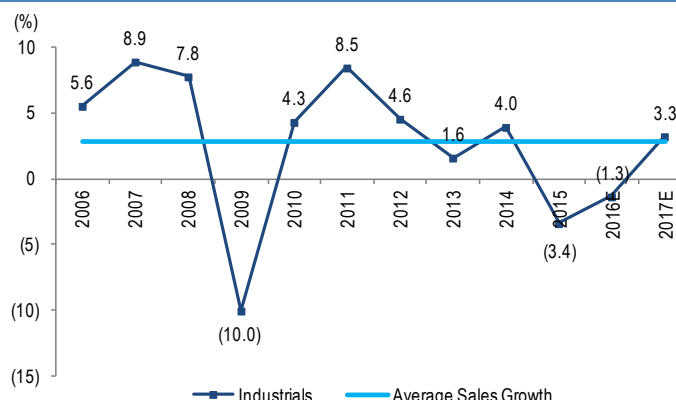
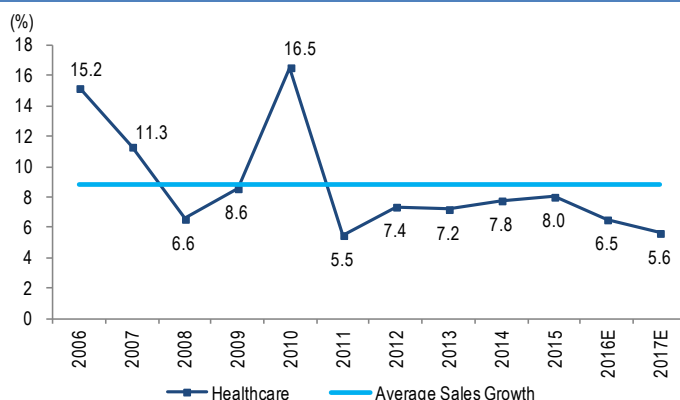
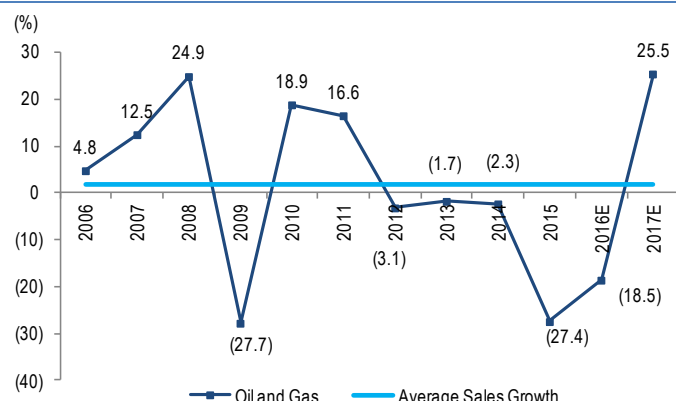
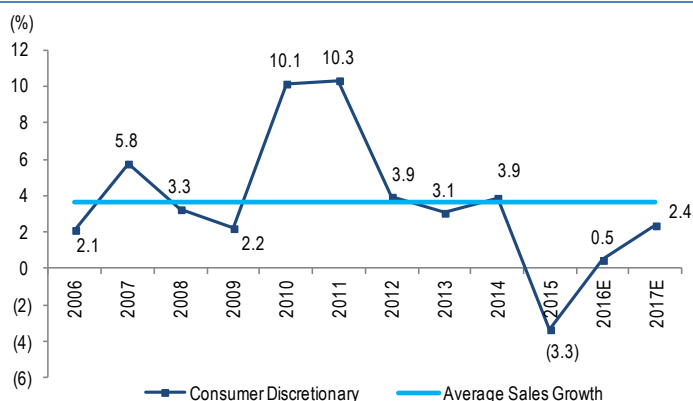
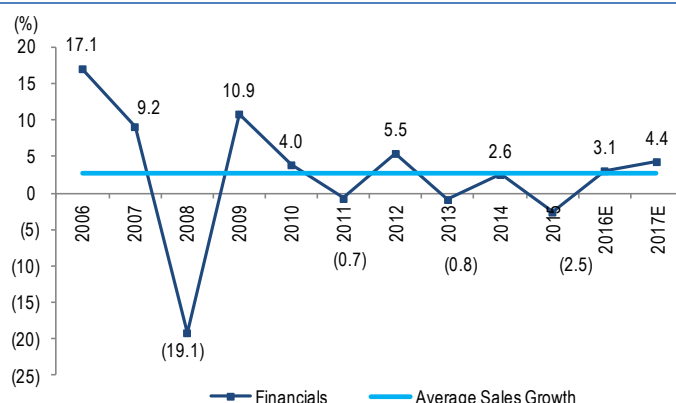
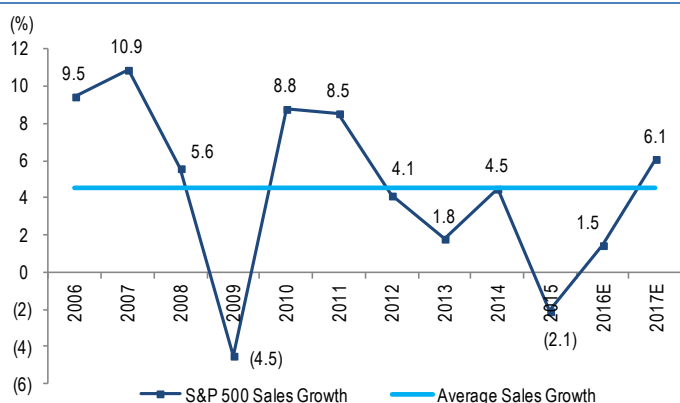


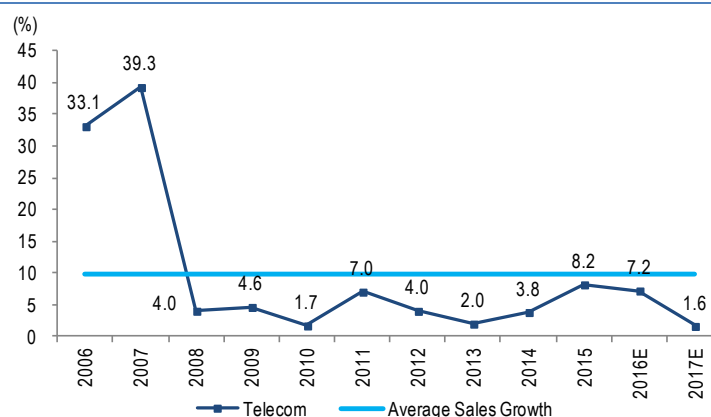
Technology



Source: Bloomberg, Nirmal Bang Institutional Equities Research

Exhibit 19: S&P 500 and its individual sector sales growth on an annual basis



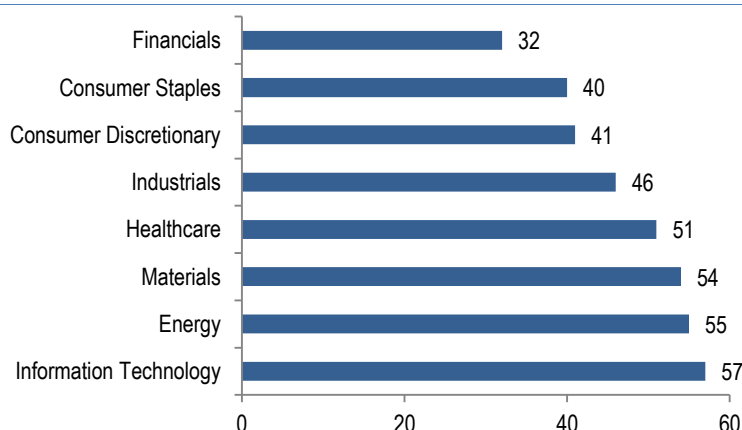


Source: Bloomberg, Nirmal Bang Institutional Equities Research

Non-US revenue weakness

With about 40% of sales for S&P 500 companies coming from non-US sources, the weak health of overseas economies like Europe, Japan and emerging markets exacerbated by USD's strength is what seems to have driven weaker growth in 2015. It is for the very first time since GFC that S&P 500 companies' sales growth dipped into negative territory. Emerging markets, as a whole, constitute about 15%-20% of S&P 500 companies' sales and the slowdown in China, Brazil, Russia and the significant currency depreciation across many emerging markets has probably hit the sales number.

Exhibit 20: Exposure to overseas sales by S&P 500 industry segment as a percentage of sales is fairly large



Source: Wall Street Journal (WSJ)

2016 numbers have been trending down too

We believe that some of the problems faced in 2015 are likely to continue hurting revenue growth of S&P 500 companies in 2016 also. Steady US economic growth has been a supportive factor till 2015. It is our view that this factor could possibly work against S&P 500 companies' revenue growth starting 2016 and peak in 2017. A look at analyst estimates (Exhibit 19) shows that growth is unlikely to pick up above the mean level in the foreseeable future in US and Europe (key markets addressed by the sector – constituting 80%-90% of the turnover of most companies). This should lead to slower growth in spending on IT. Individual Sectoral estimates have also been moving down over the last several months.

Macro-economic data from US shows incremental weakness

Various macro-economic indicators of US seem to be showing weakness/stress over the past few months (Exhibits 21 to 34). Some seem to be peaking. We particularly want to point to the flattening of the yield curve (Exhibit 32), the peaking of US jobless claims data (Exhibit 30), weakening of both manufacturing and non-manufacturing PMI data (Exhibits 21, 23), Services PMI (Exhibit 25), Industrial Production (Exhibit 22) and spreads on corporate bonds (Exhibit 31).

US Real GDP is growing at about 2%-2.5% currently while inflation is quite low. Europe has been flirting with a recession and its inflation too is very low. Two big geographies which constitute about 80-90% of Indian IT sector revenues are facing deflationary conditions.

The weak economies and the sharp corrections in industrial commodities (crude and metals) have also not helped the cause of both the US and European Financials sector. Elevated stress seems to be apparent from the CDS of some of the companies (see Exhibits 33 and 34).

Exhibit 21: US Composite PMI



Source: St. Louis Fed

Exhibit 22: US Industrial Production



Exhibit 23: US ISM Non Manufacturing PMI



Source: Trading Economics

Exhibit 24: US Retail Sales



Source: St. Louis Fed

Exhibit 25: US Services PMI



Source: Trading Economics

Exhibit 26: US Real GDP growth

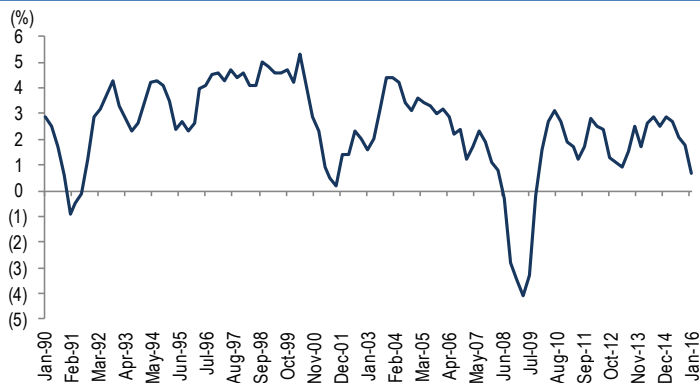
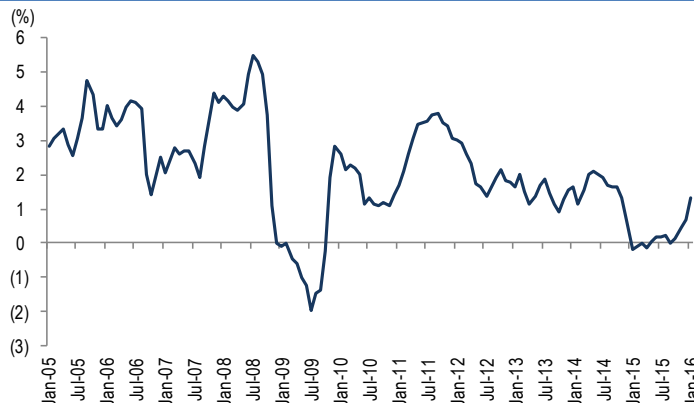


Exhibit 27: US CPI data



Source: Bloomberg, Nirmal Bang Institutional Equities Research

Exhibit 28: EU Real GDP growth

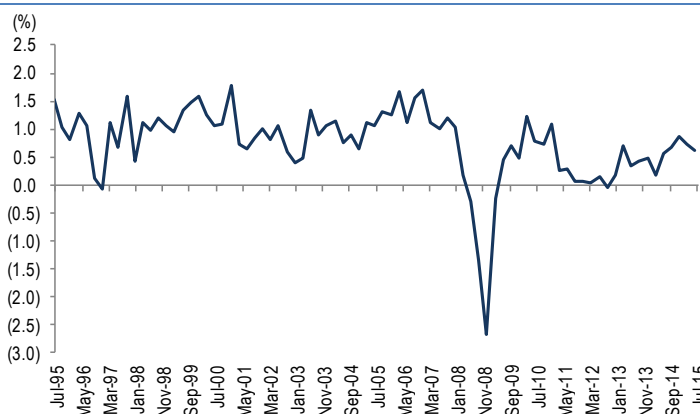
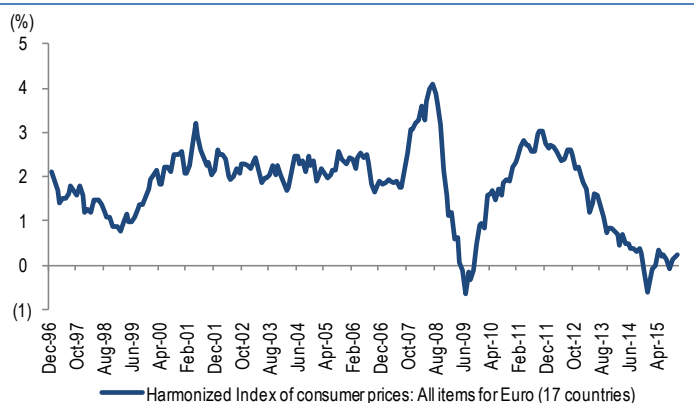


Exhibit 29: EU CPI data



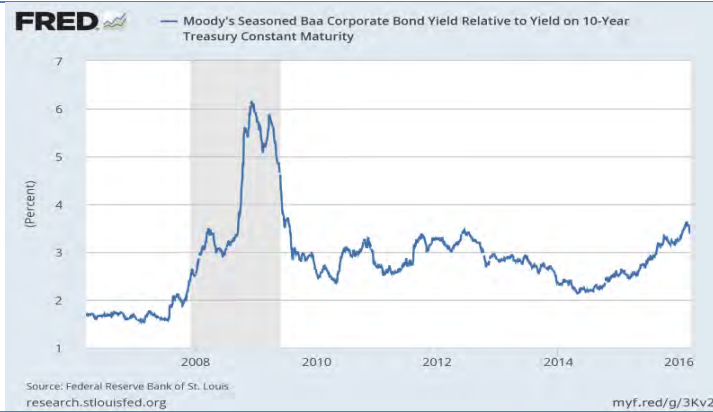
Source: Bloomberg, Nirmal Bang Institutional Equities Research

Exhibit 30: US initial Jobless claims



Source: Bloomberg, Nirmal Bang Institutional Equities Research

Exhibit 31: Spreads on Corporate Bonds increasing



Source: St. Louis Fed

Exhibit 32: Flattening yield curve

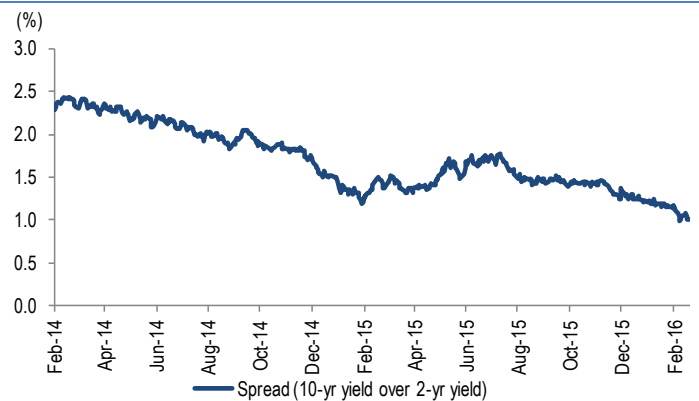
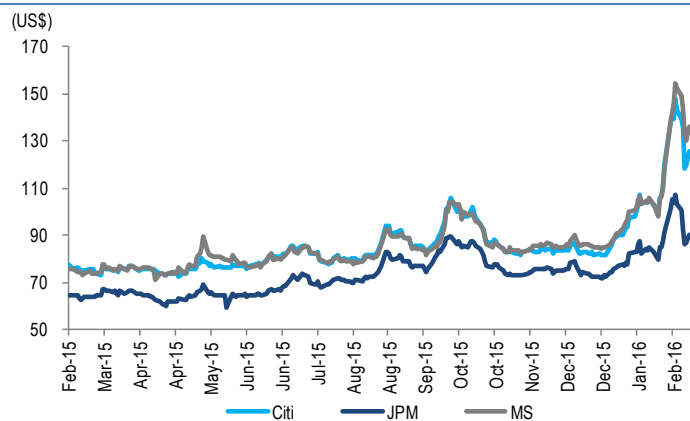
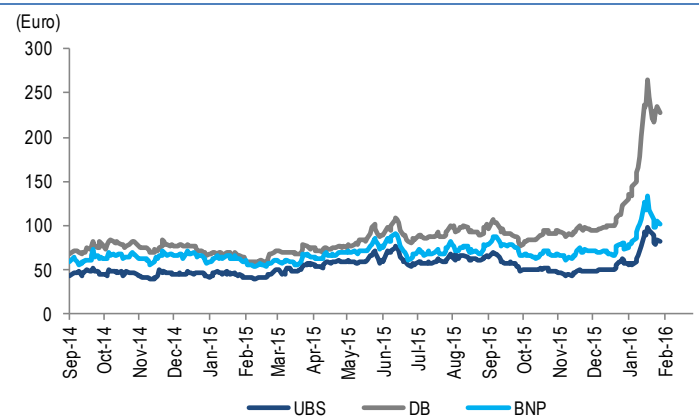


Exhibit 33: CDSs of financial services firms in US



Source: Bloomberg, Nirmal Bang Institutional Equities Research

Exhibit 34: CDSs of European financial service companies

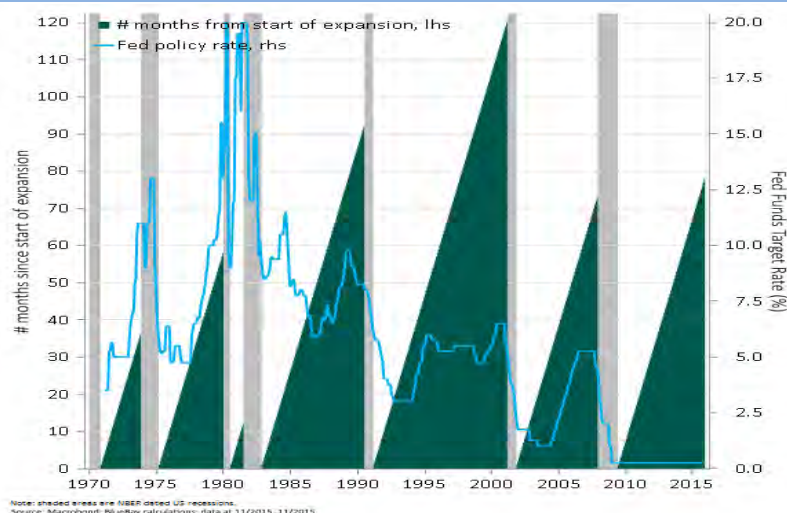


Source: Bloomberg, Nirmal Bang Institutional Equities Research

A turn in the cycle is due. It will be the Second longest expansion by 2016 end

A study of US expansions over the last 45 years indicates that the current expansion is the 3rd longest and with in another year would potentially be the 2nd longest (see Exhibit 35). This along with various weakening macro indicators point to a slowing US economy in 2015-2017, if not an outright recession.

Exhibit 35: Duration of US expansions and Fed policy interest rates



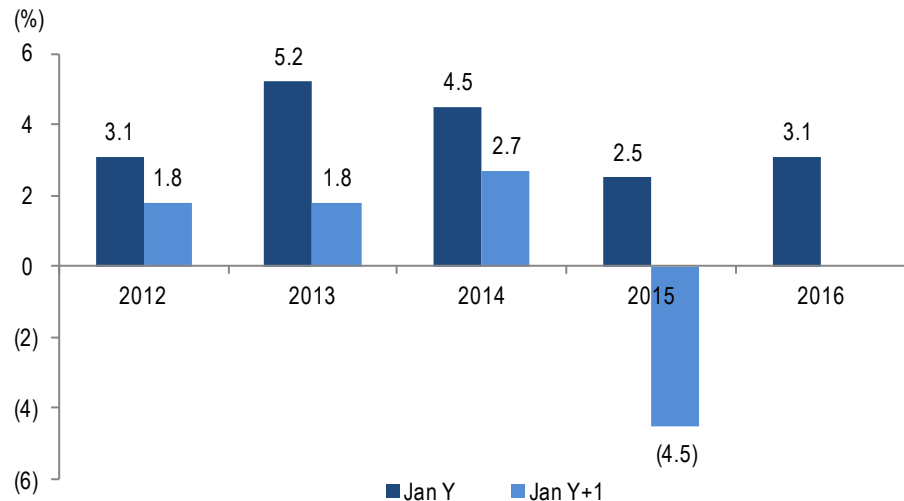
Note: Shaded areas are NBER dated US recessions

Source: Macrobond

Gartner starts of its yearly estimate with as strong number

Global research and advisory firm, Gartner's predictions on IT services spending growth over the course of the past four years have mostly been revised downwards and particularly so in 2015. It is now predicting an increase of spending again in 2016 of about 3.1%. We will need to take this number with a pinch of salt as Gartner has a history of revising down its growth estimates which it sets in the beginning of the year. The big drop seen in 2015 is largely driven by USD strength.

Exhibit 36: Gartner estimates for IT services spend growth

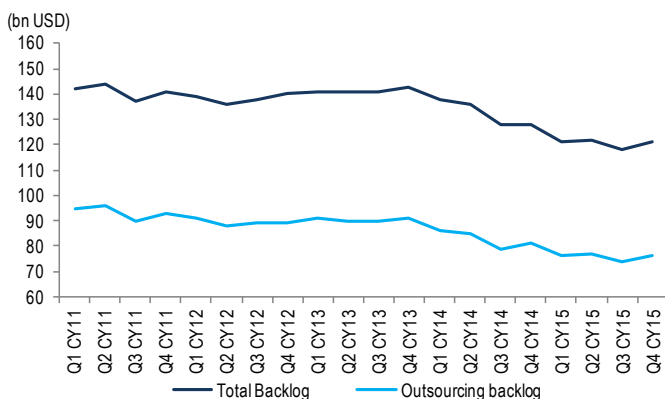


Source: Gartner, Nirmal Bang Institutional Equities Research

Order book position of IBM (the industry leader) indicates a poor outlook

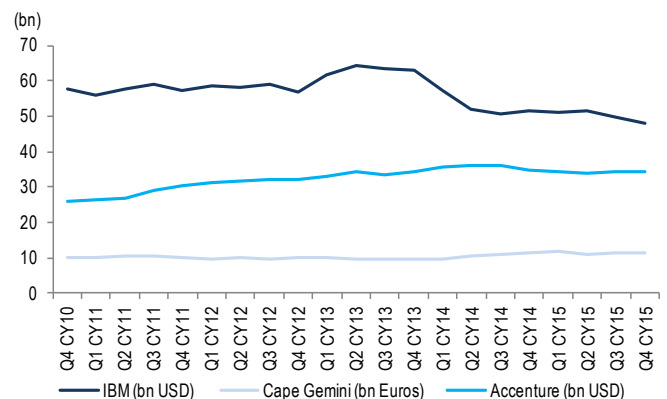
The order book position of IBM (which has been deteriorating), (See Exhibit 37) perhaps also gives an insight into the weakness of growth in the market. It could also mean a possible loss of market share to Accenture and some of the Indian players.

Exhibit 37: IBM order backlog



Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 38: Trailing 12M order inflow



Source: Company, Nirmal Bang Institutional Equities Research

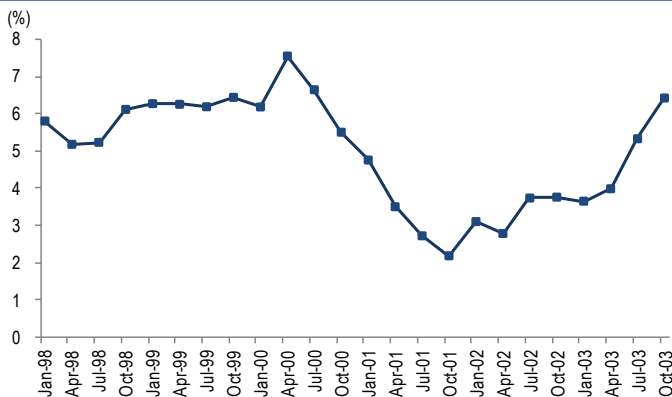
Study of previous down cycles

In previous down cycles there was a material step-down in growth rate of the industry (2001-02) and (2008-09). The first episode coincided with a mild recession/slowdown and the second with a deep one. While a recession (either mild/deep) is not the base case we are working with, the fact that the sector has grown in size and is also facing structural headwind due to value compression from automation, is expected to slow down from a growth of 6%-9% (in FY16) to 3%-5% in FY18 in the base case (a subjective 60% probability). We believe that even a mild recession in US (our worst case, 25% probability in our view) could potentially take the sector growth to 0% to negative territory. The optimistic case (a continuation of 2.0-2.5% growth, 15% probability) will keep stocks elevated (and moving upward).

2001-02 episode

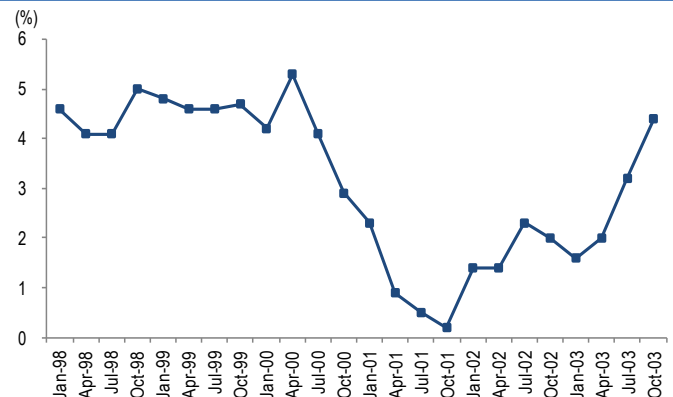
This slowdown was post a phase of hyper growth for Indian IT sector (on a low base, admittedly) because of the first flush of off shoring, Y2K-related demand and work related to settling up e-commerce websites. As can be seen in Exhibit 41, the growth rate of the industry shifted down from 56% to 14%. P/E multiples of stocks like Infosys and Wipro, which were stratospheric in early 2000 (Exhibits 47 and 48), came down to relatively reasonable levels. There was some pricing pressure (Exhibit 45) as customers were reluctant to pay a big premium for e-commerce-related work amid price competition among Indian players as anticipated volumes did not come through. This downturn coincided with the dotcom bust and a mild recession/slowdown that took place in US (Exhibits 39 and 40).

Exhibit 39: US nominal GDP YoY growth (1998-2003) – Quarterly basis



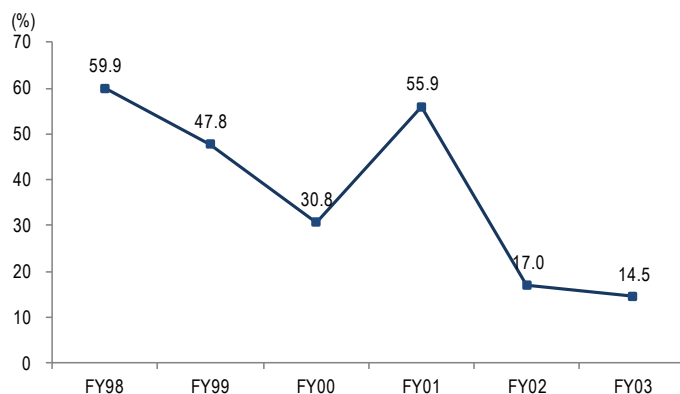
Source: Bloomberg, Nirmal Bang Institutional Equities Research

Exhibit 40: US real GDP YOY growth (1998-2003) – quarterly basis



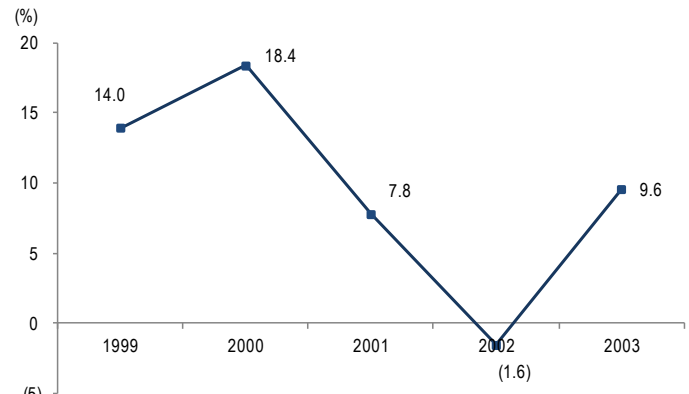
Source: Bloomberg, Nirmal Bang Institutional Equities Research

Exhibit 41: Growth rate of industry came off significantly in FY2002...



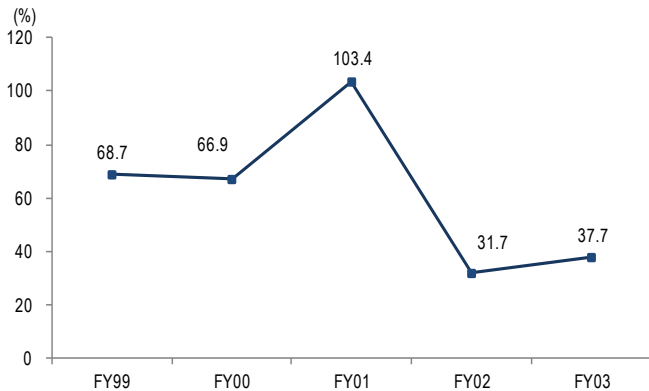
Source: Nasscom, Nirmal Bang Institutional Equities Research

Exhibit 42: ...even as S&P 500 companies' sales growth also declined



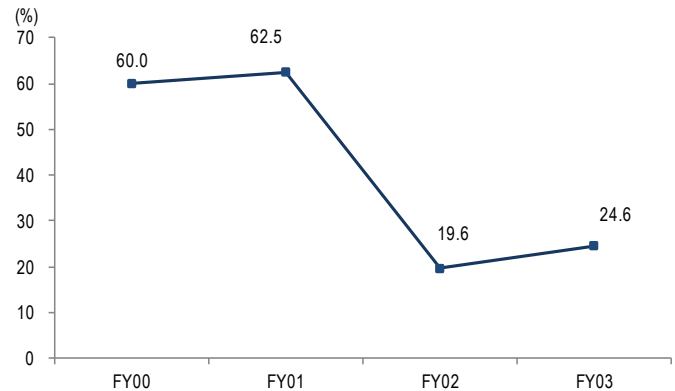
Source: Bloomberg, Nirmal Bang Institutional Equities Research

Exhibit 43: Growth rate of Infosys during FY1999-FY2003



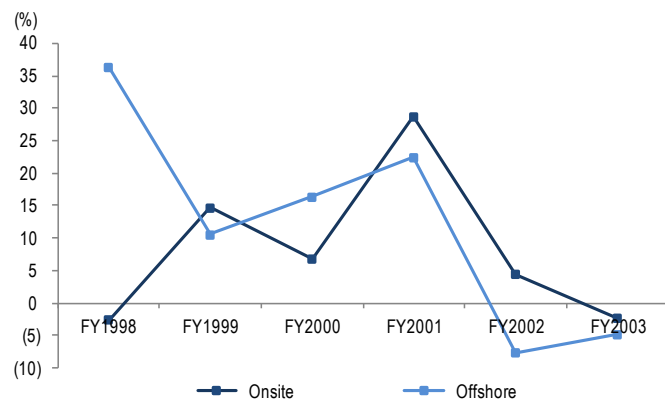
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 44: Growth rate of Wipro during FY2000-FY2003



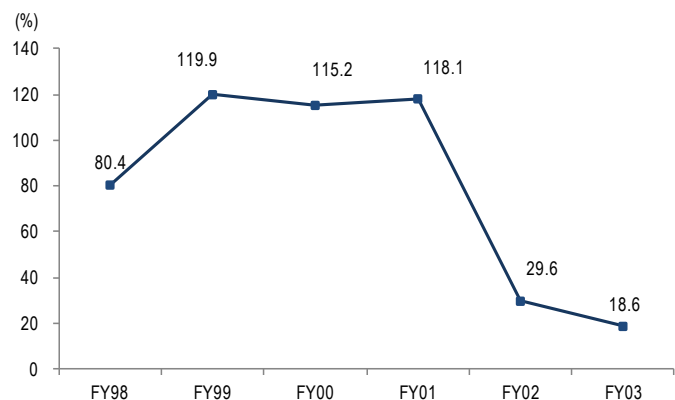
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 45: Onsite and offshore bill rate of Infosys came down during FY1998-FY2003



Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 46: INR EPS growth of Infosys during FY1998-FY2003 held up



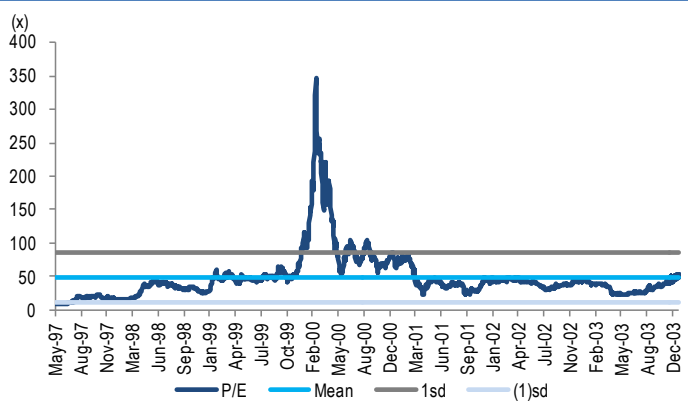
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 47: Infosys- P/E multiple during FY1998-FY2003



Source: Bloomberg, Nirmal Bang Institutional Equities Research

Exhibit 48: Wipro- P/E multiple during FY1998-FY2003

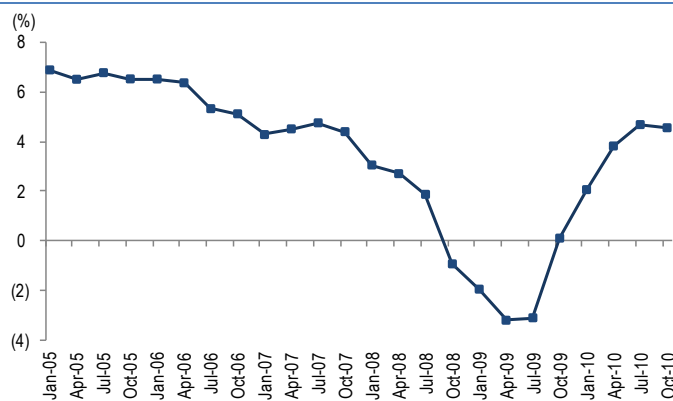


Source: Bloomberg, Nirmal Bang Institutional Equities Research

2008-09 episode

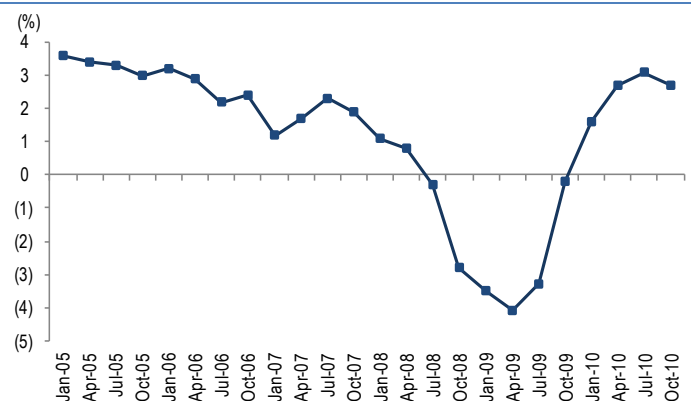
The sub-prime mortgage-led Global Financial Crisis (GFC)-related US recession in 2008-09 was deep and affected global financial companies significantly. This again led to a step-down in industry growth rate and P/E multiples. Growth came off from the level of >30% level in FY08 to 6.5% in FY10. P/E multiple of Infosys (bellwether stock of pre-2008 time frame), collapsed from a peak of 30 to a low of 10. Other companies' P/E multiples came off a lot more. Interestingly, INR earnings of some of the larger players were not impacted as INR depreciated substantially vs the USD during that time (from a peak of 39.2 to 50.35 in the year 2008). The 2008-09 episode also serves a lesson on why one should not overestimate the support that will be provided by INR. During CY08 (Exhibit 58), while Nifty was down by 52%, CNXIT was down by 55% and Bank Nifty was down by 49%. Sectors that outperformed were FMCG and Pharma. This is despite INR depreciating during the course of the year quite substantially. The low-high of INR during 2008 was 39-50.

Exhibit 49: US nominal GDP YoY growth (2005-10) – Quarterly basis



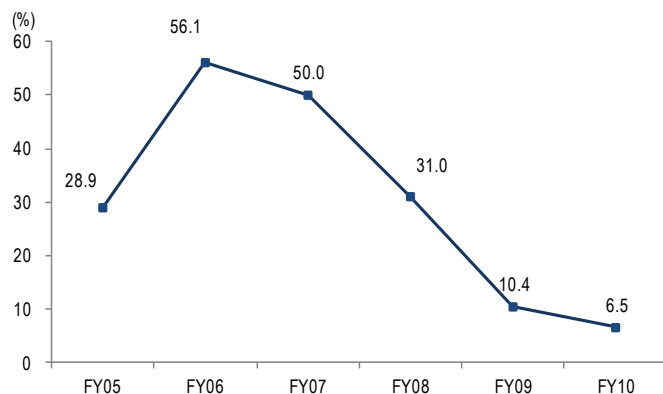
Source: Bloomberg, Nirmal Bang Institutional Equities Research

Exhibit 50: US real GDP YoY growth (2005-10) – quarterly basis



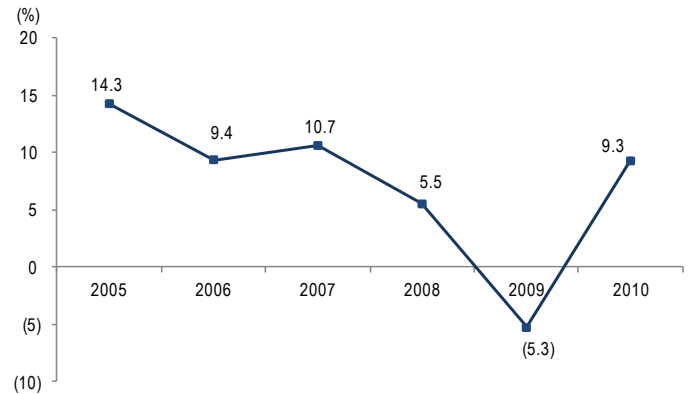
Source: Bloomberg, Nirmal Bang Institutional Equities Research

Exhibit 51: Growth rate of industry came off significantly FY05-FY10



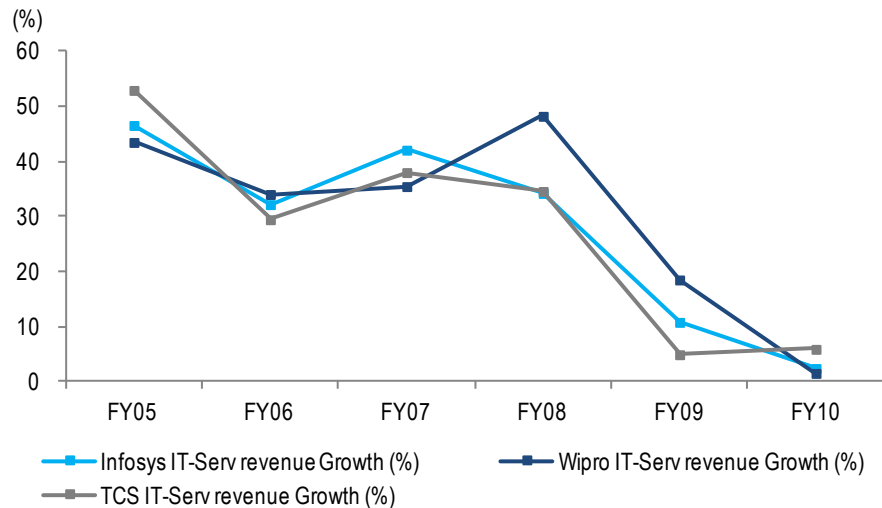
Source: Nasscom, Nirmal Bang Institutional Equities Research

Exhibit 52: S&P 500 companies' sales also came off significantly during GFC



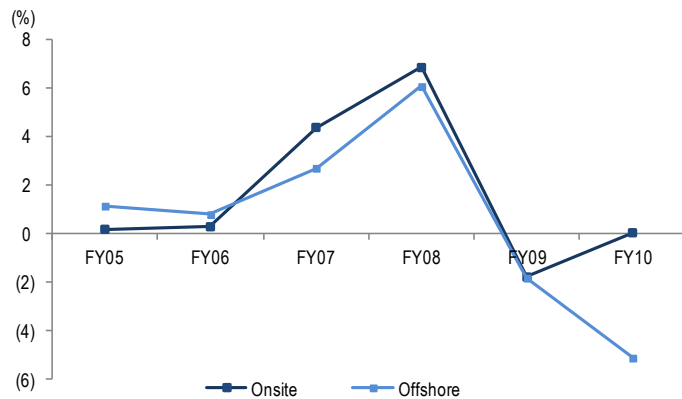
Source: Bloomberg, Nirmal Bang Institutional Equities Research

Exhibit 53: Growth rates of Infosys, Wipro's IT services and TCS during FY05-10



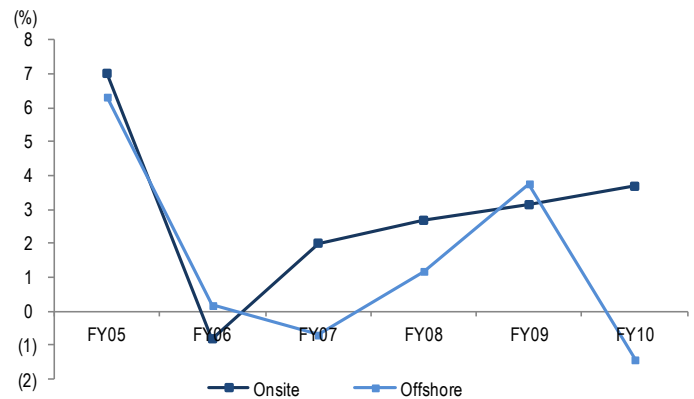
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 54: Offshore and onsite billing rate growth of Infosys during FY05-FY10



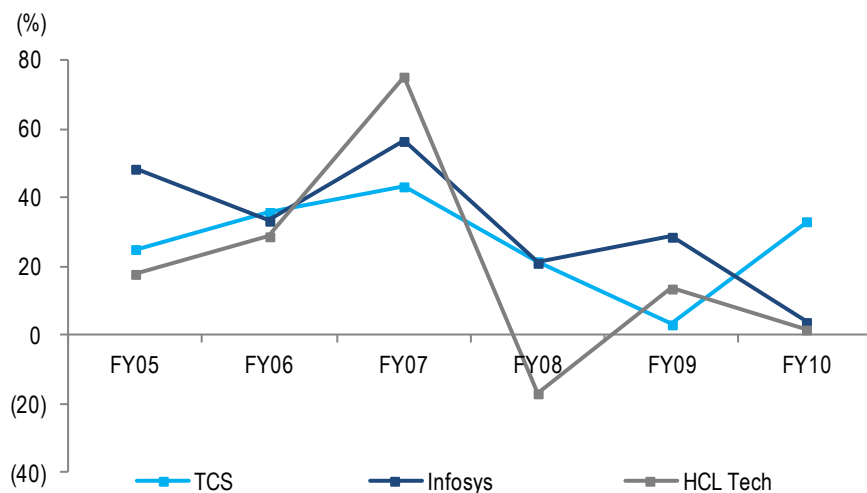
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 55: Offshore and onsite billing rate growth of Wipro during FY05-FY10



Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 56: INR earnings growth of TCS, Infosys, HCL Technologies (FY05-FY10)



Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 57: P/E multiple compression of Tier- 1 players during FY05-FY10

TCS



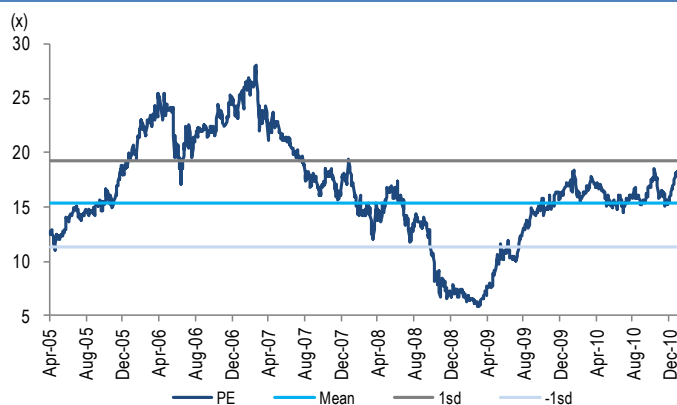
Source: Company, Nirmal Bang Institutional Equities Research

Infosys



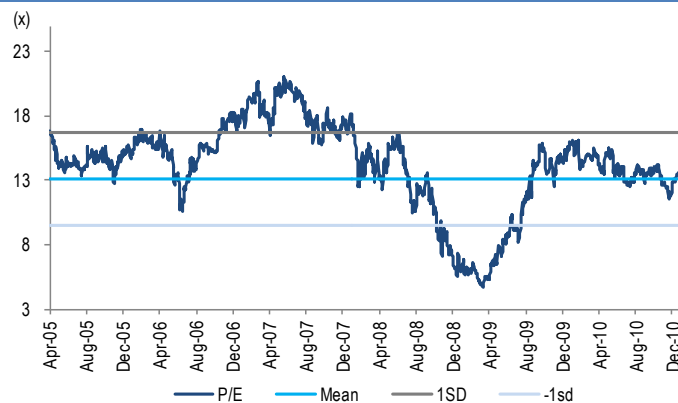
Source: Company, Nirmal Bang Institutional Equities Research

Wipro



Source: Company, Nirmal Bang Institutional Equities Research

HCL Technologies



Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 58: Performance of various indices from CY06 till date

Stock performance (%)	CY06	CY07	CY08	CY09	CY10	CY11	CY12	CY13	CY14	CY15	Q1 CY15	Q2 CY15	Q3 CY15	Q4 CY15	CY16 TD
TCS	43.5%	-11.8%	-55.6%	214.0%	55.4%	-0.4%	8.2%	73.0%	17.8%	-4.7%	-0.2%	-0.1%	1.5%	-5.8%	-3.6%
Infosys	49.6%	-21.0%	-37.0%	133.2%	32.4%	-19.6%	-16.2%	50.3%	13.2%	12.1%	12.5%	-11.3%	18.0%	-4.9%	3.4%
Wipro	30.8%	-13.2%	-55.6%	191.3%	20.4%	-18.8%	-1.1%	58.9%	-0.7%	0.8%	13.3%	-13.1%	9.4%	-6.3%	-4.3%
HCL Tech.	19.0%	2.8%	-65.0%	222.0%	22.9%	-15.0%	59.5%	104.1%	26.5%	7.1%	22.8%	-6.2%	6.8%	-12.9%	-4.4%
Tech Mahindra	-	-32.4%	-78.1%	300.6%	-29.1%	-18.3%	62.5%	97.1%	41.1%	-19.5%	-2.9%	-24.1%	16.6%	-6.4%	-10.6%
Persistent	-	-	-	-	-	-23.6%	55.9%	90.9%	70.1%	-22.9%	-14.1%	-16.0%	10.9%	-3.6%	-6.6%
Cognizant	53.5%	-12.0%	-46.8%	151.0%	61.7%	-12.3%	14.9%	36.7%	4.3%	14.0%	18.5%	-2.1%	2.5%	-4.1%	-7.7%
Accenture	27.9%	-2.4%	-9.0%	26.6%	16.8%	9.8%	24.9%	23.6%	8.6%	17.0%	4.9%	3.3%	1.5%	6.4%	-0.9%
CapGemini	40.2%	-9.6%	-36.0%	16.3%	9.3%	-30.9%	36.1%	49.5%	21.1%	43.9%	28.4%	3.9%	0.3%	7.5%	-10.7%
Mindtree	-	-	-52.8%	193.9%	-19.3%	-29.1%	71.7%	123.9%	67.9%	11.7%	1.6%	-2.3%	18.9%	-5.3%	-53.2%
Hexaware	51.8%	-57.1%	-75.3%	347.4%	23.3%	29.0%	13.3%	54.8%	51.6%	21.9%	56.5%	-18.3%	-3.1%	-1.7%	6.3%
Cyient	81.9%	-2.7%	-67.2%	198.1%	12.4%	-36.2%	63.1%	90.2%	51.4%	-7.2%	-2.9%	15.2%	-3.4%	-14.1%	-12.9%
Mphasis	103.7%	1.4%	-49.5%	365.4%	-7.1%	-55.3%	27.8%	14.5%	-12.4%	29.1%	0.0%	6.6%	-0.1%	21.3%	-10.2%
NIIT Tech.	85.8%	16.1%	-70.2%	154.9%	10.2%	-7.0%	31.6%	49.0%	2.7%	56.4%	-5.8%	11.7%	21.2%	22.6%	-19.5%
Intellect Design	-	-	-	-	-	-	-	-	-	241.6%	30.7%	-3.9%	67.4%	62.5%	-27.6%
OFSS	81.5%	-22.6%	-69.7%	406.2%	0.9%	-20.6%	77.3%	0.1%	2.0%	11.0%	-3.0%	16.0%	4.4%	-5.4%	-9.6%
Ramco Systems	-29.3%	9.9%	-78.8%	99.8%	13.0%	-40.3%	40.0%	62.7%	210.7%	68.2%	36.3%	22.9%	-4.6%	5.2%	-15.2%
Just Dial	-	-	-	-	-	-	-	-	-6.1%	-37.7%	-2.2%	-4.1%	-22.5%	-14.3%	-19.5%
Info Edge		130.8%	-69.5%	116.6%	49.2%	-14.1%	21.5%	34.0%	84.1%	0.3%	-1.2%	1.7%	-6.5%	6.9%	-8.3%
Makemytrip	-	-	-	-	-	-11.1%	-48.3%	54.8%	34.9%	-34.0%	-15.5%	-10.4%	-30.1%	24.8%	2.0%
Index performance (%)															
Nasdaq	6.8%	18.7%	-41.9%	53.5%	19.2%	2.7%	16.8%	35.0%	17.9%	8.4%	2.3%	1.5%	-4.9%	9.9%	-6.7%
S&P 500	13.6%	3.5%	-38.5%	23.5%	12.8%	0.0%	13.4%	29.6%	11.4%	-0.7%	0.4%	-0.2%	-6.9%	6.5%	-2.7%
Stox 600	17.8%	-0.2%	-45.6%	28.0%	8.6%	-11.3%	14.4%	17.4%	4.4%	6.8%	16.0%	-4.0%	-8.8%	5.2%	-8.8%
DAX	22.0%	22.3%	-40.4%	23.8%	16.1%	-14.7%	29.1%	25.5%	2.7%	9.6%	22.0%	-8.5%	-11.7%	11.2%	-11.6%
Nikkei	6.9%	-11.1%	-42.1%	19.0%	-3.0%	-17.3%	22.9%	56.7%	7.1%	9.1%	10.1%	5.4%	-14.1%	9.5%	-11.5%
MSCI EM	29.2%	36.5%	-54.5%	74.5%	16.4%	-20.4%	15.1%	-5.0%	-4.6%	-17.0%	1.9%	-0.2%	-18.5%	0.3%	-0.4%
Bovespa	32.9%	43.6%	-41.2%	82.7%	1.0%	-18.1%	7.4%	-15.5%	-2.9%	-13.3%	2.3%	3.8%	-15.1%	-3.8%	14.4%
HSCEI	94.0%	55.9%	-51.1%	62.1%	-0.8%	-21.7%	15.1%	-5.4%	10.8%	-19.4%	3.0%	5.1%	-27.5%	2.7%	-12.8%
CNX BANK	32.5%	64.2%	-49.3%	80.5%	30.6%	-32.4%	56.5%	-8.7%	64.6%	-9.7%	-2.8%	0.5%	-5.9%	-1.7%	-10.3%
CNX IT	39.0%	-11.4%	-54.6%	166.0%	28.7%	-18.0%	-1.9%	58.0%	17.8%	0.0%	7.7%	-8.7%	9.0%	-6.8%	-3.4%
CNX FMCG	17.1%	22.3%	-19.6%	41.6%	30.6%	8.6%	48.5%	12.2%	18.2%	0.3%	-1.2%	1.4%	-1.0%	1.2%	-5.6%
CNX AUTO	28.3%	5.0%	-54.9%	194.2%	34.9%	-19.4%	42.5%	9.4%	56.7%	-0.3%	4.1%	-2.8%	-7.4%	6.4%	-6.9%
CNX ENERGY	20.1%	96.7%	-48.2%	61.0%	3.4%	-28.7%	13.8%	0.4%	8.5%	-0.7%	-4.4%	7.6%	-14.1%	12.3%	-5.7%
CNX PHARMA	25.0%	14.6%	-25.6%	59.1%	35.3%	-10.0%	31.9%	26.5%	43.4%	9.3%	17.3%	-5.0%	5.9%	-7.4%	-2.8%
CNX METAL	93.9%	139.3%	-73.6%	227.4%	0.0%	-47.7%	17.7%	-14.3%	7.0%	-31.3%	-12.6%	-1.6%	-27.5%	10.2%	2.3%
CNX INFRA	55.4%	95.2%	-57.2%	39.7%	-4.0%	-38.5%	21.7%	-4.2%	22.7%	-8.9%	6.9%	0.1%	-13.2%	-2.0%	-11.4%
CNX MID-CAP	29.0%	76.9%	-59.4%	99.0%	19.2%	-31.0%	39.2%	-5.1%	55.9%	6.5%	3.3%	0.1%	-0.2%	3.2%	-8.1%
CNX SMALL-CAP	41.6%	87.3%	-71.0%	107.0%	17.6%	-33.9%	36.8%	-8.3%	55.0%	7.2%	6.6%	-5.3%	-1.7%	8.0%	-15.2%
NIFTY	39.8%	54.8%	-51.8%	75.8%	17.9%	-24.6%	27.7%	6.8%	31.4%	-4.1%	2.5%	-1.4%	-5.0%	0.0%	-5.8%
USD/INR	44.3	39.4	48.8	46.5	44.7	53.1	55.0	61.8	63.0	66.2	62.5	63.7	65.6	66.2	67.1

Source: Company, Nirmal Bang Institutional Equities Research

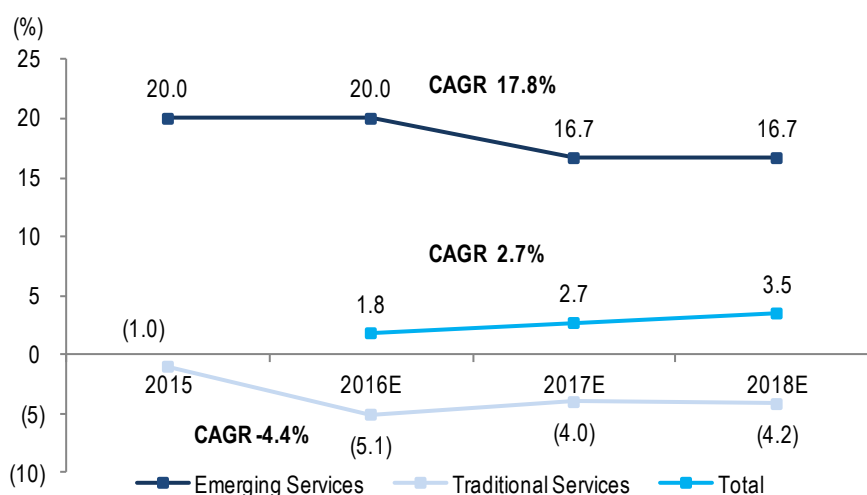
Structural issues

Automation: Mini cycle of creative destruction on the cards

As stated in our initiating coverage report - [Structural And Cyclical Speed-breakers Ahead](#)- Indian IT industry has been built on the bedrock of labour cost arbitrage, as reflected in the decades-old onsite:offshore model. We believe this model is likely to be challenged by pieces of software that tend to dis-intermediate the human element (especially the offshore one which does a lot of mundane repetitive work). Increasing cognitive powers of these pieces of software will make more and more parts of the sector vulnerable to revenue/value compression. Unlike in many other cases connected with the technology sector in the past, we see no outside player - at least as of now - taking away the market. We believe the incumbents have been embracing automation at a calibrated pace till now. We see constrained demand and intense competition accelerating that pace. We believe the bargaining power of various players within the industry will undergo a change. We believe a hybrid model of human and digital labor will develop. We do not see revenue falling off the cliff, but definitely see insipid revenue growth as this churn plays out over the next three-five years until Digital, IOT or some new technology becomes a sizable part of revenues and drives growth. Our base case view is that margins will not be hurt in a material way during this phase. However, any panicky and irrational behavior by players could hurt profitability of the entire industry.

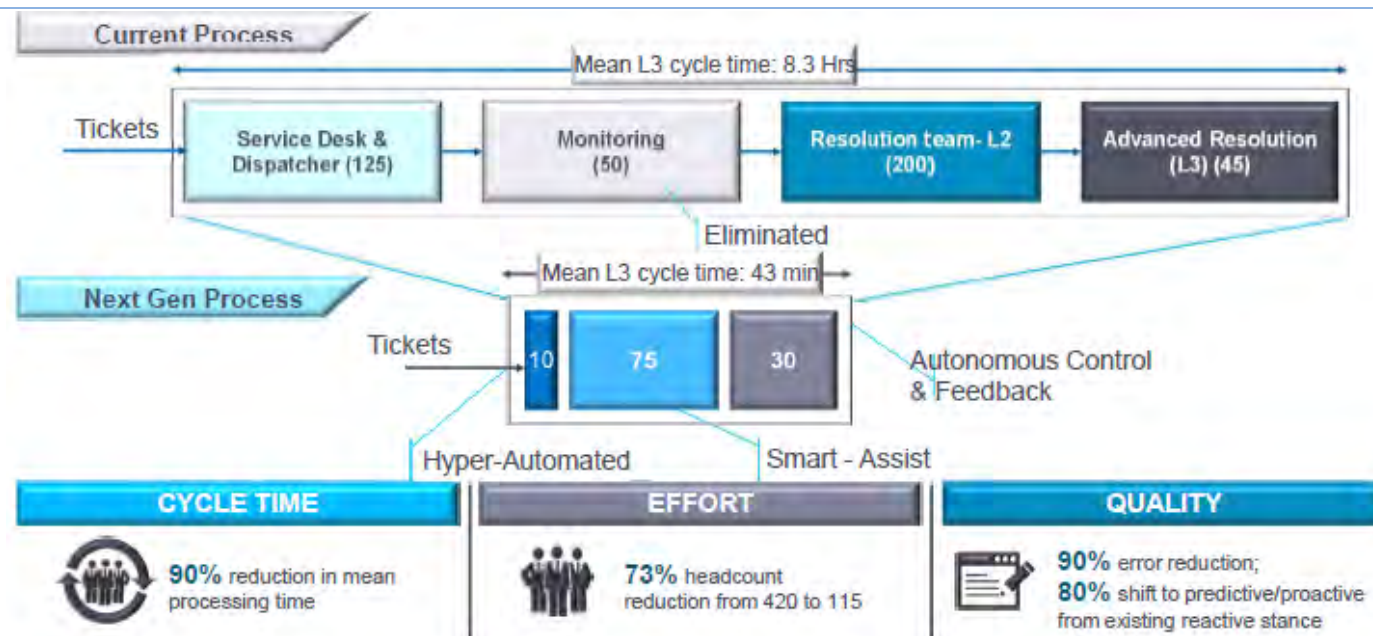
The value compression in Traditional services is captured in an analysis that has been put out by Forrester Research, an independent technology and market research company (Exhibit 59). This analysis indicates that the pain in traditional services has just started and will likely accentuate in the coming years with steeper cuts. That automation delivers significant benefits is captured by an analysis done by Wipro of an internal process that it automated (Exhibit 60). The gains are significant from a time, effort as well as accuracy standpoint. The large benefits derived from here are what the vendor shares with the customer.

Exhibit 59: Traditional services will see pressure accentuate



Source: Forrester Research June 2015

Exhibit 60: Impact of Hyper-automation - Effort and time required reduces significantly. Accuracy improves



Source: Wipro

The 'defender versus challenger' situation will force revenue cannibalisation

Most Indian companies have indicated that they will embrace automation in a calibrated manner in order to prevent revenue cannibalisation. Firstly, it will be deployed in new projects (we assume from new customers). Secondly, it will be used in existing fixed-priced projects to improve margins and lastly in existing time and material (T&M) projects. We believe that such a sequencing and calibration looks nice on paper, but is difficult to implement in the real world. When a customer is new to a vendor (when the vendor is a 'challenger') all revenue and profits are an incremental gain, the vendor will try to use automation aggressively. This entails little pain to the challenger. But it will be replacing an incumbent ('defender') in that situation. The incumbent vendor ('defender') will then try to hold on to that customer by employing its own 'automation' capability. There could also be flanking attacks from the defender on contracts which come up for renewal from the challenger's revenue base. This 'defender versus challenger' situation, we believe, will be pervasive across the industry in certain service lines (IMS, BPS and AM), thereby leading to revenue compression for the entire industry. Besides, we believe that there will be very few companies in the Global 2000 set which are not being serviced by Indian IT services companies.

Pricing-to-win strategy being employed to regain market share

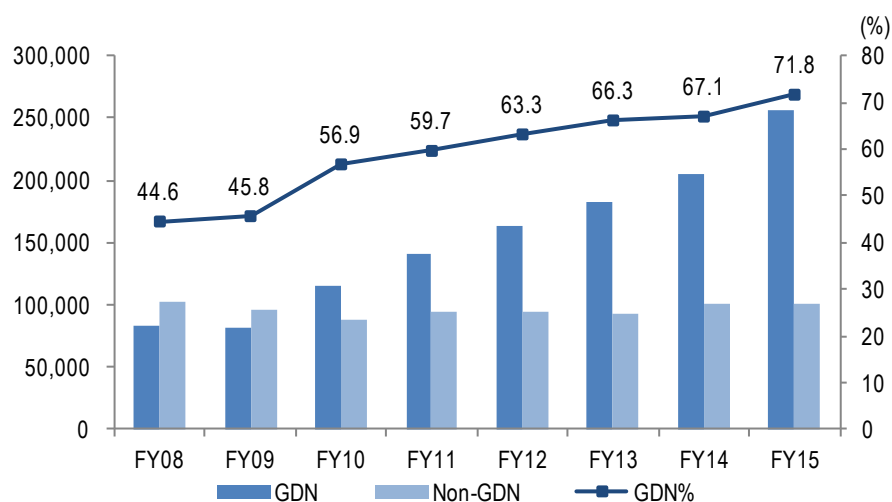
Vendors are committing substantial (20%-40%) productivity gains to customers on large deals assuming that they will be able to recoup margins (lost in the initial 12-18 months of the contract) using tools that they do not have currently, but are expected to develop in future. Infosys, over the past few quarters, has been 'pricing-to-win' on large deals. After winning a large deal, Infosys figures out how to hit a certain target margin by internal measures. A lot of margin uptick that is expected by the company in such projects is based on development of cognitive automation tools in future. So, while there are other operational levers like employee utilisation, employee pyramid, etc to play with in FY16, it requires material improvement in automation capabilities to maintain the current margin range, let alone increase it in the coming days. We believe the industry is getting into a more risky phase. This convergence of capabilities and strategies is what we have been worried about and had indicated that it could lead to some irrational responses from some players. While these practices seem largely restricted to some large deals currently, we believe the incremental impact on margins (ex- INR) is negative as companies try to jostle for increasing their market share. Infosys for instance wants to push up its large deal TCV from USD600mn that it has been clocking as an average in the last 4 quarters to as much as USD1.5bn-2bn in the coming years. Such shift in market shares are not going to be without pain for the industry.

Accenture has been eating the Lunch and Dinner of Indian players

We have been writing quite extensively about the fact that Accenture is more akin to an offshore delivery heavy IT services firm now than ever in the past along with some added advantages. See [Accenture- Secret Sauce of Accenture-Part I](#) and [Part II](#).

It has been adding to its offshore volume while keeping its onsite component constant (see Exhibit 61). Thus, while the GDN component has gone up to levels where Indian players are currently, the EBIT margin of Accenture has remained largely flat, indicating that it has been bidding very competitively against Indian players on the outsourcing side (where competition is likely very intense) while possibly getting better rates on the consulting side (and possibly better EBIT/per capita) because of lower competition (and lower presence of Indian players). The reason this is happening is because of its good balance sheet structure where in it is the only company within our known universe of IT services firms that has been running business on negative working capital there by generating RoICs significantly ahead of Indian competition and its own cost of capital. We believe this source of advantage has some more room to run and could pose a structural problem for Indian players in the coming years.

Exhibit 61: Accenture's share of global delivery is now closer to that of Indian players



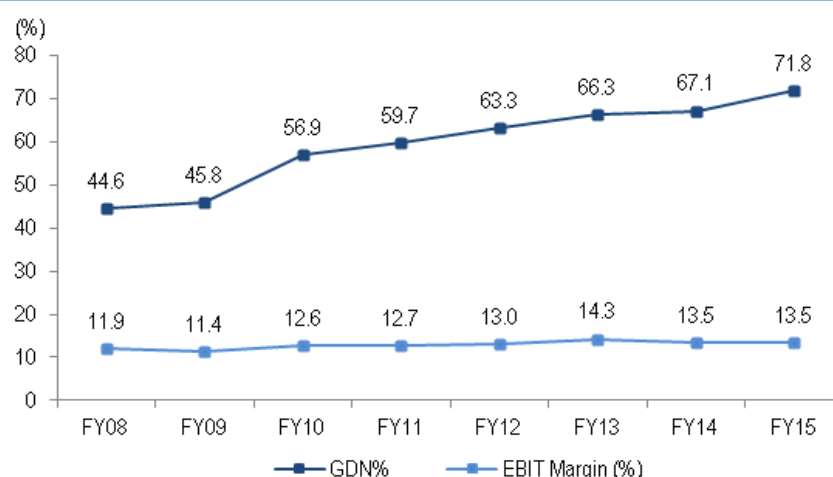
Source: Companies, NBIE. Note: Number of employees in LHS

Exhibit 62: Revenue productivity of various players

(US\$)	FY11	FY12	FY13	FY14	FY15
Accenture	1,15,902	1,15,896	1,10,571	1,04,206	91,940
TCS	41,221	41,902	41,887	44,741	48,346
Infosys	48,798	49,388	50,250	54,594	49,458
Wipro	42,658	43,563	42,643	45,312	44,759
Tech Mahindra	27,736	28,366	31,678	34,637	35,471
HCL Technologies	46,014	49,237	54,808	58,454	56,096
Cognizant	44,200	44,453	46,882	51,594	48,523

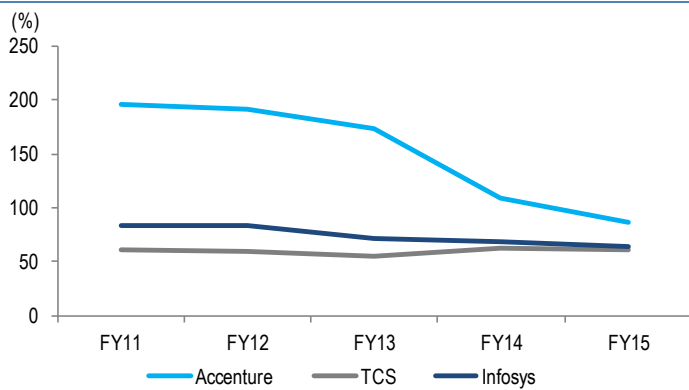
Source: Companies, NBIE

Exhibit 63: While delivery mix has shifted to GDN, margins have only ticked up marginally



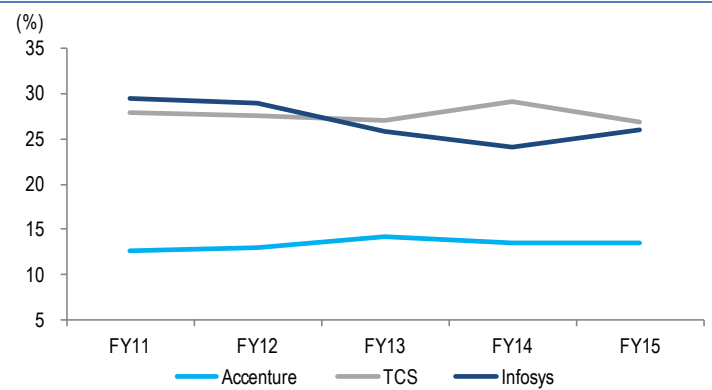
Source: Companies, NBIE

Exhibit 64: RoIC movement of Accenture, TCS and Infosys over the years



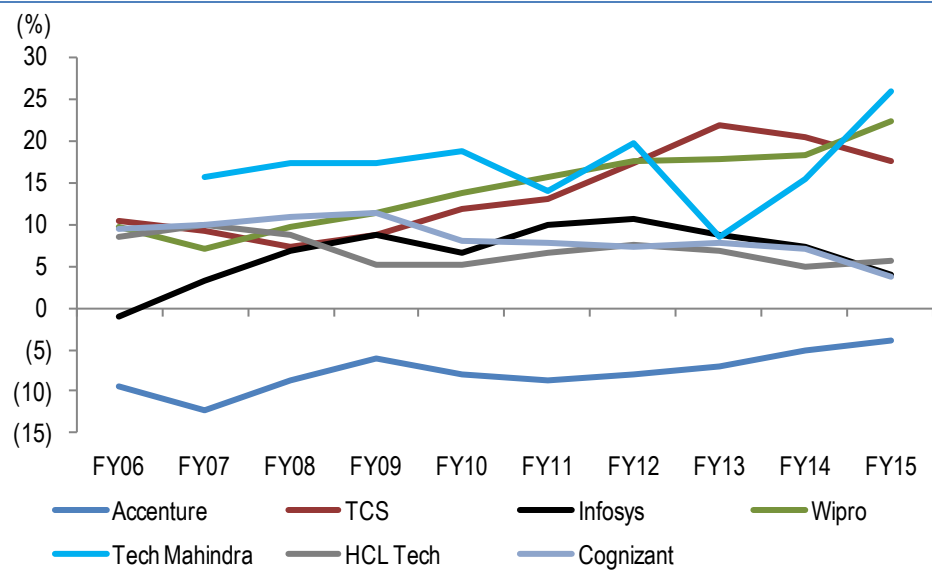
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 65: EBIT margin movement of Accenture, TCS and Infosys over the years



Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 66: Working capital movement table of Accenture and various offshore players (as percentage of sales)



Source: Company, Nirmal Bang Institutional Equities Research

Answering some usual push-back questions

This view is too macro-economic analysis-based. How can you be sure that US economy will indeed slow down in 2015-17?

We admit that there is no 100% guarantee that our view will play out exactly as we have forecast. But historical analysis of cycles, incoming macro-economic data, etc makes us believe that there is a high probability of a slowdown if not an outright recession. The more relevant question to ask - based on incoming data – what is the probability of the consensus' implicit view that US GDP will grow at 2.0%-2.5% over 2015-17 is going to be right. That macro-economic growth in US and Europe (key end-markets of the industry) has a big influence on revenue growth is intuitive and statistically proven. Where we could go wrong would be on timing. Our job is to flag off such risks when they are approaching the horizon.

Could the cycle be different this time as monetary policy is in new territory? The usual signals of a slowdown - inverted yield curve, a bubble in the economy, etc are missing.

It is absolutely true that we are probably witnessing some unique macro-economic events - at least in recent times - in US and elsewhere. We have had extended period of close to zero Fed funds rate. We have had quantitative easing, not just in US but also in Europe and Japan, to keep interest rates low. In many parts of the globe, we are witnessing negative interest rate policy to possibly discourage savings and encourage consumption and investment. But despite applying all of these measures, we have had no significant pick-up in output.

Also despite a reasonably strong pick-up in jobs growth, we have not seen pick-up in wages in US and consequently, inflation. Going by past cycles for current levels of unemployment, the interest rates should have been much higher.

Inverted yield curves typically develop when the short-term rates move up on the back of higher Fed funds rate. With the latter not really rising materially, we do not think an inverted yield curve as a signal will really develop. A flattening yield curve – difference between 10-year Yield and 2-year yield – in our view, could be a better indicator (Exhibit 32).

As far as overheating (bubbles) are concerned, typically such things are known only post the event in hindsight and so it is quite possible these are probably not visible currently.

IT services is the only sector that is showing steady earnings growth in a very low growth environment with very good RoCEs and RoEs. So why sell?

As we have stated elsewhere in the report, the standalone call is a bit easier than the relative call. It is very clear that Indian IT services Tier-1 players have delivered very steady 17.4% earnings CAGR growth over the past 5 years turbulent years when Sensex earnings have posted a 5.3% CAGR (Exhibit 67). Thus while USD revenue growth decelerated, and margin pressure became visible, earnings growth held up largely because of steady depreciation of INR. Relatively, there have been disappointing earnings from a host of sectors including banking (especially public sector banks), capital goods, materials, some parts of energy, etc.

We also believe this view is a bit backward looking. The USD revenue growth reset, especially from a FY18 perspective, could be large and could induce reduction in weightage of the sector in FII and DII portfolios, in our view.

We believe over the medium to long-term, revenue and earnings growth of Tier-1 players will likely, at best, match or more likely underperform India's nominal GDP growth. The moment domestic economy picks up (and a broad range of sectors start growing at or higher than nominal GDP growth), the Indian IT sector will start looking a lot less attractive.

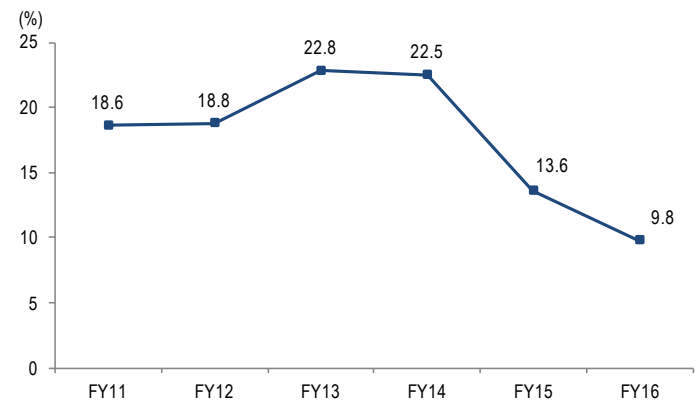
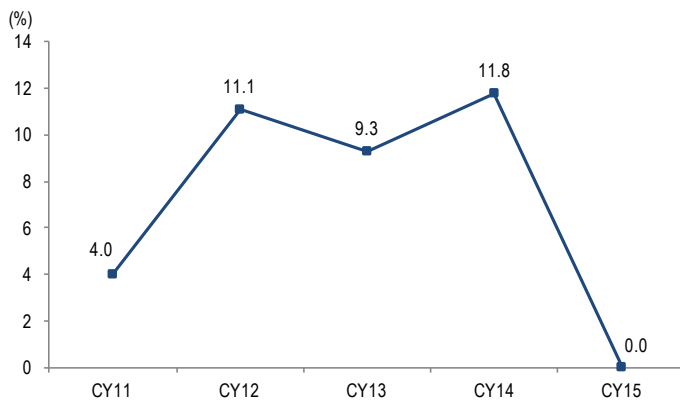
We also believe that in the long-term, industry growth will trend towards growth of global IT services spending, which has been in the low single-digits over the years. We believe the dream run in terms of growth has been on the back of offshore gaining share, which may be slowing in the context of automation.

We also believe that the high RoIC situation that some of the players enjoy are not likely to last in the long run (at least not under the current industry structure). Only the exit of a few players and a lowering of competitive intensity will help matters on this front and keep the other players healthy.

Exhibit 67: Sensex earnings growth over the last 5 years vs Sensex IT companies's earnings growth

Sensex EPS growth

Sensex IT EPS growth



Source: Bloomberg, Companies, Nirmal Bang Institutional Equities Research

Will INR come to the rescue of the sector?

Yes, Fundamentally. But stock prices could see declines. Just as in previous global slowdowns, we believe INR will depreciate. However this was the case in 2008 too but that did not help. It was the consumer and pharma sectors that actually outperformed in that year. If one were to look at the performance in 2008, while Nifty was down by 52% in that year, CNXIT was down by 55% and Banks 49%. INR had depreciated by 24% that year which had protected earnings for the companies in FY2009. However, there was a sharp P/E multiple contraction as risk aversion led to huge FII equity outflow. As we have stated elsewhere in the report (see Exhibit 9), FIIs and the DIIs had double the weight in the IT sector in December 2015 than they had in December 2007. This, in our view, should be a cause for concern.

While INR support is likely to be there in the near term because of global risk-aversion, we expect the pace to slow down as India addresses problems connected with inflation. We have already assumed a depreciated INR/USD in our calculation. Our view on the INR is captured by the report put out by our economist Nikhil Gupta ([Indian Rupee - Revised Outlook- USDINR Set To Weaken Further, But REER To Remain Overvalued](#))

Exhibit 68: Performance of various indices from CY06 till date

Stock performance (%)	CY06	CY07	CY08	CY09	CY10	CY11	CY12	CY13	CY14	CY15	Q1 CY15	Q2 CY15	Q3 CY15	Q4 CY15	CY16 TD
CNX BANK	32.5%	64.2%	-49.3%	80.5%	30.6%	-32.4%	56.5%	-8.7%	64.6%	-9.7%	-2.8%	0.5%	-5.9%	-1.7%	-10.3%
CNX IT	39.0%	-11.4%	-54.6%	166.0%	28.7%	-18.0%	-1.9%	58.0%	17.8%	0.0%	7.7%	-8.7%	9.0%	-6.8%	-3.4%
CNX FMCG	17.1%	22.3%	-19.6%	41.6%	30.6%	8.6%	48.5%	12.2%	18.2%	0.3%	-1.2%	1.4%	-1.0%	1.2%	-5.6%
CNX AUTO	28.3%	5.0%	-54.9%	194.2%	34.9%	-19.4%	42.5%	9.4%	56.7%	-0.3%	4.1%	-2.8%	-7.4%	6.4%	-6.9%
CNX ENERGY	20.1%	96.7%	-48.2%	61.0%	3.4%	-28.7%	13.8%	0.4%	8.5%	-0.7%	-4.4%	7.6%	-14.1%	12.3%	-5.7%
CNX PHARMA	25.0%	14.6%	-25.6%	59.1%	35.3%	-10.0%	31.9%	26.5%	43.4%	9.3%	17.3%	-5.0%	5.9%	-7.4%	-2.8%
CNX METAL	93.9%	139.3%	-73.6%	227.4%	0.0%	-47.7%	17.7%	-14.3%	7.0%	-31.3%	-12.6%	-1.6%	-27.5%	10.2%	2.3%
CNX INFRA	55.4%	95.2%	-57.2%	39.7%	-4.0%	-38.5%	21.7%	-4.2%	22.7%	-8.9%	6.9%	0.1%	-13.2%	-2.0%	-11.4%
CNX MID-CAP	29.0%	76.9%	-59.4%	99.0%	19.2%	-31.0%	39.2%	-5.1%	55.9%	6.5%	3.3%	0.1%	-0.2%	3.2%	-8.1%
CNX SMALL-CAP	41.6%	87.3%	-71.0%	107.0%	17.6%	-33.9%	36.8%	-8.3%	55.0%	7.2%	6.6%	-5.3%	-1.7%	8.0%	-15.2%
NIFTY	39.8%	54.8%	-51.8%	75.8%	17.9%	-24.6%	27.7%	6.8%	31.4%	-4.1%	2.5%	-1.4%	-5.0%	0.0%	-5.8%
USD/INR	44.3	39.4	48.8	46.5	44.7	53.1	55.0	61.8	63.0	66.2	62.5	63.7	65.6	66.2	67.1

Source: Bloomberg, Nirmal Bang Institutional Equities Research

S&P 500 companies' growth will pick up some time and then growth will be back

This will surely happen in the medium to long-term (>2 years), but we see pressure in the near term. We believe that some of the pressures faced by sectors like energy, materials, etc will ease due to base effect. But we believe the Indian IT Services sector's size has become so large, growing meaningfully faster than global IT services spending will be a difficult proposition. The only way out is for the sector to metamorphose and start addressing adjacent technology/SGA spending of customers in a more aggressive way than in the past. We believe the industry has already been focused on this through its initiatives on addressing R&D and engineering spending as well as spending on Business Process Outsourcing space.

Valuations at current level look attractive, especially for a sector that throws up so much cash!

We believe the current valuations may be appropriate if one takes a >2-year view. In the interim period, however, we see growth slowing, margins coming under pressure and RoICs getting shaved off. We also worry about the longevity of some organisations in the space. Over the past 15 years, the industry (globally) has seen disappearance/irrelevance of a few large players. We do not rule out such a scenario in the Indian IT services context too. We believe there are at least five to seven large companies in the market currently which broadly have the same strategies and capabilities. And all of them have high EBIT margins and high RoICs that are significantly higher than the cost of capital. Not a sustainable situation, especially if their growth rates tend towards that of global IT services spending. As regards cash, we expect the companies to step up dividend payouts as their top-line growth slows and growth opportunities reduce. Therefore, dividend payments will go up in the medium to long-term. The key question to ask is which of them would be around in the long term.

Risks

We currently expect a negative 11.9% return for our coverage universe over the next 12 months.

Risks that could lead to higher returns than we have forecast:

- A pick-up in sales growth in developed market enterprises from current levels to above average rates. We think this could happen if:
 - Wage growth picks up, leading to greater purchasing power in the hands of the consumer
 - Companies decide to cut back on returning capital to shareholders and start to invest larger than current sums in technology
 - Non-US developed market growth starts picking up. This has to be combined with continued healthy growth in the US at current levels – 2.0%-2.5%
 - US dollar starts to weaken against the extremely strong position that it is at currently. This should translate into better revenue and profits for US multinationals having global operations.
- INR depreciates far more than we have factored in: This will happen if:
 - A higher-than-expected or an earlier-than-expected (or both) Fed rate hike happens. This is assuming that everything else remaining constant, especially that US continues grow at a healthy rate.
 - Indian domestic economy's growth disappoints over the next 12-18 months, making investors sceptical and fund flows adverse
 - Steep increase in the price of crude oil which will put pressure on the current account deficit or CAD.
- US growth remains at the 2.0-2.5% levels in 2016 and more importantly 2017: This could lead to S&P 500 companies' sales growth in the low to mid single-digit territory and could lead to Indian IT services industry growing in high single-digit rate.
- Adoption of automation is much slower than what we expected. We expect to see 20%-30% of the existing revenue base of companies to witness volume pressure within the next two-three years.

Risks that could lead to returns being even lower than what we expect:

- A recession (mild/deep) in US over the next two years
- We believe the use of automation is in its initial stages. We expect the usage to pick up pace gradually over the next three years, but we do not expect large-scale deployment of it in a short period of time. If the latter happens, revenue growth will be considerably slower than what we have forecast.
- We have not factored in entry of a completely new player into the industry, which is software-driven. There is an outside chance that such a situation may arise.

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Tata Consultancy Services

14 March 2016

Reuters: TCS.BO; Bloomberg: TCS IN

Likely Slower FY16-FY18 Growth Yet To Be Priced In

We reinstate the Sell rating on Tata Consultancy Services (TCS) with a March 2017 target price of Rs2,055 (downside of 13%) which is based on 14.4x FY18E EPS. Over the past 12 months, the stock is down 9.5% and has lost the P/E premium which it had commanded versus Infosys because of revenue growth underperformance (against expectation). The growth rate gap between TCS and its peers in Indian IT services space has narrowed considerably. We believe with convergence of capabilities and strategies between various Tier-1 IT services players there is unlikely to be a wide differential in growth rates of TCS and others over FY16E-FY18E, unlike in the pre-FY16 time frame. Despite TCS' P/E de-rating, the continuation of our adverse stance on TCS is based on the view that the sector's revenue growth and P/E multiple are likely to contract in the base-case scenario that we have assumed for the US economy in 2016 and 2017 (see the sector part), which could impact TCS too. The target P/E multiple that we have accorded to TCS is in line with that of Infosys and is also in line with -1 SD below 10-year mean P/E multiple that TCS had. The 10-year low was 6.5 in 2008-09 and therefore we are not being overly pessimistic. Over the past 12 months, revenues of TCS have underperformed expectation because of some one-off factors like: (1) Continued weakness in Diligenta, (2) Lack of growth pick-up in Japan and volatility in Latin America as well as India geographies, (3) Weakness in energy vertical and volatility in telecom. With some of these problems easing, we believe TCS should be able to deliver USD revenue growth in line with that of FY16 (aided partly by lower cross-currency head winds too). However, FY18 could be a completely different story. Its large size and its large exposure to traditional services that is witnessing value compression and likely-to-be-pressured BFSI vertical, in our view, makes it vulnerable to growth disappointment in what will be a weak macro-economic environment.

Taken early steps in 'Digital', but traditional services dominate: TCS, based on the management commentary as well as its financial performance, has been investing ahead of the curve in new areas like 'Digital', industry platforms, services industrialisation/automation, new geographies, etc, over the years. These have contributed to the above-industry growth rate witnessed in the past (pre FY16). However, a large part of its business (about 85%) still comes from traditional services. Going by QoQ growth in 'Digital' in recent quarters, this large piece seems to be showing anemic growth. This is not very surprising as we believe there is revenue cannibalisation that is going on because of automation and a move to the cloud, especially in renewal contracts, which may be exerting pressure on its existing revenue base.

Convergence of capabilities and strategies within peer set to limit market share gain: We believe the lead that TCS built in traditional services was because of its early investments and geographic spread. However, over the past three to four years, its peer group also stepped up investments in building automation tools, deepening vertical capabilities and expanding geographic reach, organically as well as inorganically. This, in our view, led to its market share growth getting restricted. Its industry-leading EBIT margin (26-27%) and its high RoIC (60%-70%) makes it vulnerable to competitive situations with players who work with lower margin (20%-22%) and RoIC profiles (30%-35%).

We are not sure about its capabilities in consulting: While Digital has been a key revenue driver in recent quarters, we believe capabilities of TCS are more back-end focused (which is where the meat of the contracts lies) rather than front ended. However, based on commentary from some of its overseas peers (which have front-to-back capabilities), it is very critical for vendors to have consulting skills so that they can be part of the early conversations with customers and influence the chunkier downstream business. Most India-based players seem to have weaker consulting divisions. We believe this could potentially create a handicap. We believe Accenture (specifically) and Cognizant (to a lesser extent) have built good consulting teams that help them get into client organisations at a very senior level and at a very early stage driving a greater share of incremental business.

SELL

Sector: Information Technology

CMP: Rs2,360

Target price: Rs2,055

Downside: 13%

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Shubham Gupta

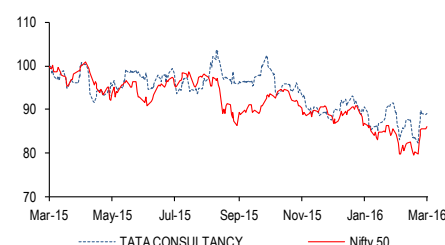
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Key Data

Current Shares O/S (mn)	1,970.4
Mkt Cap (Rsbn/US\$bn)	4,600.6/69.4
52 Wk H / L (Rs)	2,770/2,115
Daily Vol. (3M NSE Avg.)	1,069,211

Share holding (%)	1QFY16	2QFY16	3QFY16
Promoter	73.9	73.9	73.4
FII	14.4	12.7	16.8
DII	7.3	8.9	5.1
Public	4.5	4.5	4.6

One-Year Indexed Stock



Price Performance (%)

	1 M	6 M	1 Yr
TCS	7.6	(7.3)	(9.3)
Nifty Index	7.7	(3.6)	(13.7)

Source: Bloomberg

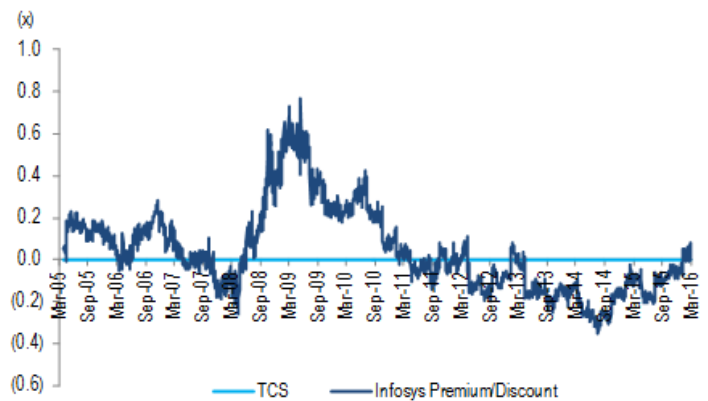
(Based on 11th March 2016 closing price)

Exhibit 1: P/E Multiple slightly below the long-term average



Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 2: P/E Premium enjoyed by TCS with respect to Infosys has waned over the last year



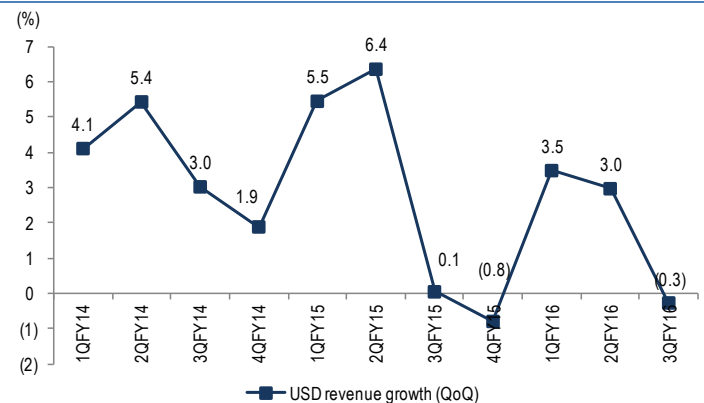
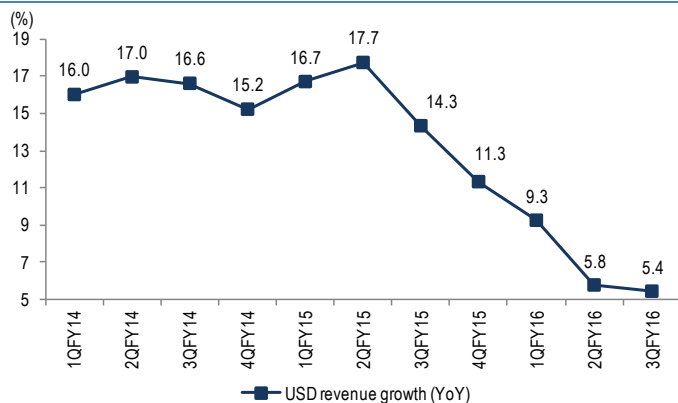
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 3: Nine-month period YoY comparison

Y/E March (Rsmn)	9M FY15	9M FY16	YoY (%)
Net sales	7,04,287	8,01,976	13.9
Software expenses	3,89,997	4,48,375	15.0
% of sales	55.4	55.9	-
Gross margin	3,14,290	3,53,601	12.5
% of sales	44.6	44.1	-
Operating expenses	1,25,957	1,39,820	11.0
% of sales	17.9	17.4	-
EBIT	1,88,333	2,13,782	13.5
EBIT margin (%)	26.7	26.7	-
Other income	20,105	21,452	6.7
PBT	2,08,438	2,35,233	12.9
Provision for tax	48,811	55,325	13.3
Effective tax rate	23.4	23.5	-
Minority share in profit / loss	1,725	1,172	(32.1)
PAT (reported)	1,57,902	1,78,737	13.2
NPM (%)	22	22	-

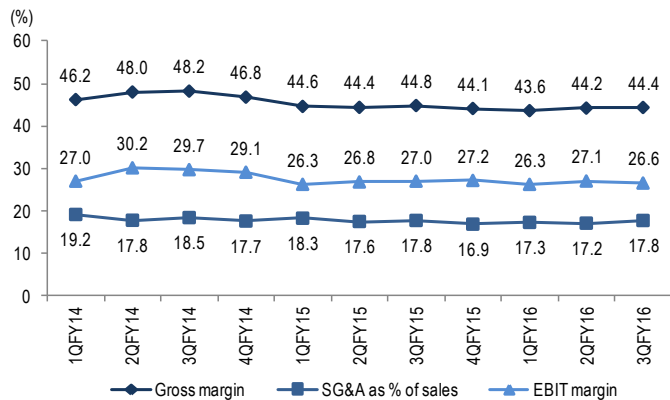
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 4: USD revenue growth has fallen steeply over the last 5-6 quarters on account of multiple pressure points in the portfolio as well as cross-currency headwinds



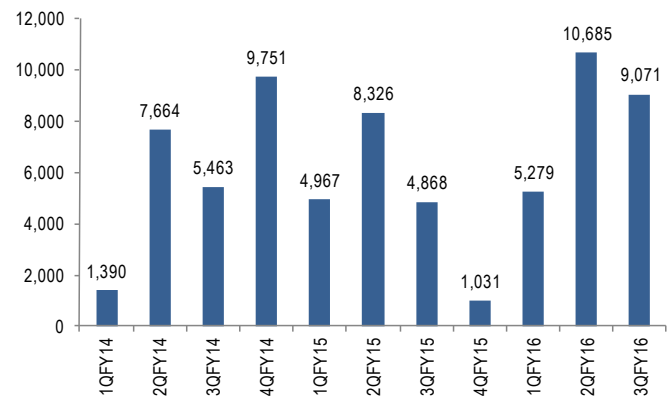
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 5: EBIT margin maintained within the target band of 26%-28%



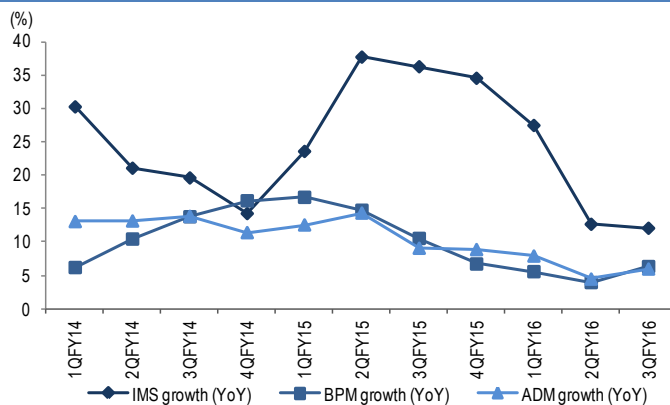
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 6: Net employee addition



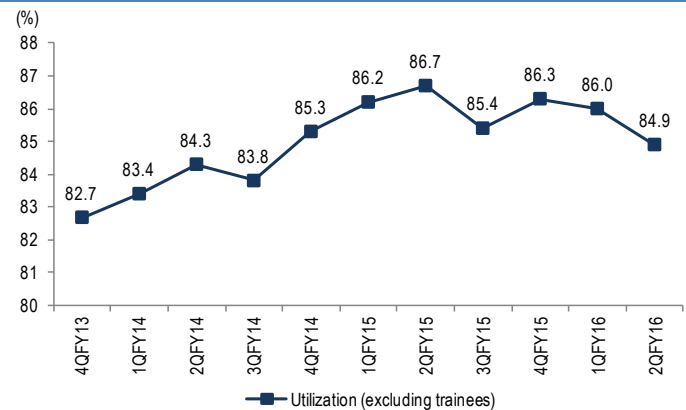
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 7: IMS continues to be main driver of growth among service lines (INR terms)



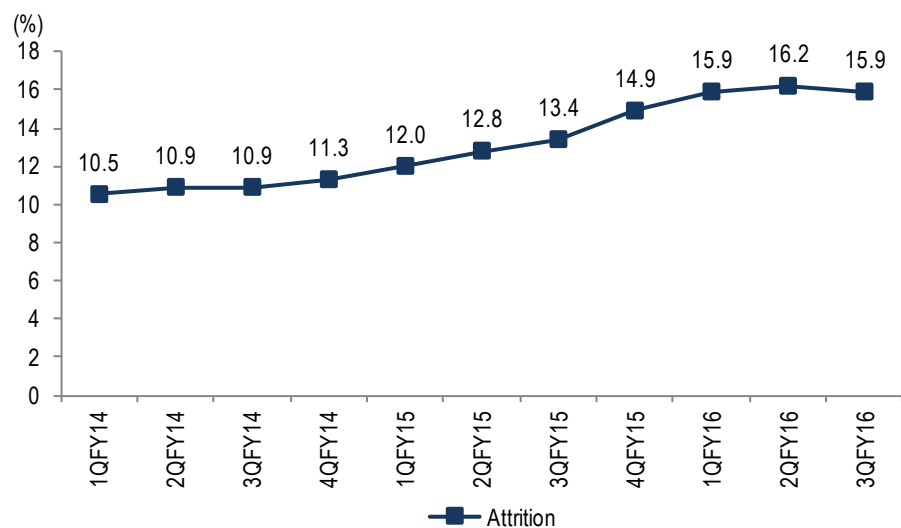
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 8: Employee utilisation rate continues to be maintained at very high levels



Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 9: Attrition rate has been trending upwards for the last two years



Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 10: Key metrics

	3QFY13	4QFY13	1QFY14	2QFY14	3QFY14	4QFY14	1QFY15	2QFY15	3QFY15	4QFY15	1QFY16	2QFY16	3QFY16
Revenue (US\$mn)	2,948	3,040	3,165	3,337	3,438	3,503	3,694	3,929	3,931	3,900	4,036	4,156	4,145
EBIT (US\$mn)	804	806	856	1,007	1,023	1,021	972	1,055	1,063	1,061	1,061	1,125	1,102
PAT (US\$mn)	652	645	701	740	836	861	845	872	873	951	898	926	926
P&L (Rsmn)													
Revenue	160,699	164,301	179,871	209,772	212,940	215,511	221,110	238,165	245,011	242,198	256,681	271,655	2,73,640
EBITDA	43,809	43,584	48,627	63,295	63,347	62,810	58,149	63,942	66,242	65,911	67,484	73,535	72,762
PAT	35,516	34,970	39,866	46,539	51,797	52,967	50,578	52,884	54,441	59,059	57,089	60,552	61,095
Vertical mix (%)													
BFSI	43.0	43.5	43.0	43.1	42.7	42.9	41.7	40.4	40.5	40.6	40.6	40.5	40.5
Manufacturing	8.5	8.5	8.4	8.4	8.8	8.6	8.6	10.1	10.1	10.2	9.9	9.8	9.9
Telecom	9.5	9.3	9.6	9.3	9.6	9.3	9.4	8.9	8.9	8.1	8.6	8.4	8.4
Life Sciences	5.2	5.1	5.5	5.7	5.9	6.1	6.3	6.3	6.4	6.7	6.9	7.0	7.3
Retail & Distribution	13.4	13.4	14.0	13.9	13.8	13.5	13.8	13.5	13.4	13.6	13.8	13.8	13.8
Hi-Tech	5.8	5.7	5.5	5.4	5.3	5.3	5.5	5.7	5.9	6.0	5.8	5.9	6.0
Travel and hospitality	3.6	3.4	3.4	3.4	3.5	3.5	3.6	3.5	3.5	3.4	3.5	3.6	3.6
Energy And Utility	3.8	3.8	3.7	3.8	3.8	3.8	3.9	4.3	4.2	3.9	4.0	4.0	4.1
Media & Entertainment	2.1	2.1	2.1	2.2	2.3	2.6	2.7	2.7	2.7	2.7	2.5	2.4	2.5
Others	5.1	5.2	4.8	4.8	4.3	4.4	4.5	4.6	4.4	4.8	4.4	4.6	3.9
Horizontal mix (%)													
Application Development & Maintenance	42.4	42.4	42.3	41.7	41.4	41	40.8	40.5	39.5	40.1	40.3	40	39.7
Enterprise Solutions	15.1	15.5	15.1	15.4	15.7	15.7	15.9	15.6	15.4	15.4	15.1	15	17.4
Assurance Services	7.7	7.8	8.1	8.5	8.5	8.4	8.6	8.4	8.5	8.4	8.5	8.7	8.6
Product Engineering Services	4.7	4.6	4.7	4.7	4.6	4.8	4.5	4.6	4.5	4.5	4.5	4.5	4.5
Infrastructure Management	11.7	12.1	11.9	11.8	12	12	12.6	13.8	14.3	14.5	14.7	14.7	15.2
Global Consulting	3.2	3.1	3.5	3.3	3.4	3.4	3.2	3.2	3.7	3.2	2.9	2.5	0
Asset Leveraged solutions	2.8	2.5	2.5	2.7	2.3	2.6	2.5	2.3	2.4	2.3	2.5	3.2	2.8
Business Process Outsourcing	12.4	12	11.9	11.9	12.1	12.1	11.9	11.6	11.7	11.6	11.5	11.4	11.8
Geographic Mix (%)													
North America	52.6	53.2	54.1	53.2	52.7	52.2	52.2	51.0	51.9	52.4	52.8	52.7	53.5
UK	17.5	16.8	17.0	17.3	17.5	17.8	17.7	17.1	16.1	15.9	16.1	16.4	15.9
Europe	9.4	9.4	9.9	11.2	11.6	12.1	12.0	11.5	11.7	11.1	11.0	10.8	10.9
India	7.6	8.8	7.6	6.9	6.3	6.2	6.3	6.5	6.5	6.6	6.4	6.5	6.0
APAC	7.5	7.3	6.9	7.1	7.4	7.4	7.6	10.1	9.7	9.8	9.6	9.4	9.4
Ibero America	3.3	2.4	2.4	2.3	2.3	2.2	2.2	1.9	2.1	2.1	1.9	1.8	2.1
MEA	2.1	2.1	2.1	2.0	2.2	2.1	2.0	1.9	2.0	2.1	2.2	2.4	2.2
Staff utilisation rate (%) (including trainees)													
	72.1	72.2	72.49	75	77.5	77.9	79.8	81.3	82.1	81.5	82.9	82.3	80.9
Number of clients													
US\$100mn +	16	16	19	22	22	24	24	24	25	29	30	33	34
US\$50mn +	47	48	53	53	55	53	58	62	65	68	69	65	65
Employees	263,637	276,196	277,586	285,250	290,713	300,464	305,431	313,757	318,625	319,656	324,935	335,620	3,44,691
Attrition (%)	9.8	10.6	10.5	10.9	10.9	11.3	12.0	12.8	13.4	14.9	15.9	16.2	15.9

Source: Company, Nirmal Bang Institutional Equities Research

Financials

Exhibit 11: Income statement

Y/E March (Rsbn)	FY15	FY16E	FY17E	FY18E	FY19E
Average INR/USD	61.2	65.6	68.1	70.4	71.0
Net Sales (US\$mn)	15,454	16,563	17,788	18,527	19,751
-Growth (%)	15.0	7.2	7.4	4.2	6.6
Net Sales	946	1,087	1,212	1,304	1,402
-Growth (%)	15.7	14.9	11.4	7.6	7.5
Cost of Sales & Services	525	605	675	736	798
Gross Margin	421	482	536	568	604
% of sales	44.5	44.3	44.3	43.6	43.1
SG&A	167	191	217	234	245
% of sales	17.6	17.5	17.9	18.0	17.4
EBIT	254	291	319	334	359
EBIT Margin (%)	26.9	26.8	26.4	25.6	25.6
Other income (net)	31	29	33	38	43
PBT	286	321	352	371	402
-PBT margin (%)	30.2	29.5	29.1	28.5	28.7
Provision for tax	67	75	85	91	101
Effective tax rate (%)	23.3	23.5	24.0	24.5	25.0
Minority Interest	2	1	1	1	1
Net profit	217	244	267	280	301
-Growth (%)	13.5	12.4	9.5	4.6	7.7
-Net profit margin (%)	22.9	22.4	22.1	21.4	21.5

Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 13: Balance sheet

Y/E March (Rsbn)	FY15	FY16E	FY17E	FY18E	FY19E
Equity capital	21	53	53	53	53
Reserves & surplus	563	603	717	829	928
Net worth	584	656	770	882	981
Minority Interest	-	-	-	-	-
Other liabilities	18	20	22	23	25
Total loans	4	2	2	2	2
Total liabilities	605	678	793	907	1,008
Goodwill	39	39	39	39	39
Net block (incl. CWIP)	116	117	120	122	124
Investments	2	-	-	-	-
Deferred tax asset - net	25	29	31	33	36
Other non-current assets	78	65	68	72	77
Other current assets	64	153	155	156	159
Debtors	243	285	307	329	359
Cash & bank balance	19	25	25	25	25
Bank deposits	164	112	206	297	369
Total current assets	489	575	693	807	912
Total current liabilities	144	147	157	167	180
Net current assets	345	428	536	641	732
Total assets	605	678	793	907	1,008

Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 12: Cash flow

Y/E March (Rsbn)	FY15	FY16E	FY17E	FY18E	FY19E
EBIT	254	291	319	334	359
(Inc.)/dec. in working capital	(3)	(55)	(18)	(18)	(25)
Cash flow from operations	251	236	301	316	334
Other income	31	29	33	38	43
Depreciation & amortisation	19	19	19	20	20
Financial expenses	-	-	-	-	-
Tax paid	(67)	(75)	(85)	(91)	(101)
Dividends paid	(170)	(129)	(153)	(168)	(202)
Net cash from operations	65	80	116	114	94
Capital expenditure	(31)	(20)	(22)	(22)	(22)
Net cash after capex	34	59	94	92	72
Inc./(dec.) in debt	1	(2)	-	-	-
(Inc.)/dec. in investments	17	(64)	-	-	-
Equity issue/(buyback)	-	0	-	-	-
Cash from financial activities	18	(66)	-	-	-
Others	(14)	(39)	(1)	(1)	(1)
Opening cash	144	182	137	231	322
Closing cash	182	137	231	322	394
Change in cash	38	(46)	93	91	71

Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 14: Key ratios

Y/E March	FY15	FY16E	FY17E	FY18E	FY19E
Per Share (Rs)					
EPS	110.8	124.3	136.4	142.7	153.7
FDEPS	110.8	124.3	136.4	142.7	153.7
Dividend Per Share	86.7	56.5	66.6	73.3	88.1
Dividend Yield (%)	3.7	2.4	2.8	3.1	3.7
Book Value	298.4	335.1	393.6	450.6	501.2
Dividend Payout Ratio (excl DT)	78.3	45.4	48.9	51.4	57.3
Return ratios (%)					
RoE	37.9	39.4	37.5	33.8	32.3
RoCE	39.9	42.0	40.1	36.5	35.1
ROIC	60.9	62.7	61.5	61.3	62.7
Turnover Ratios					
Asset Turnover Ratio	1.3	1.3	1.3	1.2	1.2
Debtor Days (incl. unbilled Rev)	94	96	93	92	94
Working Capital Cycle Days	57	70	67	66	67
Valuation ratios (x)					
PER	21.3	18.9	17.3	16.5	15.3
P/BV	7.9	7.0	6.0	5.2	4.7
EV/EBTDA	19.5	16.9	15.3	14.6	13.5
EV/Sales	4.9	4.2	3.8	3.5	3.3
M-cap/Sales	4.9	4.2	3.8	3.5	3.3

Source: Company, Nirmal Bang Institutional Equities Research

Rating track

Date	Rating	Market price (Rs)	Target price (Rs)
13 April 2015	Sell	2,619	2,314
17 April 2015	Sell	2,574	2,325
10 July 2015	Sell	2,529	2,173
9 September 2015	Sell	2,540	2,173
5 October 2015	Sell	2,641	2,217
14 October 2015	Sell	2,599	2,248
8 January 2016	Under Review	2,398	-
13 January 2016	Under Review	2,327	-
14 March 2016	Sell	2,360	2,055

Infosys

14 March 2016

Reuters: INFY.BO; Bloomberg: INFO IN

Back To Being A Bellwether, But Stares At A Down Cycle

We reinstate rating for Infosys with a Sell (from Accumulate earlier) with a March 2017 target price of Rs1002 (downside 14%), which is based on 14.4x FY18E EPS. Our change in stance on Infosys is based on the view that the sector's revenue growth and P/E multiple are likely to contract in the base case scenario that we have assumed for the US economy in 2016 and 2017 (see the sector part). The target P/E multiple is -1 SD below 10-year mean, but is not the most pessimistic (10-year low was 10.2 in 2008-09). With revenue growth being the highest among its immediate peers in FY16 and likely to remain so in the foreseeable future and RoICs among the best, we believe Infosys deserves to get back its bellwether status (to be shared with TCS though). We have used 14.4x P/E as a point of reference for target P/E multiples for other players in the sector. Infosys has outperformed its Tier-1 IT services peers on revenue front in each of the past three quarters through better win rates in large deals and a new thrust into areas like IMS. It is the only company that witnessed a revenue upgrade cycle in FY16, while most others have seen the reverse. However, likely cyclical slowdown in the US may impact growth in FY18, in our view, although FY17 could still be fairly robust.

Leadership change has transformed the company: Mr. Vishal Sikka's entry in the middle of 2014 has helped reinvigorate the industry bellwether of the pre-2008 era. The articulation and execution of the 'Renew and New' strategy by the new CEO helped Infosys to gain the confidence of its customers and its employees. Along with inducting fresh top management blood (many from his previous company, SAP), he has tried to transform Infosys from a company that does merely what it is told to do, to one focused on delivering solutions that address both stated and unstated problems of its clients. Focus on large deals with better RFP processes, consulting-driven sales, better employee engagement and incentive structures, grass root project innovation, focus on automation through both internal initiatives and M&A, etc, have helped turn around the company far faster than anybody on the street expected. Also, there has been strong focus on winning in traditional services that constitute a very large part of Infosys' revenue and where it was slipping earlier.

2020 goal not building in global cyclical events: The US\$20bn revenue goal by 2020 comprises US\$16.5bn of organic revenue, US\$1.5bn from new streams and US\$2.0bn from M&A. It also has goals like per capita revenue of US\$80,000 and EBIT margin of 30%. Of these we believe achieving organic revenue of US\$16.5bn is likely to be the most difficult along with that of revenue productivity. While admittedly this is an aspirational goal, it has not factored in an economic down cycle in between that could peg back its targets.

Pricing-to-win strategy could exert pressure on margins going forward: Infosys has been committing substantial (20%-40%) productivity gains to customers on some large deals assuming that it will be able to recoup margins (lost in the initial 12-18 months of the contract) using tools that it does not have currently, but are expected to be developed in the future ([Pricing To Win – Will Cognitive Automation Come To Its Rescue?](#)). A lot of the margin uptick that is expected by the company in such projects is based on development of cognitive automation tools in the future. While such deals may not have been too many in the order book currently, as the revenue size scales up and the pressure to deliver industry-leading growth persists, we believe the company will take on bigger risks. These could potentially be margin-dilutive.

Focus on predictable growth caps margin upside: Infosys stock has witnessed violent swings in the past because of volatile growth in revenue. We believe the aspiration to hit US\$1.5-US\$2.0bn dollar order inflow number every quarter (against an average of US\$610mn in the last four quarters) is a good goal to have in the context of delivering steady, predictable and industry-leading growth ([Focus On Predictable Growth To Cap Margin Upside](#)). However, a large part of this is expected to come in traditional services when contracts come up for rebid. Under such circumstances, the 'pricing to win' strategy will mean that incremental business may be at a margin lower than the extant average.

SELL

Sector: Information Technology

CMP: Rs1,141

Target price: Rs1,002

Downside: 12%

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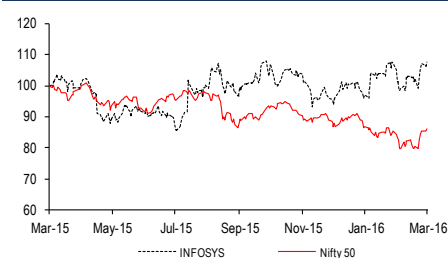
+91-22-3926 8168

Key Data

Current Shares O/S (mn)	2,304.4
Mkt Cap (Rsbn/US\$bn)	2,634/39.2
52 Wk H / L (Rs)	1,220/933
Daily Vol. (3M NSE Avg.)	3,228,623

Share holding (%)	1QFY16	2QFY16	3QFY16
Promoter	13.1	13.1	13.1
FII	41.0	39.9	39.5
DII	16.0	17.0	17.6
Public	13.8	13.8	13.8
Others	16.1	16.2	16.2

One-Year Indexed Stock



Price Performance (%)

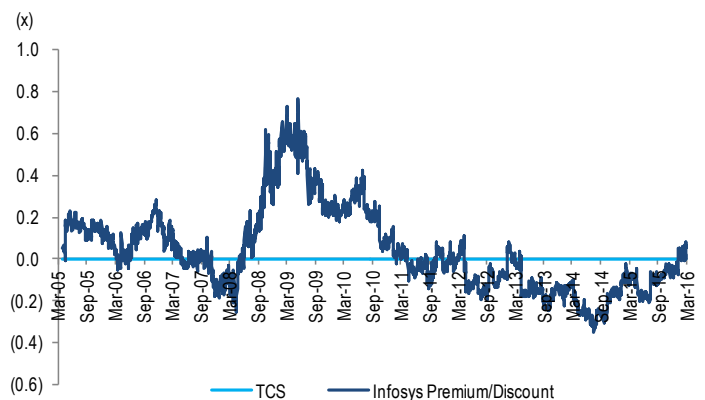
	1 M	6 M	1 Yr
Infosys	6.0	4.8	4.8
Nifty Index	7.7	(3.6)	(13.7)

Source: Bloomberg

(Based on 11th March 2016 closing price)

Exhibit 1: P/E Multiple at the long-term average


Source: Company, Nirmal Bang Institutional Equities Research

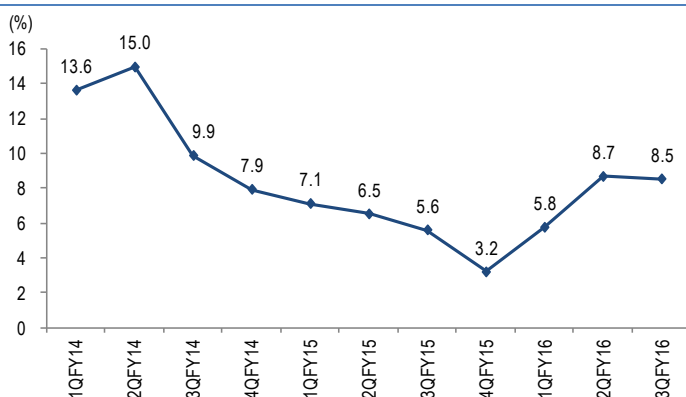
Exhibit 2: Outperformance by Infosys has led to elimination of P/E discount with respect to TCS


Source: Company, Nirmal Bang Institutional Equities Research

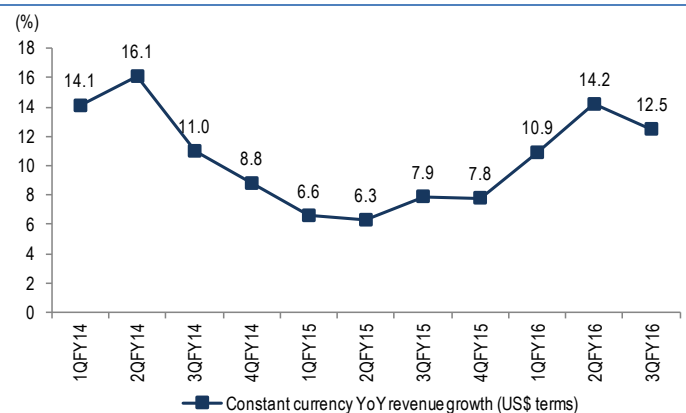
Exhibit 3: Nine-month performance

Y/E March (Rsmn)	9M FY15	9M FY16	YoY (%)
Net sales	3,99,080	4,58,910	15.0
Software development expenses	2,47,090	2,88,370	16.7
% of sales	61.9	62.8	-
SG&A expenses	48,160	56,550	17.4
% of sales	12.1	12.3	-
EBIT	1,03,830	1,13,990	9.8
EBIT margin (%)	26.0	24.8	-
Other income	25,460	23,520	(7.6)
PBT	1,29,290	1,37,510	6.4
Provision for tax	36,970	38,580	4.4
Effective tax rate	28.6	28.1	-
PAT (reported)	92,320	98,930	7.2
NPM (%)	23	22	-

Source: Company, Nirmal Bang Institutional Equities Research

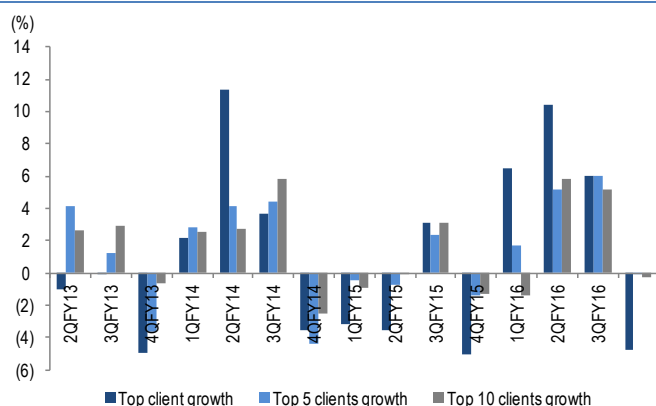
Exhibit 4: US\$ revenue growth (YoY)


Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 5: CC revenue growth (US\$ terms)


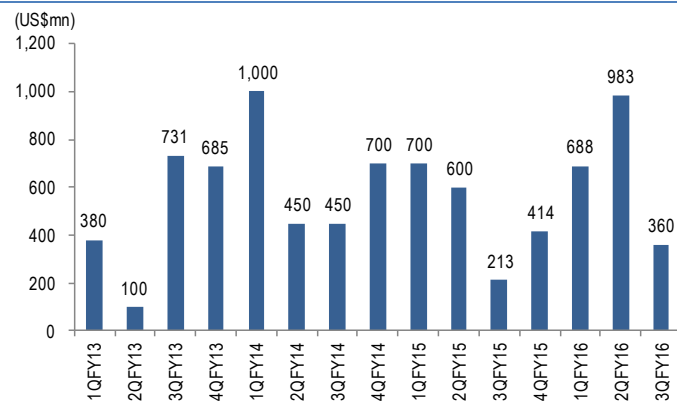
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 6: Top clients' growth rate has picked up over the last year, with last quarter being an aberration



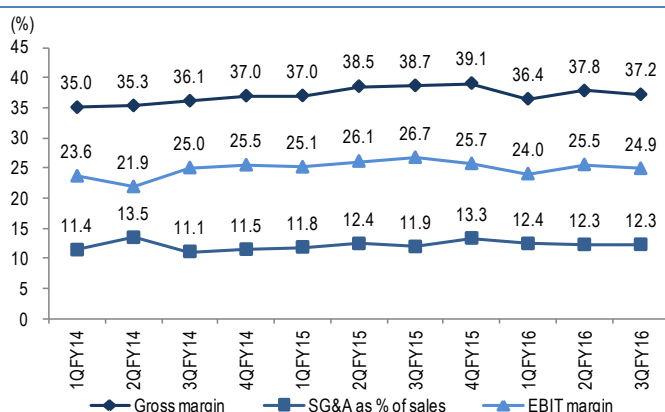
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 7: TCV numbers showing a vast fluctuation on a QoQ basis



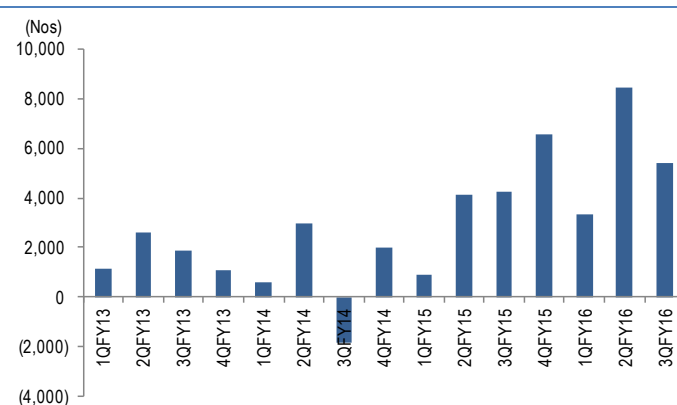
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 8: Gross margin, SG&A expenses, EBIT margin trends



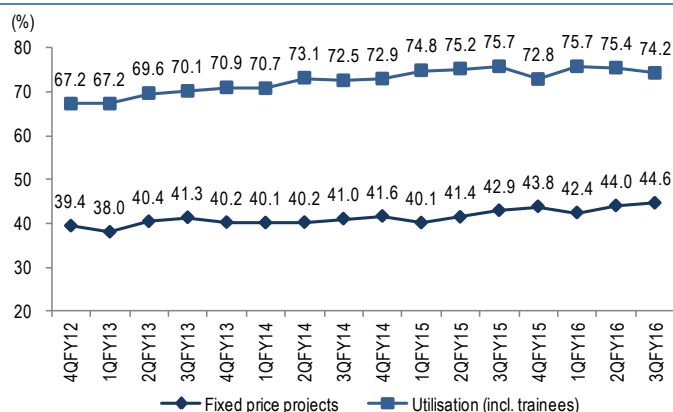
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 9: Employee addition has picked up in recent quarters



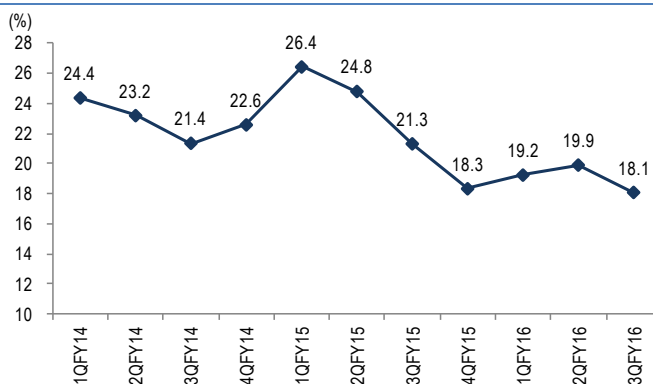
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 10: Fixed-price contract and staff utilisation rate are key levers left for improvement in margins



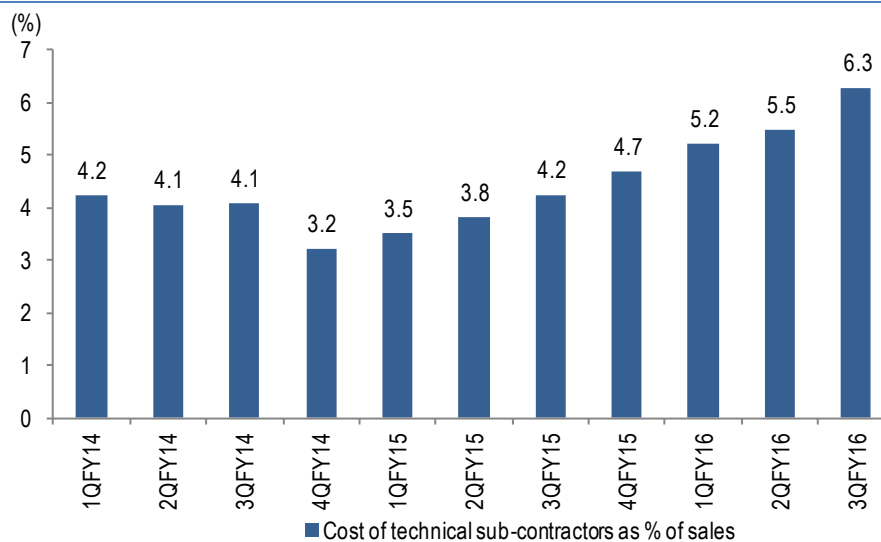
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 11: Attrition rate has begun to decline but still at very high levels



Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 12: Sub-contractor charges on the rise since last 7 quarters



Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 13: Key metrics

	3QFY13	4QFY13	1QFY14	2QFY14	3QFY14	4QFY14	1QFY15	2QFY15	3QFY15	4QFY15	1QFY16	2QFY16	3QFY16
Revenue (US\$mn)	1,911	1,938	1,991	2,066	2,100	2,092	2,133	2,201	2,218	2,159	2,256	2,392	2,408
EBIT (US\$mn)	491	457	468	451	526	534	536	575	592	555	541	610	600
PAT (US\$mn)	434	444	418	383	463	487	482	511	522	498	476	519	525
P&L (Rsmn)													
Revenue	104,240	104,540	112,670	129,650	130,260	128,750	127,700	133,420	137,960	134,110	143,540	156,350	1,59,020
EBITDA	26,770	24,620	26,640	28,370	32,590	32,810	32,110	34,830	36,890	34,490	34,470	39,930	39,590
PAT	23,690	23,940	23,740	24,070	28,750	29,920	28,860	30,960	32,500	30,970	30,300	33,980	34,650
Vertical mix (%)													
Manufacturing	21.7	22.2	22.5	23.2	22.8	23.0	23.2	23.3	23.4	23.8	24.0	23.8	22.8
Insurance, finance and banking	33.7	33.9	33.7	33.4	33.5	33.5	33.4	32.8	33.1	33.6	33.1	32.8	33.5
Telecom	9.6	9.3	8.5	8.3	7.9	8.6	8.7	8.9	8.7	8.3	8.4	7.9	8.0
Retailing & CPG	16.0	15.4	15.8	15.7	16.0	15.5	15.8	15.3	14.9	15.1	15.0	14.9	14.7
Others	12.7	12.5	12.4	12.7	12.8	12.8	12.4	13.1	12.8	12.4	11.9	12.8	13.3
Life sciences	4.8	4.8	4.7	4.6	5.0	4.7	4.6	4.7	5.1	5.1	5.6	5.9	5.8
Healthcare	1.5	1.9	2.4	2.1	2.0	1.9	1.9	1.9	2.0	1.7	2.0	1.9	1.9
Horizontal mix (%)													
Application development	15.8	15.5	15.7	16	15.9	15.5	15.8	16.1	14.9	14.3	14.0	14.0	14.1
Application maintenance	20	19.9	19.3	19.1	19.2	19.4	18.7	18.9	19.5	19.7	19.9	19.6	19.1
Package implementation	32.6	32.7	33.6	33.3	33.4	32.5	32.3	32.4	32.6	32.7	32.8	32.8	33.8
Testing	8.4	8.3	8.4	8.4	8.7	9.2	9.5	9.4	9.1	8.9	8.9	9.0	9.2
Product engineering services	3.2	3.2	3.2	3.3	3.2	3.4	3.4	3.4	3.4	3.5	3.5	3.3	3.4
Business process management	5.2	5.2	5.1	5.1	5.3	5.5	5.3	5.1	5.4	5.3	5.0	4.9	4.9
Infrastructure management	6.9	7.2	7	7.2	6.9	7.2	7.9	7.9	8.2	8.1	8.3	8.7	7.5
Other services	2.4	2.3	2.3	2.3	2.1	2.2	2.3	2.2	2.3	2.5	2.7	2.8	3.0
Products, platforms and solutions	5.5	5.7	5.4	5.3	5.3	5.1	4.8	4.6	4.6	5.0	4.9	4.9	5.0
Products	3.9	4	3.7	3.7	3.8	3.5	3.2	2.9	2.9	3.4	3.2	2.8	3.0
BPM platform	1.3	1.3	1.2	1.2	1.1	1.2	1.2	1.2	1.1	1.0	1.0	1.0	0.9
Others	0.3	0.4	0.5	0.4	0.4	0.4	0.4	0.5	0.6	0.6	0.7	1.1	1.1
Geographic Mix (%)													
North America	61	60.2	61.4	61.5	60	59.8	60.8	60.8	61.6	62.8	63.2	63.3	62.5
Europe	24	25	23.6	24	24.9	25.2	24.5	24.7	24	23.1	22.4	22.9	23.2
India	2.2	2.4	2.6	2.4	2.6	2.6	2.4	2.2	2.5	2.5	2.2	2.3	2.8
Rest of the world	12.8	12.4	12.4	12.1	12.5	12.4	12.3	12.3	11.9	11.6	12.2	11.5	11.5
Project type													
T&M	58.7	59.8	59.9	59.8	59.0	58.4	59.9	58.6	57.1	56.2	57.6	56.0	55.4
Fixed price	41.3	40.2	40.1	40.2	41.0	41.6	40.1	41.4	42.9	43.8	42.4	44.0	44.6
Staff utilisation (%) (including trainees)	70.1	70.9	70.7	73.1	72.5	72.9	74.8	75.2	75.7	72.8	75.7	75.4	74.2
Onsite mix (%)	51.4	52.1	57.5	56.6	51.1	54.7	54.5	54.6	54.8	55.2	56.1	56.1	56.5
Offshore mix (%)	48.6	47.9	42.5	43.4	48.9	45.3	45.5	45.4	45.2	44.8	43.9	43.9	43.5
Client concentration (%)													
Top client	3.6	3.6	3.9	3.9	3.7	3.6	3.4	3.4	3.2	3.5	3.7	3.7	3.5
Top 5 clients	14.6	14.7	14.9	15.0	14.1	14.1	13.7	13.6	13.3	13.9	14.0	14.0	13.9
Top 10 clients	23.9	24.0	24.0	24.5	23.5	23.4	22.9	22.9	22.4	22.7	23.0	22.8	22.6
Number of clients													
US\$1m	419	448	466	469	495	501	520	526	532	529	535	542	555
US\$5m	209	213	215	221	226	232	235	237	240	244	248	258	261
US\$10m	136	137	139	146	148	148	148	150	154	159	161	169	171
US\$25m+	NA	NA	NA	NA	NA	78	78	83	83	83	83	85	89
US\$50m	40	40	41	40	41	42	43	43	46	47	49	50	51
US\$75m+	NA	NA	NA	NA	NA	24	24	27	29	29	28	31	28
US\$100m	12	12	15	15	15	13	12	13	14	15	14	14	13
US\$200m	3	3	3	3	4	3	3	3	4	4	6	6	6
US\$300m	NA	NA	NA	NA	1	1	1	0	0	0	1	1	1
Employee strength	155,629	156,688	157,263	160,227	158,404	160,405	161,284	165,411	169,638	176,187	179,523	187,976	1,93,383
Attrition rate (%)	15.1	16.3	16.9	17.3	18.1	18.7	19.5	20.1	20.4	18.9	19.2	19.9	18.1

Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 14: Quarterly snapshot

(Rsmn)	2QFY14	3QFY14	4QFY14	1QFY15	2QFY15	3QFY15	4QFY15	1QFY16	2QFY16	3QFY16
US\$ revenue	2,065	2,100	2,089	2,134	2,201	2,219	2,160	2,256	2,392	2,408
Revenue	129,650	130,260	128,750	127,700	133,420	137,960	134,110	143,540	156,350	1,59,020
Gross margin	45,810	47,050	47,580	47,240	51,410	53,340	52,370	52,310	59,110	59,120
SGA	17,440	14,460	14,770	15,130	16,580	16,450	17,880	17,840	19,180	19,530
EBIT	28,370	32,590	32,810	32,110	34,830	36,890	34,490	34,470	39,930	39,590
Other income	5,100	7,310	8,510	8,290	8,770	8,400	8,800	7,580	7,920	8,020
PBT	33,470	39,900	41,320	40,400	43,600	45,290	43,290	42,050	47,850	47,610
Tax	9,400	11,150	11,400	11,540	12,640	12,790	12,320	11,750	13,870	12,960
PAT	24,070	28,750	29,920	28,860	30,960	32,500	30,970	30,300	33,980	34,650
YoY growth (%)										
US\$ revenue	14.9	10.7	7.8	7.1	6.5	5.7	3.4	5.7	8.7	8.5
Revenue	31.5	25.0	23.2	13.3	2.9	5.9	4.2	12.4	17.2	15.3
Gross profit	22.0	22.0	30.3	19.7	12.2	13.4	10.1	10.7	15.0	10.8
EBIT	9.2	21.7	33.3	20.5	22.8	13.2	5.1	7.3	14.6	7.3
Net profit	1.6	21.4	25.0	21.6	28.6	13.0	3.5	5.0	9.8	6.6
QoQ growth (%)										
US\$ revenue	3.7	1.7	(0.5)	2.1	3.1	0.9	(2.7)	4.4	6.0	0.6
Revenue	15.1	0.5	(1.2)	(0.8)	4.5	3.4	(2.8)	7.0	8.9	1.7
EBIT	6.5	14.9	0.7	(2.1)	8.5	5.9	(6.5)	(0.1)	15.8	(0.9)
Net profit	1.4	19.4	4.1	(3.5)	7.3	5.0	(4.7)	(2.2)	12.1	2.0
Margins (%)										
Gross margin	35.3	36.1	37.0	37.0	38.5	38.7	39.1	36.4	37.8	37.2
EBIT	21.9	25.0	25.5	25.1	26.1	26.7	25.7	24.0	25.5	24.9
PAT	18.6	22.1	23.2	22.6	23.2	23.6	23.1	21.1	21.7	21.8
SGA	13.5	11.1	11.5	11.8	12.4	11.9	13.3	12.4	12.3	12.3

Source: Company, Nirmal Bang Institutional Equities Research

Financials

Exhibit 15: Income statement

Y/E March (Rsbn)	FY15	FY16E	FY17E	FY18E	FY19E
Average INR/USD	61.2	65.6	68.1	70.4	71.0
Net Sales (\$mn)	8,714	9,517	10,350	10,741	11,456
-Growth (%)	5.7	9.2	8.8	3.8	6.7
Net Sales	533	625	705	756	813
-Growth (%)	6.4	17.2	12.8	7.2	7.6
Direct Costs	329	393	447	484	524
Gross Margin	204	232	258	272	290
% of sales	38.3	37.2	36.5	36.0	35.6
SG&A	66	77	85	91	96
% of sales	12.4	12.3	12.1	12.0	11.8
EBIT	138	155	172	181	194
% of sales	25.9	24.8	24.4	24.0	23.8
Other income (net)	34	32	35	37	42
PBT	173	187	207	218	235
-PBT margin (%)	32.4	29.9	29.3	28.8	28.9
Provision for tax	49	52	58	59	61
Effective tax rate (%)	28.6	28.0	28.0	27.0	26.0
Net profit	123	134	149	159	174
-Growth (%)	15.8	9.0	10.8	6.8	9.6
-Net profit margin (%)	23.1	21.5	21.1	21.0	21.4

Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 17: Balance sheet

Y/E March (Rsbn)	FY15	FY16E	FY17E	FY18E	FY19E
Equity capital	6	11	11	11	11
Reserves & surplus	542	594	669	748	835
Net worth	548	606	680	760	847
Deferred tax liability	2	3	3	3	3
Other liabilities	0	2	2	2	2
Total loans	-	-	-	-	-
Total liabilities	550	610	684	764	851
Goodwill	31	37	37	37	37
Other intangible assets	6	10	10	10	10
Net block	91	104	119	137	157
Investments	22	21	21	21	21
Deferred tax asset - net	5	5	5	5	5
Other non-current assets	44	59	63	67	72
Unbilled revenue	28	35	37	40	44
Derivative financial instrument	1	1	1	1	1
Other current assets	33	47	50	54	58
Income tax assets-current	-	-	-	-	-
Debtors	97	117	124	135	146
Cash & bank balance	304	315	367	419	475
Total current assets	463	513	578	648	723
Total current liabilities	114	140	150	162	175
Net current assets	349	373	429	486	548
Total assets	550	610	684	764	851

Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 16: Cash flow

Y/E March (Rsbn)	FY15	FY16E	FY17E	FY18E	FY19E
EBIT	138	155	172	181	194
(Inc.)/dec. in working capital	3	(12)	(4)	(5)	(6)
Cash flow from operations	141	143	168	176	188
Other income	34	32	35	37	42
Depreciation & amortisation	13	14	16	17	18
Financial expenses	-	-	-	-	-
Tax paid	(49)	(52)	(58)	(59)	(61)
Dividends paid	(75)	(67)	(74)	(80)	(87)
Net cash from operations	64	69	86	91	99
Capital expenditure	(25)	(27)	(31)	(34)	(38)
Net cash after capex	38	43	55	57	61
Inc./(dec.) in debt	-	-	-	-	-
(Inc.)/dec. in investments	-	-	-	-	-
Cash from financial activities	-	-	-	-	-
Others	6	(31)	(3)	(5)	(5)
Opening cash	260	304	315	367	419
Closing cash	304	315	367	418	475
Change in cash	44	12	52	52	56

Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 18: Key ratios

Y/E March	FY15	FY16E	FY17E	FY18E	FY19E
Per Share (Rs)					
EPS	53.9	58.8	65.2	69.6	76.2
FDEPS	53.9	58.8	65.2	69.6	76.2
Dividend Per Share	22.4	29.4	32.6	34.8	38.1
Dividend Yield (%)	2.0	2.6	2.9	3.0	3.3
Book Value	240	265	298	332	370
Dividend Payout Ratio (incl DT)	41.5	49.9	50.0	50.0	50.0
Return ratios (%)					
RoE	24.1	23.3	23.2	22.1	21.7
RoCE	33.7	32.4	32.2	30.3	29.3
ROIC	64.9	58.8	57.1	55.4	54.4
Turnover Ratios					
Asset Turnover Ratio	0.8	0.8	0.8	0.8	0.8
Debtor Days (incl. unbilled Rev)	85	87	83	83	84
Working Capital Cycle Days	37	36	34	34	34
Valuation ratios (x)					
PER	21.2	19.4	17.5	16.4	15.0
P/BV	4.8	4.3	3.8	3.4	3.1
EV/EBTDA	18.9	16.8	15.1	14.4	13.5
EV/Sales	4.9	4.2	3.7	3.4	3.2
M-cap/Sales	4.9	4.2	3.7	3.4	3.2

Source: Company, Nirmal Bang Institutional Equities Research

Rating track

Date	Rating	Market price (Rs)	Target price (Rs)
13 April 2015	Accumulate	2,229	2,147
27 April 2015	Sell	1,995	1,823
4 June 2015	Sell	2,032	1,823
22 July 2015**	Accumulate	1,116	1,189
7 September 2015	Accumulate	1,074	1,189
14 September 2015	Accumulate	1,091	1,189
13 October 2015	Accumulate	1,122	1,194
8 January 2016	Under Review	1,063	-
14 January 2016	Under Review	1,133	-
14 March 2016	Sell	1,141	1,002

** Post 1:1 bonus issue of shares

Wipro

14 March 2016

Reuters: WIPR.BO; Bloomberg: WPRO IN

Right Person At The Helm At The Wrong Time?

We reinstate the Sell rating on Wipro with March 2017 target price of Rs.498 (8% downside) based on 11.5x FY18E earnings. 11.5x P/E is a 20 % discount to the target P/E multiple accorded to Infosys/TCS. The lowest P/E multiple at which Wipro traded in the past 10 years was 5.8 in 2008-09. The continuing adverse stance on Wipro is based on the view that IT sector's revenue growth and P/E multiple are likely to contract in the base case scenario that we have assumed for the US economy in 2016 and 2017 (see the sector part) which would impact Wipro too. While the new CEO, Mr. Abid Ali Neemuchwalla, has good credentials, we believe he is likely to run into a stormy market environment in the coming 12-24 months which could lead to organic growth being fairly subdued. While recent acquisitions are going to add to growth in FY17, we believe organic growth will be constrained by recent changes in the top management team (besides the weak macro-economic environment). We believe the new team will take about six months to settle down. Some recent top-level exits, we believe, could impact customer relationships in the near term. While new TCV in December 2015 quarter was indicated to be among the highest that Wipro has ever registered, sustenance is required to put the company on a higher growth path. Only consistent and at/above industry rate of organic growth will lead its P/E multiple to converge with that of the leaders.

Will the new CEO help Wipro to turn the tide?: Mr. Neemuchwalla had given his thoughts on the way forward during the December 2015 quarter's conference call. Some of the key focus areas included selling integrated solutions, empowering account management teams, doing consultative selling and greater industrialisation of services. There have also been a number of acquisitions made primarily in the Business Process as a Service or BPaaS area. Technology research firm Gartner defines BPaaS as those services that are sourced from the cloud and constructed for multi-tenancy. These services are often automated, and there is no overtly dedicated labour pool per client. The pricing models are consumption-based or subscription-based. This focus on BPaaS is likely because of Mr. Neemuchwalla's background of having headed the BPO division at TCS and having grown it to about US\$2bn in size.

Energy vertical has been a drag on growth: Low crude oil prices have worked against Wipro in the past few quarters. Wipro has a reasonably large exposure to the energy sector (5 out of its top 11 clients in FY15 were from that segment, which has now been reduced to just 1) and more so from companies based in Europe. The sharp fall in crude oil prices led energy companies to slash their IT spending severely impacting Wipro's growth in this vertical and consequently overall growth (it has likely lost about US\$200mn in revenues on an annualised basis). The sustained fall in crude oil prices is delaying the bottoming out of spending cuts by energy majors. Also, we have seen other players targeting the same vertical. Infosys' acquisition of Noah Consulting, for instance, is an attempt to muscle into a hitherto weak sub-segment of its business.

Leadership turnover possibly impacting growth: Over the past 15 years, Wipro has dropped many balls. Despite being an early mover in a number of service lines like IMS, BPO, R&D services and IT services for telecommunication service providers, Wipro lost market share because of - in our view - higher-than-normal leadership turnover and less-than-satisfactory execution. In the past 15 years, turnover at CEO level has been quite high. RoIC of Wipro has been the poorest among Tier-1 players. We believe its business is more asset-intensive, partly because of the company not being able to squeeze out enough value from its various acquisitions (may be it overpaid) and also partly because it follows a more asset-intensive IMS business. Client mining has been a key issue, despite having one of the widest menu of service offerings. This could be because of problems connected with sales or customer satisfaction (though official company customer satisfaction scores are indicated to be very high).

SELL

Sector: Information Technology

CMP: Rs540

Target price: Rs498

Downside: 8%

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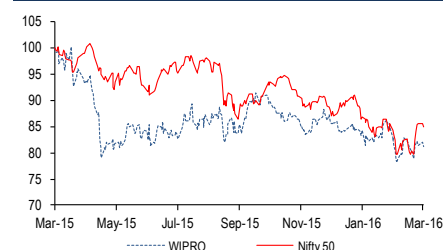
 shubham.gupta@nirmalbang.com
 +91-22-3926 8168

Key Data

Current Shares O/S (mn)	2,470.6
Mkt Cap (Rsbn/US\$bn)	1,331.7/19.8
52 Wk H / L (Rs)	678/508
Daily Vol. (3M NSE Avg.)	1,236,619

Share holding (%)	1QFY16	2QFY16	3QFY16
Promoter	73.4	73.4	73.4
FII	10.7	10.8	11.0
DII	4.9	4.9	4.9
Public	9.5	9.4	9.5
Others	1.5	1.6	1.3

One-Year Indexed Stock



Price Performance (%)

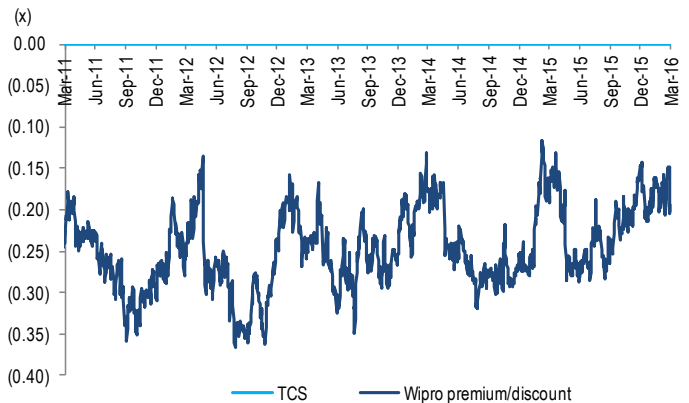
	1 M	6 M	1 Yr
Wipro	4.2	(3.6)	(17.7)
Nifty Index	7.7	(3.6)	(13.7)

Source: Bloomberg

 (Based on 11th March 2016 closing price)

Exhibit 1: P/E Multiples below the long-term average


Source: Company, Nirmal Bang Institutional Equities Research

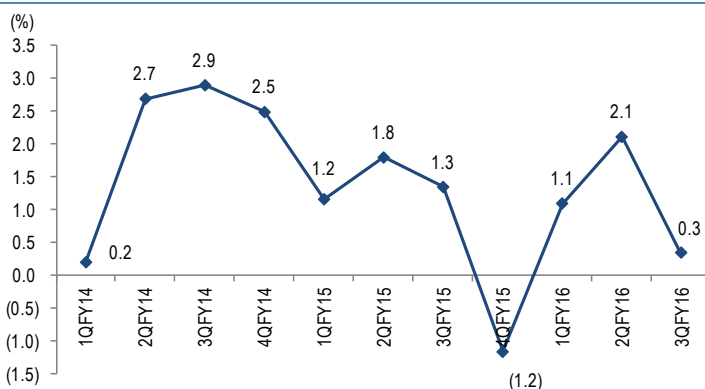
Exhibit 2: Wipro trades at a significant discount to TCS


Source: Company, Nirmal Bang Institutional Equities Research

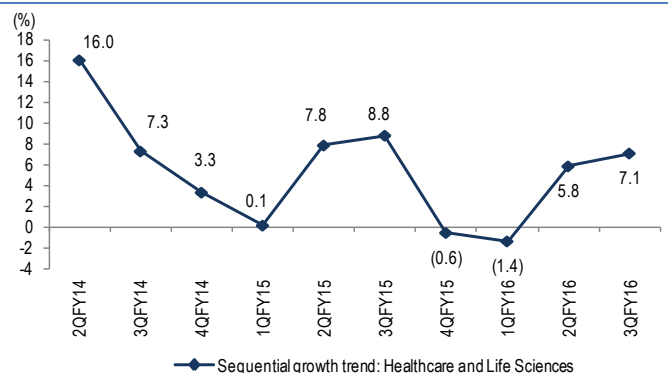
Exhibit 3: 9 Month Performance of Wipro

Y/E March (Rsmn)	9MFY15	9MFY16	YoY (%)
Net sales	3,51,468	3,78,890	7.8
Employee costs	2,38,674	2,60,881	9.3
% of sales	67.9	68.9	-
Other expenditure	41,927	45,824	9.3
% of sales	11.9	12.1	-
EBIT	70,867	72,185	1.9
EBIT margin (%)	20.2	19.1	-
Other income	11,696	13,365	14.3
PBT	82,563	85,550	3.6
Provision for tax	18,369	18,679	1.7
Effective tax rate (%)	22.2	21.8	-
Minority share in profit / loss	(386)	(299)	(22.5)
PAT (reported)	63,808	66,572	4.3
NPM (%)	18.2	17.6	-

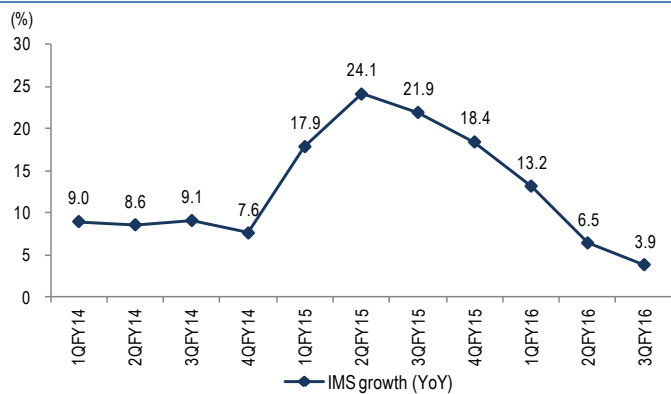
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 4: USD revenue growth (YoY) tapering off


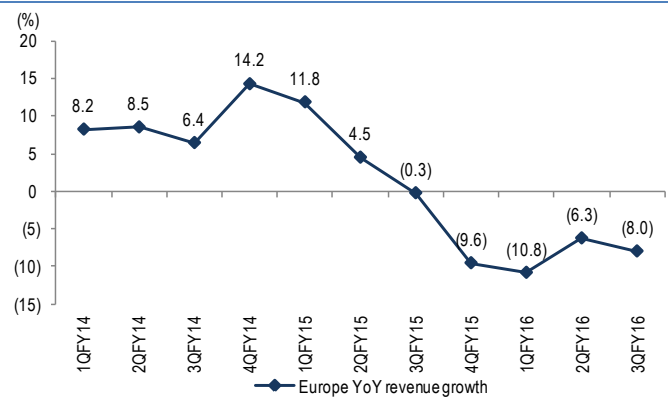
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 5: Healthcare & Life Sciences vertical leads the pack


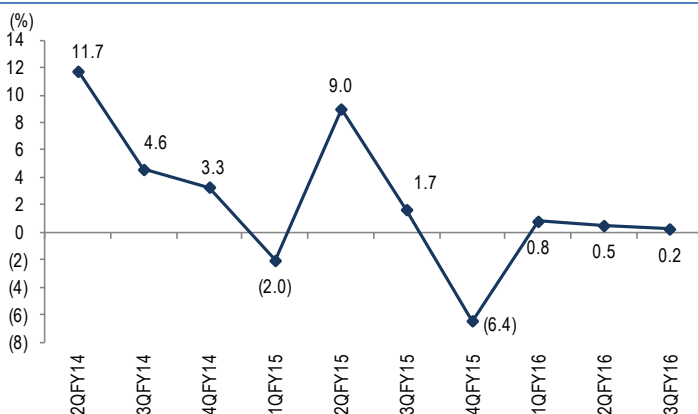
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 6: YoY growth in IMS revenue (USD terms) coming off


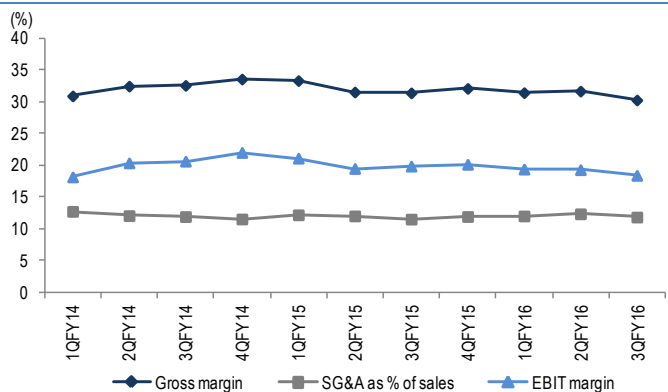
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 7: YoY Europe revenue growth (USD terms) has been disappointing (lack of vertical breadth visible)


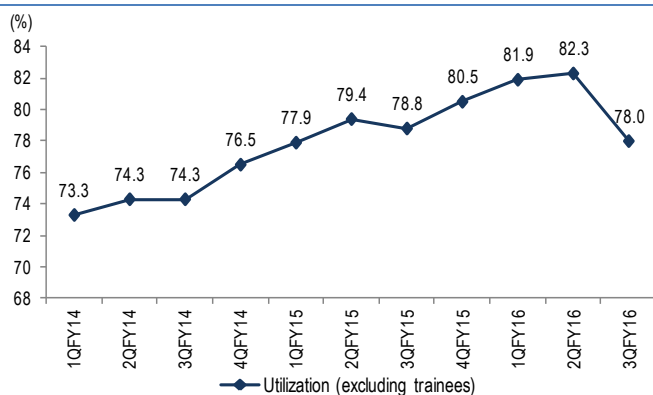
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 8: Energy, Natural Resources and Utilities vertical's growth continues to be lacklustre


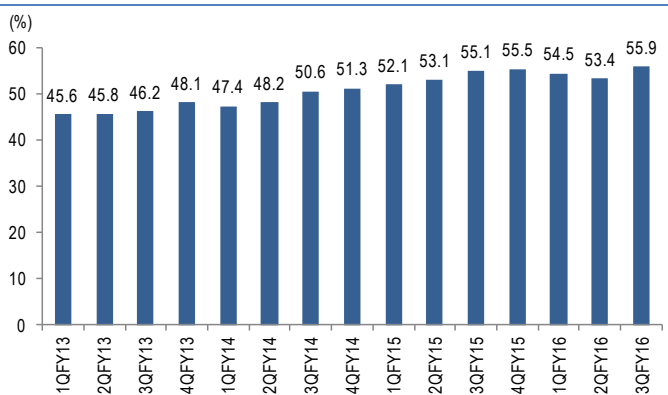
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 9: Gross margin, SG&A expenses and EBIT margin trend - EBIT margin in a narrow band


Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 10: Drop in staff utilization in last quarter was on account of automation and Chennai floods


Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 11: Higher fixed-price engagements' share of revenue


Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 12: Key metrics

	3QFY14	4QFY14	1QFY15	2QFY15	3QFY15	4QFY15	1QFY16	2QFY16	3QFY16
Revenue (US\$m)	1,678	1,720	1,740	1,772	1,795	1,775	1,794	1,832	1,838
EBIT (US\$m)	381	418	394	374	380	396	378	369	356
PAT (US\$m)	327	360	348	338	347	366	345	340	333
P&L (Rsmn)									
Revenue	113,317	117,045	112,456	118,161	120,851	121,714	123,706	125,668	1,29,516
EBITDA	26,527	28,679	26,605	26,137	27,681	27,823	27,075	27,075	27,194
PAT	20,147	22,254	21,032	20,848	21,928	22,720	21,877	22,354	22,341
Vertical mix (%)									
BFSI	26.4	26.8	26.7	26.0	25.7	26.6	26.8	26.8	26.2
HLS	10.6	10.6	10.7	11.1	11.7	11.7	11.2	11.4	12.0
RCTG	14.6	14.5	14.0	13.9	14.1	14.5	15.0	15.0	15.6
ENU	16.1	16.2	16.0	16.8	16.4	15.5	15.2	14.7	14.4
MFG	18.6	18.0	18.2	18.2	18.3	18.3	18.6	18.7	18.4
GMT	13.7	13.9	14.3	13.9	13.8	13.4	13.2	13.4	13.4
Horizontal mix (%)									
Global Infrastructure Services	24.3	24.3	25.5	27.2	27.7	27.9	28.0	28.0	28.1
Technology Infrastructure Services	11.4	11.3	-	-	-	-	-	-	-
Analytics and Information Management	-	-	7.1	7.2	7.0	7.1	7.5	7.5	7.4
Business Application Services	28.4	28.5	50.8	49.4	48.7	48.0	47.5	46.8	46.7
BPO	8.7	9.6	9.7	9.2	9.5	9.4	9.3	9.8	9.8
Product Engineering and Mobility	7.3	7.2	6.9	7.0	7.1	7.6	7.7	7.9	8.0
ADM	19.9	19.1	-	-	-	-	-	-	-
R&D	10.1	9.8	9.5	9.7	9.8	10.2	10.3	10.5	10.4
Consulting	2.4	2.2	2.0	2.0	1.9	1.8	1.7	1.9	1.6
Geographic mix (%)									
US	49.9	50.0	49.8	51.0	51.4	51.7	52.5	53.0	52.8
Europe	29.6	30.0	29.6	27.8	27.6	26.3	25.6	25.2	24.8
India & Middle East	8.5	8.8	9.1	9.2	9.6	10.7	10.6	10.6	11.0
APAC and Other Emerging Markets	12.0	11.2	11.5	12.0	11.4	11.3	11.3	11.2	11.4
Project type									
T&M	49.4	48.7	47.9	46.9	44.9	44.5	45.5	46.6	44.1
Fixed price	50.6	51.3	52.1	53.1	55.1	55.5	54.5	53.4	55.9
Staff utilisation (%) (gross)	66.0	67.7	68.7	70.0	68.5	70.5	71.3	69.5	66.4
Revenue mix-on-site	54.1	54.1	54.4	53.7	54.3	53.7	54.6	53.9	53.8
Revenue mix-offshore	45.9	45.9	45.6	46.3	45.7	46.3	45.4	46.1	46.2
Clients' concentration (%)									
Top client	3.7	3.7	3.7	3.5	3.8	3.8	3.3	3.1	3.2
Top 5 clients	14.2	13.9	13.4	12.9	12.7	12.6	12.2	11.7	11.5
Top 10 clients	23.0	22.6	21.8	21.5	21.0	20.6	20.1	19.8	19.3
Number of clients									
> US\$100mn	11	10	10	10	10	11	10	10	9
> US\$75mn	15	14	14	15	16	15	17	17	17
> US\$50mn	28	29	29	30	31	31	30	31	32
> US\$20mn	80	82	84	85	84	86	86	85	85
>US \$10mn	136	143	143	150	153	150	151	154	154
> US\$5mn	218	220	224	225	226	231	244	244	247
> US\$3mn	280	278	293	292	300	311	314	321	325
> US\$1mn	495	501	511	524	526	542	537	533	536
Employees	146,402	146,053	147,452	154,297	156,866	158,217	161,789	168,396	1,70,664
Attrition (%)	14.3	15.1	17	16.9	16.4	15.6	16.4	16.8	16.3

Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 13: Quarterly snapshot

(Rsmn)	3QFY14	4QFY14	1QFY15	2QFY15	3QFY15	4QFY15	1QFY16	2QFY16	3QFY16
Revenue	113,317	117,045	112,456	118,161	120,851	121,714	123,706	125,668	1,29,516
Gross margin	36,952	39,334	37,515	37,295	37,984	39,105	38,919	39,844	39,246
SGA expenses	13,534	13,535	13,744	14,233	13,950	14,549	14,897	15,555	15,372
EBIT	23,418	25,799	23,771	23,062	24,034	24,556	24,022	24,289	23,874
Other income (net)	2,914	3,117	3,351	4,120	4,225	4,564	3,956	4,605	4,804
PBT	26,332	28,916	27,122	27,182	28,259	29,120	27,978	28,894	28,678
Tax	6,060	6,536	5,942	6,199	6,228	6,255	5,945	6,486	6,248
Minority interest	(125)	(126)	(148)	(135)	(103)	(145)	(156)	(54)	(89)
PAT	20,147	22,254	21,032	20,848	21,928	22,720	21,877	22,354	22,341
YoY growth (%)									
Revenue	2.8	6.1	15.5	7.5	6.6	4.0	10.0	6	7
Gross profit	6.4	15.3	24.5	4.4	2.8	(0.6)	3.7	7	3
EBIT	20.3	40.4	34.3	2.9	2.6	(4.8)	1.1	5	(1)
Net profit	17.4	29.5	29.6	7.9	8.8	2.1	4.0	7	2
QoQ growth (%)									
Revenue	3.1	3.3	(3.9)	5.1	2.3	0.7	1.6	2	3
EBIT	4.4	10.2	(7.9)	(3.0)	4.2	2.2	(2.2)	1	(2)
Net profit	4.3	10.5	(5.5)	(0.9)	5.2	3.6	(3.7)	2	0
Margins (%)									
Gross margin	32.6	33.6	33.4	31.6	31.4	32.1	31.5	31.7	30.3
SGA expenses	11.9	11.6	12.2	12.0	11.5	12.0	12.0	12.4	11.9
EBIT	20.7	22.0	21.1	19.5	19.9	20.2	19.4	19.3	18.4
PAT	17.8	19.0	18.7	17.6	18.1	18.7	17.7	17.8	17.2

Source: Company, Nirmal Bang Institutional Equities Research

Financials

Exhibit 14: Income statement

Y/E March (Rsbn)	FY15	FY16E	FY17E	FY18E	FY19E
Average INR/USD	61.8	65.9	68.1	70.4	71.0
Net Sales (US\$mn)	7,082	7,348	7,897	8,180	8,583
-Growth (%)	7.0	3.8	7.5	3.6	4.9
Net Sales	473	515	567	605	638
-Growth (%)	8.1	8.9	10.0	6.7	5.6
Cost of Sales & Services	321	356	399	427	452
% of sales	67.9	69.0	70.4	70.6	70.8
Gross profit	152	160	168	178	186
% of sales	32.1	31.0	29.6	29.4	29.2
SG&A	56	62	65	66	67
% of sales	11.9	12.0	11.4	10.9	10.5
EBIT	95	98	103	112	119
% of sales	20.2	19.0	18.2	18.5	18.6
Interest expenses	4	6	6	6	6
Other income (net)	20	24	26	31	35
PBT	112	116	123	137	148
-PBT margin (%)	23.6	22.5	21.8	22.6	23.2
Provision for tax	25	25	27	30	33
Effective tax rate (%)	22.0	21.9	22.0	22.0	22.0
Minority Interest	0.5	0.4	0.4	0.4	0.4
Net profit	87	90	96	106	115
-Growth (%)	11.0	4.2	6.2	11.1	8.1
-Net profit margin (%)	18.3	17.5	16.9	17.6	18.0

Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 16: Balance sheet

Y/E March (Rsbn)	FY15	FY16E	FY17E	FY18E	FY19E
Equity capital	5	5	5	5	5
Reserves & surplus	405	459	507	549	595
Net worth	410	464	512	554	600
Deferred tax liability, net	0	-0	-0	-0	-0
Other liabilities	10	15	15	15	15
Total loans	13	16	16	16	16
Total liabilities	433	495	542	585	631
Goodwill	68	75	99	99	99
Other intangible assets	8	8	8	8	8
Net block	54	57	54	50	45
Investments	58	156	156	156	156
Other non-current assets	27	26	26	26	26
Unbilled revenue	42	49	52	56	59
Inventories	5	6	6	6	6
Other current assets	85	102	108	115	121
Debtors	92	104	110	119	125
Cash & bank balance	159	102	118	153	195
Total current assets	383	363	395	449	507
Total current liabilities	164	190	195	203	210
Net current assets	219	173	199	246	297
Total assets	433	495	542	585	631

Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 15: Cash flow

Y/E March (Rsbn)	FY15	FY16E	FY17E	FY18E	FY19E
EBIT	95	98	103	112	119
(Inc.)/dec. in working capital	(37)	(25)	(10)	(12)	(10)
Cash flow from operations	58	73	92	100	109
Other income	20	24	26	31	35
Depreciation & amortisation	13	13	15	16	17
Financial expenses	(4)	(6)	(6)	(6)	(6)
Tax paid	(25)	(25)	(27)	(30)	(33)
Dividends paid	(30)	(36)	(48)	(64)	(69)
Net cash from operations	32	43	53	47	54
Capital expenditure	(8)	(15)	(12)	(12)	(12)
Net cash after capex	24	28	41	35	42
Inc./(dec.) in debt	27	19	-	-	-
(Inc.)/dec. in investments	5	(98)	-	-	-
Equity issue/(buyback)	-	-	-	-	-
Cash from financial activities	33	(79)	-	-	-
Others	(12)	(6)	(24)	-	-
Opening cash	114	159	102	118	153
Closing cash	159	102	119	154	196
Change in cash	45	(57)	17	35	42

Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 17: Key ratios

Y/E March	FY15	FY16E	FY17E	FY18E	FY19E
Per Share (Rs)					
EPS	35.2	36.7	39.0	43.3	46.8
FDEPS	35.1	36.6	38.9	43.2	46.7
Dividend Per Share	12.3	14.7	19.5	26.0	28.1
Dividend Yield (%)	2.3	2.7	3.6	4.8	5.2
Book Value	166.7	188.8	208.3	225.6	244.3
Dividend Payout Ratio	35.0	40.0	50.0	60.0	60.0
Return ratios (%)					
RoE	22.9	20.7	19.6	20.0	19.9
RoCE	19.7	17.6	16.2	15.9	16.2
ROIC	34.3	31.0	28.6	28.5	30.5
Turnover Ratios					
Asset Turnover Ratio	0.8	0.7	0.8	0.8	0.8
Debtor Days (incl. unbilled Rev)	103	108	105	106	106
Working Capital Cycle Days	96	106	103	104	104
Valuation ratios (x)					
PER	15.4	14.7	13.9	12.5	11.6
P/BV	3.2	2.9	2.6	2.4	2.2
EV/EBTDA	12.6	12.0	11.2	10.0	9.1
EV/Sales	2.5	2.3	2.0	1.9	1.7
M-cap/Sales	2.8	2.6	2.3	2.2	2.1

Source: Company, Nirmal Bang Institutional Equities Research

Rating track

Date	Rating	Market price (Rs)	Target price (Rs)
13 April 2015	Sell	618	576
22 April 2015	Sell	588	546
24 July 2015	Sell	588	548
30 September 2015	Sell	587	546
23 October 2015	Sell	578	544
8 January 2016	Under Review	556	-
19 January 2016	Under Review	549	-
14 March 2016	Sell	540	498

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HCL Technologies

14 March 2016

Reuters: HCLT.BO; Bloomberg: HCLT IN

A Competitive IMS Turf Will Make Life difficult

We reinstate rating for HCL Technologies (HCLT) with a Sell (from Buy earlier) with a March 2017 target price of Rs737 (downside of 11%) which is based on 11.5x FY18E EPS. 11.5x is not very pessimistic in the context of its lowest P/E in the past 10 years of 4.7 (during 2008-09). Our change in stance on HCLT is based on the view that IT sector's revenue growth and P/E multiple are likely to contract in the base-case scenario that we have assumed for the US economy in 2016 and 2017 (see the sector part). We have arrived at 11.5x target P/E multiple for HCLT based on a 20% discount (expanded from 10%) to TCS' and Infosys' target P/E multiple of 14.4x. We have expanded the discount as we believe that the competitive intensity in IMS (36% of HCLT revenues and one of its key drivers of growth) is increasing with hitherto weak players like Infosys improving their large deal win rate. This will constrain growth and margin expansion. HCLT's strategy to focus on what was then a relatively uncontested and unattractive IMS space about 10 years back had paid off well with the company reporting 17.1% revenue CAGR over FY10-FY15 (and IMS growing at 29%). There has been a strengthening of IMS capability by a number of players (both large-cap as well as mid-cap) over the past few years attracted by the large opportunity. We believe this intrusion by other players on to HCLT's turf will make it take up more complex, risky and possibly margin-dilutive deals to hold on to its market share. Recent deal structures indicate this. There has been a continuous downward reset in earnings expectations in the past few quarters, driven by disappointing sales and margins. Although HCLT has been reporting more than US\$1bn in TCV for the past several quarters, it needs to improve the TCV figure to grow at industry-leading rate (on a large base). Product engineering remains a strong area for the company and is relatively less contested. We also believe that HCLT has been behind the curve in its investments in 'Digital' with serious investments starting only in 2015, in our view.

Rising competitive intensity around large deals: With heightened use (as well as anticipation of use) of automation tools, some India-based players are committing substantial productivity gains (20%-40%) to customers on large deals in commoditised service lines such as IMS, BPS, AMS, testing, etc. The rising intensity will lead to not only compression in deal values, but also a challenge for HCLT to maintain its win rate. While HCLT, from what we understand has been an early adopter of automation in IMS, we believe the level of automation that is being worked on right now by peers (some of whom have been late starters) is a few notches above. Players like Infosys have turned aggressive with their 'pricing-to-win' strategy wherein the attempt is to first bag the contract and then try to work the costs down and drive margin up during the course of the life of the contract. This involves a higher level of automation that will be employed in the second-half of the contract.

Volvo could be growth driver in FY17, but margin-dilutive initially - sign of things to come: HCLT has signed a deal with Volvo Group (of Sweden) to not only buy its external IT business (with annualised revenue run-rate of US\$190mn) but also get the IMS piece of Volvo itself. The deal was closed in the JFM 2016 quarter and revenues are likely to be booked in AMJ 2016 quarter. The deal involves rebadging of 2,600 Volvo employees. While the deal could be a revenue driver in FY17, it is likely to be margin-dilutive in the initial phase. This, in our view, represents the kind of complex large orders that HCLT will have to win.

Looks like it is behind the curve in 'Digital': From the looks of it, HCLT is more a horizontal skills-driven company rather than a vertical knowledge-driven company or a company that has a balanced combination of vertical and horizontal skills. To that extent we believe it is not likely to be part of the ideation/collaboration process in a 'Digital' contract at the front-end. It is more likely to be involved in IT modernisation part which involves connecting the front-end to legacy back-end. We believe HCLT is at a slight disadvantage against players like Accenture or Cognizant who bring consulting as well as outsourcing skills to the table.

SELL

Sector: Information Technology

CMP: Rs824

Target price: Rs737

Downside: 11%

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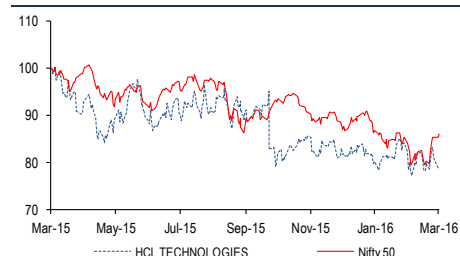
+91-22-3926 8168

Key Data

Current Shares O/S (mn)	1,410.0
Mkt Cap (Rsbn/US\$bn)	1,160.5/17.3
52 Wk H / L (Rs)	1,058/785
Daily Vol. (3M NSE Avg.)	1,378,221

Share holding (%)	1QFY16	2QFY16	3QFY16
Promoter	57.7	57.8	58.3
FII	28.9	28.3	27.6
DII	3.5	3.9	4.0
Public	6.0	6.1	6.1
Others	4.0	4.4	4.4

One-Year Indexed Stock

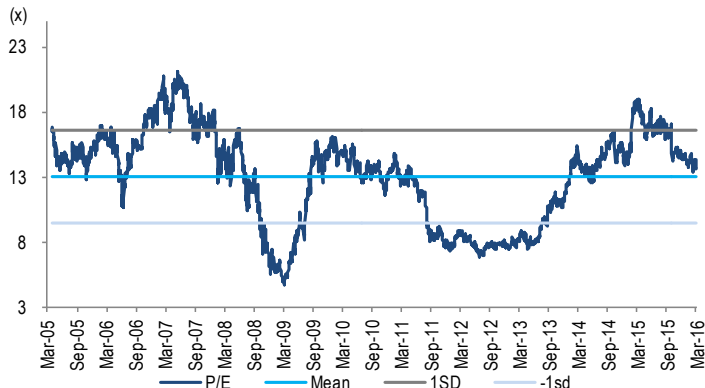
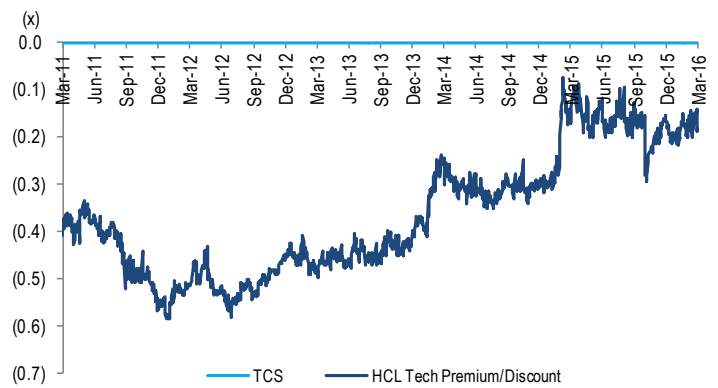


Price Performance (%)

	1 M	6 M	1 Yr
HCL Technologies	1.9	(10.6)	(20.1)
Nifty Index	7.7	(3.6)	(13.7)

Source: Bloomberg

(Based on 11th March 2016 closing price)

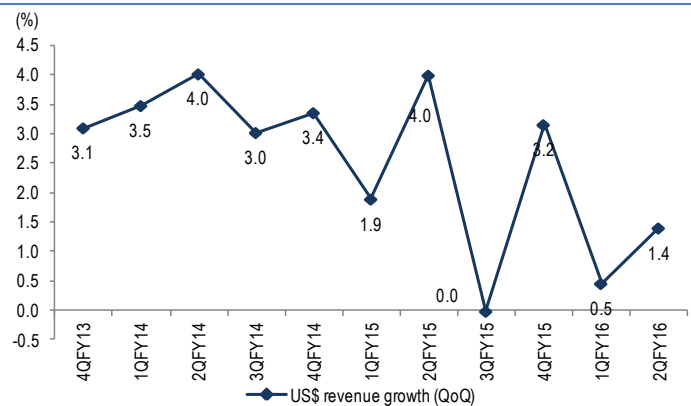
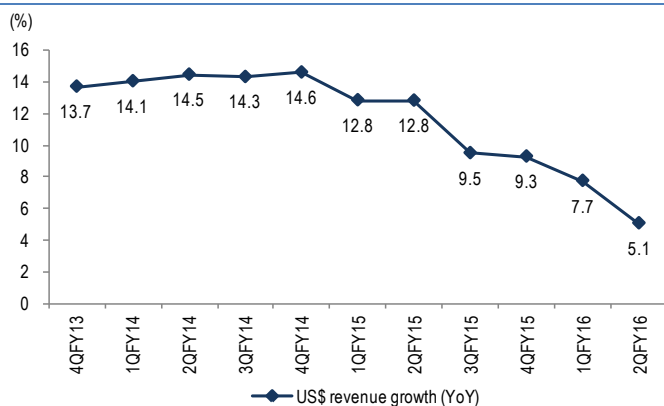
Exhibit 1: P/E Multiple reverting to long-term average

Exhibit 2: P/E discount of HCLT with respect to TCS


Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 3: Half-yearly financial summary

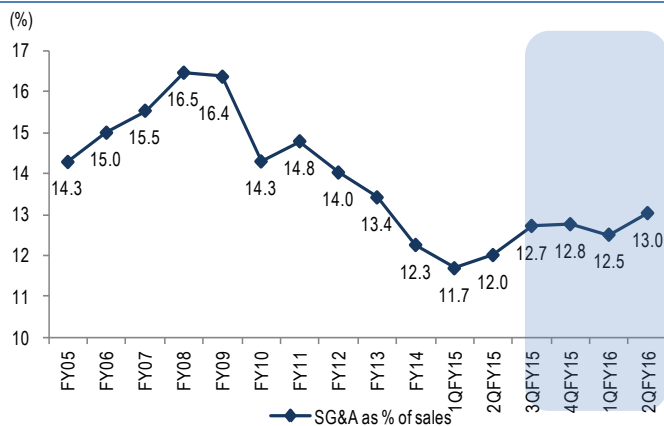
Y/E June (Rsmn)	1H FY15	1H FY16	YoY (%)
Net sales	1,80,180	2,04,380	13.4
Employee costs	1,13,710	1,33,910	17.8
% of sales	63.1	65.5	-
SG&A expenses	21,360	26,110	22.2
% of sales	11.9	12.8	-
EBIT	42,980	41,480	(3.5)
EBIT margin (%)	23.9	20.3	-
Other income	5,590	5,630	0.7
Forex gain/(loss)	(380)	330	(186.8)
PBT	48,190	47,440	(1.6)
Provision for tax	10,290	10,020	(2.6)
Effective tax rate	21.4	21.1	-
Minority share in profit / loss	1	0	-
PAT (reported)	37,900	37,420	(1.3)
NPM (%)	21.0	18.3	-

Source: Company, Nirmal Bang Institutional Equities

Exhibit 4: USD revenue growth (YoY) tapering off


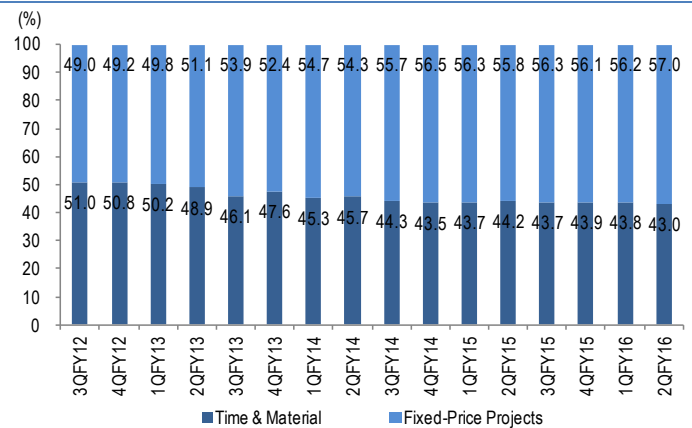
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 5: SG&A spending as a percentage of revenue has been high



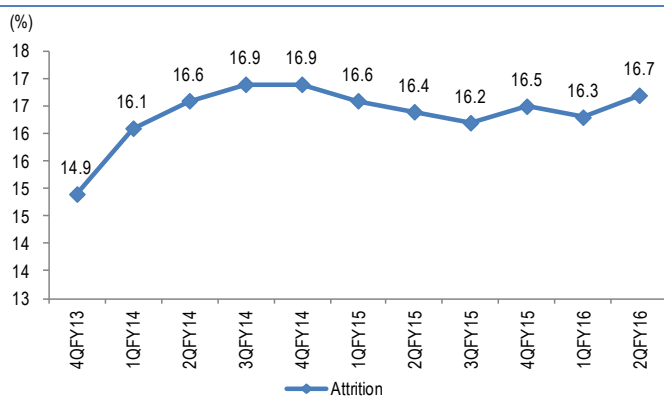
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 6: Fixed-price contracts account for a larger part of revenue over time



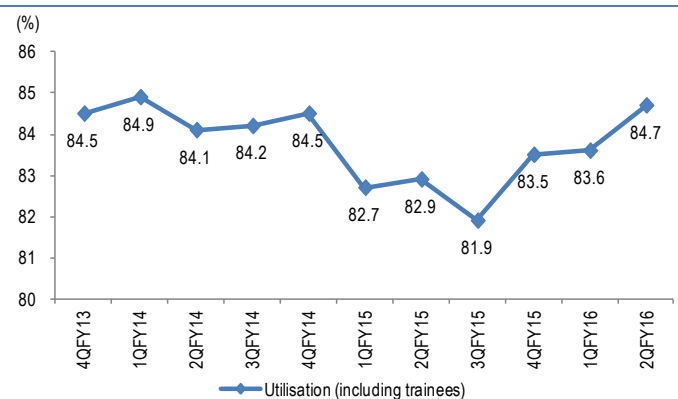
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 7: High attrition rate remains sticky



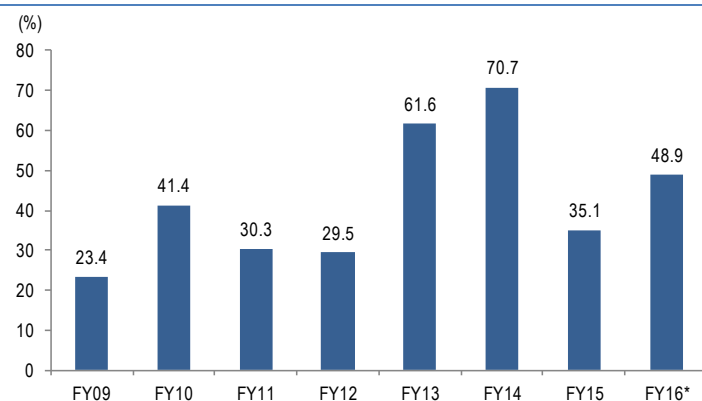
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 8: Staff utilisation rate (including trainees) has picked up



Source: Company, Nirmal Bang Institutional Equities Research

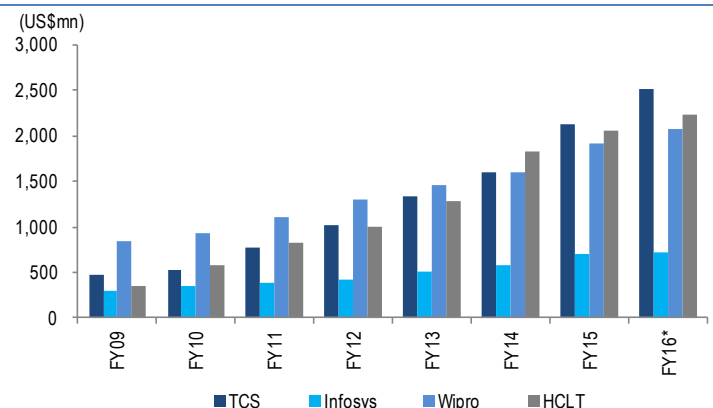
Exhibit 9: Contribution of IMS to incremental revenue



Source: Company, Nirmal Bang Institutional Equities Research

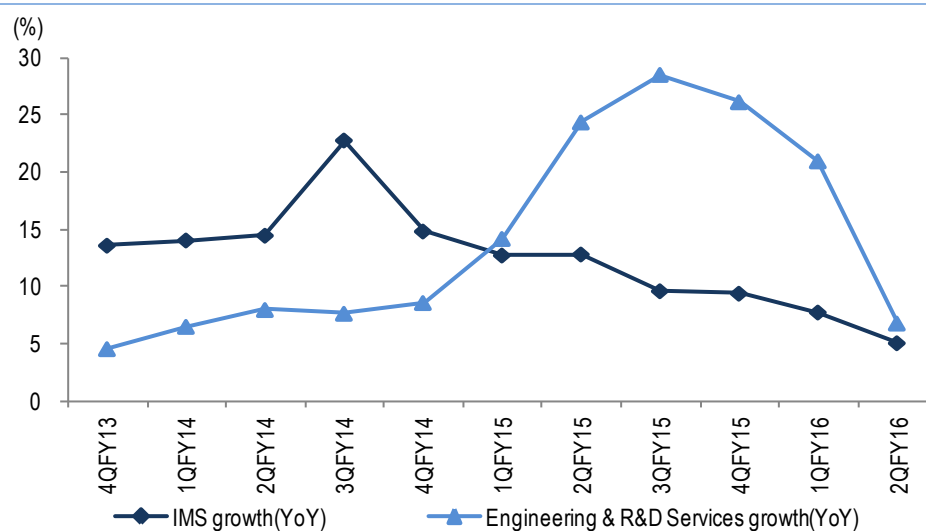
*Note: 1H FY16

Exhibit 10: IMS revenue comparison



Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 11: Growth in Engineering and R&D services and IMS – 2 growth drivers – coming off (YoY) (USD terms)



Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 12: Key metrics

	2QFY14	3QFY14	4QFY14	1QFY15	2QFY15	3QFY15	4QFY15	1QFY16	2QFY16
Revenue (US\$mn)	1,321	1,361	1,407	1,433	1,491	1,491	1,538	1,545	1,566
EBIT (US\$mn)	313	335	341	342	355	318	309	299	314
PAT (US\$mn)	242	264	305	307	308	270	279	264	291
P&L (Rsmn)									
Revenue	81,840	83,490	84,240	87,350	92,830	92,670	97,770	100,970	1,03,410
EBITDA	21,250	22,320	22,170	21,920	23,190	20,910	21,000	22,110	22,250
PAT	14,950	16,240	18,360	18,740	19,160	16,830	17,820	18,230	19,190
Vertical mix (%)									
BFSI	25.9	26.9	28.4	28.2	26.6	26.1	26.0	26.1	25.9
Hi-tech - manufacturing	33.7	33.3	31.6	32.3	32.9	33.4	32.7	32.5	31.5
Telecom, media publishing & entertainment	8.9	8.4	8.9	8.7	8.4	9.0	9.5	9.6	9.7
Retail & CPG	8.6	8.5	8.5	9.5	9.7	8.4	8.8	8.8	9.5
Life sciences	10.8	10.4	10.2	9.8	11.1	11.2	12.0	12.4	12.2
Energy utilities-public sector	9.2	10.1	10.1	9.3	9.5	10.4	9.7	10.0	10.6
Others	3.1	2.3	2.3	2.2	1.8	1.5	1.3	0.6	0.6
Service mix (%)									
Engineering and R&D Services	16.6	16.1	16.2	17.1	18.3	18.9	18.7	19.2	18.6
Application services	45.1	44.9	44.2	43.4	42.4	41.5	40.9	40.4	40.4
Infrastructure Services	33.7	34.4	34.5	34.5	34.4	34.5	35.3	35.1	35.5
BPO Services	4.6	4.5	5.1	5.0	4.9	5.1	5.2	5.3	5.5
Geographical mix (%)									
US	56.9	55.4	54.3	56.3	57.4	57.5	58.6	58.7	61
Europe	31.3	31.8	33.0	32.3	31.7	31.0	30.4	31.7	29.9
Asia-Pacific	11.8	12.8	12.7	11.4	10.9	11.5	11.0	9.6	9.1
Project type									
T&M	45.7	44.3	43.5	43.7	44.2	43.7	43.9	43.8	43.0
Fixed-price	54.3	55.7	56.5	56.3	55.8	56.3	56.1	56.2	57.0
Utilisation (%) (including trainees)	84.1	84.2	84.5	82.7	82.9	81.9	83.5	83.6	84.7
Client concentration (%)									
Top 5 clients	14.8	15.0	14.7	14.4	14.0	13.5	13.2	13.6	13.6
Top 10 clients	23.8	24.1	23.7	23.1	22.3	21.8	21.7	21.9	21.7
Top 20 clients	33.6	34.2	33.7	33.0	32.4	32.2	32.4	32.4	32.4
Number of clients									
No. of US\$1mn clients	427	432	429	428	450	468	476	486	494
No. of US\$5mn clients	183	183	187	193	205	206	211	224	227
No. of US\$10mn clients	107	109	114	115	121	122	124	133	140
No. of US\$20mn clients	61	64	67	67	69	73	73	75	74
No. of US\$30mn clients	30	32	37	37	37	38	40	43	42
No. of US\$40mn clients	18	18	18	20	22	22	23	24	26
No. of US\$50mn clients	12	14	15	15	16	17	17	18	19
No. of US\$100mn clients	6	6	6	7	7	7	7	7	7
Employees	88,332	90,190	91,691	95,522	100,240	104,184	106,107	105,571	1,03,696
Attrition (%)	16.6	16.9	16.9	16.6	16.4	16.2	16.5	16.3	16.7

Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 13: Quarterly snapshot

(Rsmn)	1QFY14	2QFY14	3QFY14	4QFY14	1QFY15	2QFY15	3QFY15	4QFY15	1QFY16	2QFY16
Revenue	79,610	81,840	83,490	84,240	87,350	92,830	92,670	97,770	100,970	103,410
Gross margin	31,030	31,440	32,460	32,090	32,130	34,340	32,700	33,480	34,740	35,730
EBITDA	20,930	21,250	22,320	22,170	21,920	23,190	20,910	21,000	22,110	22,250
EBIT	18,950	19,400	20,600	20,400	20,880	22,100	19,770	19,760	20,760	20,720
Other income	(1,200)	(470)	(70)	1,580	3,050	2,160	1,790	2,120	2,410	3,550
PBT	17,750	18,930	20,530	21,980	23,930	24,260	21,560	21,880	23,170	24,270
Tax	3,590	3,980	4,290	3,620	5,190	5,100	4,730	4,060	4,940	5,080
PAT	14,162	14,950	16,241	18,361	18,741	19,160	16,830	17,820	18,230	19,190
EPS	10.0	10.6	11.5	13.0	13.3	13.6	11.9	12.6	12.9	13.6
YoY growth (%)										
Revenue	30.7	30.4	30.0	20.7	9.7	13.4	11.0	16.1	15.6	11.4
Gross profit	44.6	39.9	40.4	25.6	3.5	9.2	0.7	4.3	8.1	4.0
EBITDA	54.9	52.4	55.1	37.3	4.7	9.1	(6.3)	(5.3)	0.9	(4.1)
Net profit	60.1	58.4	56.2	54.1	32.3	28.2	3.6	(2.9)	(2.7)	0.2
QoQ growth (%)										
Revenue	14.1	2.8	2.0	0.9	3.7	6.3	(0.2)	5.5	3.3	2.4
EBITDA	29.6	1.5	5.0	(0.7)	(1.1)	5.8	(9.8)	0.4	5.3	0.6
Net profit	18.8	5.6	8.6	13.1	2.1	2.2	(12.2)	5.9	2.3	5.3
Margins (%)										
Gross margin	39.0	38.4	38.9	38.1	36.8	37.0	35.3	34.2	34.4	34.6
EBITDA	26.3	26.0	26.7	26.3	25.1	25.0	22.6	21.5	21.9	21.5
EBIT	23.8	23.7	24.7	24.2	23.9	23.8	21.3	20.2	20.6	20.0
PAT	17.8	18.3	19.5	21.8	21.5	20.6	18.2	18.2	18.1	18.6
SGA	12.7	12.5	12.1	11.8	11.7	12.0	12.7	12.8	12.5	13.0

Source: Company, Nirmal Bang Institutional Equities Research

Financials

Exhibit 14: Income statement

Y/E June (Rsmn)	FY15	FY16E	FY17E	FY18E	FY19E
Average INR/USD	62.4	66.6	68.6	70.9	71.0
Net Sales (US\$mn)	5,952	6,451	7,053	7,336	7,815
-Growth (%)	11.1	8.4	9.3	4.0	6.5
Net Sales	3,70,62	4,29,143	4,83,862	5,19,765	5,54,857
-Growth (%)	12.6	15.8	12.8	7.4	6.8
Cost of Sales & Services	2,37,97	2,81,893	3,21,584	3,48,027	3,67,368
Gross Margin	1,32,65	1,47,250	1,62,279	1,71,738	1,87,488
% of sales	35.8	34.3	33.5	33.0	33.8
SG&A	45,630	54,579	60,251	63,480	67,850
% of sales	12.3	12.7	12.5	12.2	12.2
EBITDA	87,020	92,671	1,02,028	1,08,258	1,19,639
% of sales	23.5	21.6	21.1	20.8	21.6
Depreciation	4,510	5,660	5,957	6,485	7,013
EBIT	82,510	87,011	96,071	1,01,773	1,12,626
% of sales	22.3	20.3	19.9	19.6	20.3
Other income (net) (incl forex)	9,120	10,838	12,513	16,422	20,637
PBT	91,630	97,849	1,08,584	1,18,195	1,33,262
Provision for tax	19,080	21,110	23,888	26,003	29,318
Effective tax rate (%)	20.8	21.6	22.0	22.0	22.0
Minority Interest	1	0	0	0	0
Net profit	72,551	76,739	84,695	92,192	1,03,945
-Growth (%)	13.9	5.8	10.4	8.9	12.7
-Net profit margin (%)	19.6	17.9	17.5	17.7	18.7

Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 16: Balance sheet

Y/E June (Rsmn)	FY15	FY16E	FY17E	FY18E	FY19E
Equity capital	1,400	1,400	1,400	1,400	1,400
Reserves & surplus	2,46,110	2,96,172	3,52,715	4,13,939	4,84,100
Net worth	2,47,510	2,97,572	3,54,115	4,15,339	4,85,500
Other liabilities	12,590	16,223	16,951	18,568	20,097
Total loans	4,690	1,597	1,597	1,597	1,597
Total liabilities	2,64,790	3,15,392	3,72,662	4,35,504	5,07,195
Intangible assets	52,040	57,457	57,457	57,457	57,457
Net block	38,200	41,221	45,089	48,957	52,825
Investments	80	1,633	1,633	1,633	1,633
Other non-current assets	30,660	35,923	37,533	41,114	44,501
Debtors	94,840	1,12,403	1,17,443	1,28,648	1,39,246
Cash & bank balance	13,520	8,223	8,223	8,223	8,223
Other current assets	1,27,750	1,65,141	2,16,673	2,71,487	3,35,377
Total current assets	2,36,110	2,85,767	3,42,339	4,08,359	4,82,847
Total current liabilities	92,300	1,06,609	1,11,389	1,22,017	1,32,069
Net current assets	1,43,810	1,79,158	2,30,950	2,86,342	3,50,778
Total assets	2,64,790	3,15,392	3,72,662	4,35,504	5,07,195

Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 15: Cash flow

Y/E June (Rsmn)	FY15	FY16E	FY17E	FY18E	FY19E
EBIT	82,510	87,011	96,071	1,01,773	1,12,626
(Inc.)/dec. in working capital	(9,557)	(8,844)	(1,559)	(3,465)	(3,278)
Cash flow from operations	72,953	78,167	94,512	98,307	1,09,348
Other income	9,120	10,838	12,513	16,422	20,637
Depreciation & amortisation	4,510	5,660	5,957	6,485	7,013
Tax paid	(19,080)	(21,110)	(23,888)	(26,003)	(29,318)
Dividends paid	(22,463)	(27,441)	(28,153)	(30,968)	(33,783)
Net cash from operations	45,040	46,114	60,941	64,243	73,897
Capital expenditure	(11,240)	(8,682)	(9,825)	(10,353)	(10,881)
Net cash after capex	33,800	37,432	51,116	53,891	63,016
Inc./(dec.) in debt	(2,817)	(3,093)	-	-	-
(Inc.)/dec. in investments	(20,200)	(38,599)	(51,843)	(55,508)	(64,545)
Equity issue/(buyback)	-	-	-	-	-
Cash from financial activities	(40,137)	(34,975)	(33,945)	(37,586)	(37,094)
Others	9,647	(7,754)	(17,171)	(16,305)	(25,922)
Opening cash	10,210	13,520	8,223	8,223	8,223
Closing cash	13,520	8,223	8,223	8,223	8,223
Change in cash	3,310	(5,297)	-	-	-

Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 17: Key ratios

Y/E June	FY15	FY16E	FY17E	FY18E	FY19E
Per share (Rs)					
EPS	51.7	54.5	60.2	65.5	73.8
FDEPS	51.4	54.4	60.0	65.3	73.6
Dividend Per Share	16.0	19.5	20.0	22.0	24.0
Dividend Yield (%)	1.9	2.4	2.4	2.7	2.9
Book Value	176	211	252	295	345
Dividend Payout Ratio (excl DDT)	31.0	35.8	33.2	33.6	32.5
Return ratios (%)					
RoE	32.4	28.2	26.0	24.0	23.1
RoCE	33.8	30.0	27.9	25.2	23.9
ROIC	61.2	54.7	55.0	55.5	58.0
Turnover Ratios					
Asset Turnover Ratio	1.0	1.0	1.0	0.9	0.9
Debtor Days (incl. unbilled Rev)	93	96	89	90	0
Working Capital Cycle Days	26	30	27	28	28
Valuation ratios (x)					
PER	15.9	15.1	13.7	12.6	11.2
P/BV	4.7	3.9	3.3	2.8	2.4
EV/EBTDA	12.1	11.0	9.5	8.5	7.2
EV/Sales	2.8	2.4	2.0	1.8	1.6
M-cap/Sales	3.1	2.7	2.4	2.2	2.1

Source: Company, Nirmal Bang Institutional Equities Research

Rating track

Date	Rating	Market price (Rs)	Target price (Rs)
13 April 2015	Accumulate	959	1,013
22 April 2015	Accumulate	895	1,014
4 August 2015	Accumulate	938	1,008
1 October 2015	Accumulate	982	991
5 October 2015	Accumulate	859	991
20 October 2015	Buy	859	989
8 January 2016	Under Review	828	-
20 January 2016	Under Review	841	-
14 March 2016	Sell	824	737

Tech Mahindra

14 March 2016

Reuters: TEML.BO; Bloomberg: TECHM IN

Growth Is A Problem Even Without Global Slowdown

We reinstate our Sell rating on TECH MAHINDRA (TML) with a March 2017 target price of Rs395 (downside of 14%) valuing the stock at 10.8x FY18E EPS (25% discount to the target P/E of TCS/Infosys). TML has significantly underperformed its peers over the past 12 months following a sharp slowdown in organic revenue growth coupled with a steep margin compression. A significant number of its large clients in the telecom vertical are caught up in M&A activity, which is leading to delayed decision-making and low deal flow, as per TML's management. We believe that TML's capabilities are underdeveloped in 'Digital' and in Automation/Industrialisation of services and that it will find it hard to hold on to its market share (profitably) in the Telecom service provider space in post M&A vendor consolidation phase. This means that it will continue to underperform in terms of organic revenue growth. While on the enterprise side its performance has been better than our expectation so far in FY16, it is likely to face a tough macro-economic environment in 2015-17, which will test this relatively nascent business. Here it will be up against India-based incumbents with very high competitive moats in terms of industry platforms, large pool of domain experts, and a bank of reusable code and automation tools.

Slow decision-making cycle among TSPs restricting growth: TML derives ~50%-55% of its revenues from the communication vertical, with more than five of its top 10 customers coming from this space. Developed market telecom service providers (TSPs) are going through a consolidation phase, which is delaying decision-making. Moreover, as per the management, TSPs seem to be taking time to deliberate on technology and solutions that are needed to solve some of their problems, which could potentially change the scope and size of the projects negatively. Lastly, there was a substantial slowdown in network services spending in CY15 – an area of thrust for TML (for which it acquired LCC). The management expects the Telecom vertical to remain subdued in 1HCY16.

Certain capabilities not as well developed as in its peers: It is surprising that some of the other Indian as well foreign IT services players have shown growth in communication vertical over the past few quarters whereas TML, despite having a strong foothold in this space (>180 customers), has been languishing. We believe that others are probably bidding aggressively on the back of their automation and platform capabilities, which we believe TML has been behind-the-curve in developing. Moreover, as the M&A situation starts resolving with IT spending making a comeback, the customers will start consolidating their vendors to squeeze out costs. Owing to the lack of well developed automation and digital capabilities, in our view, TML is possibly not well placed to hold on to its market share in TSP space (at least profitably). We believe Accenture, with its very strong capabilities in 'Digital' (consulting being its forte) and equally strong offshore IT services capabilities will take a lion's share of the business. TCS will also be a player to reckon with.

Slowdown in global growth will exert pressure on enterprise growth: TML derives the other half of its revenues from enterprise services (includes Manufacturing, BFSI, TME, and RTL). We are expecting a slowdown in the US/global economy in the next one to two years and we believe that TML, being a relatively new entrant, will be pressured. This business is already very competitive and has India-based incumbents with very high competitive moats in terms of industry platforms, large pool of domain experts, reusable code and automation tools.

Margin recovery seems far off: TML witnessed a steep margin contraction in the past two years on account of a number of margin-dilutive acquisitions as well as slowdown of growth in TSP space. TML has already used up some of the margin levers such as employee utilisation. The margin upside can come only from improved margins of acquired entities as well as use of automation capabilities. But we think that improvement here will be very slow. We believe EBIT margin will continue to remain at current depressed level for some more time.

SELL

Sector: Information Technology

CMP: Rs459

Target price: Rs395

Downside: 14%

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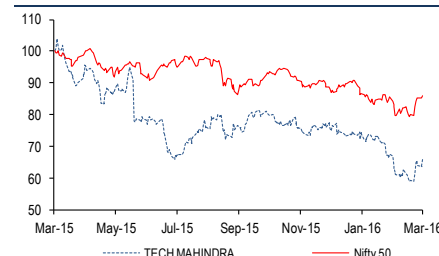
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Key Data

Current Shares O/S (mn)	967.4
Mkt Cap (Rsbn/US\$bn)	443.1/6.6
52 Wk H / L (Rs)	736/407
Daily Vol. (3M NSE Avg.)	1,740,379

Share holding (%)	1QFY16	2QFY16	3QFY16
Promoter	36.7	36.6	36.5
FII	34.3	32.8	32.1
DII	13.8	16.3	15.5
Public	15.2	14.3	14.5
Others	0	0	1.4

One-Year Indexed Stock

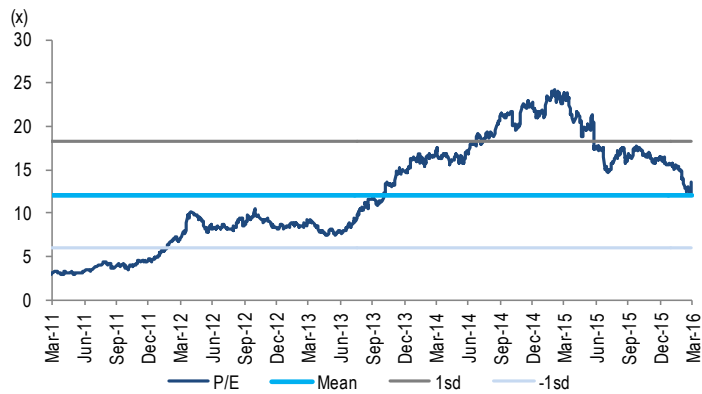
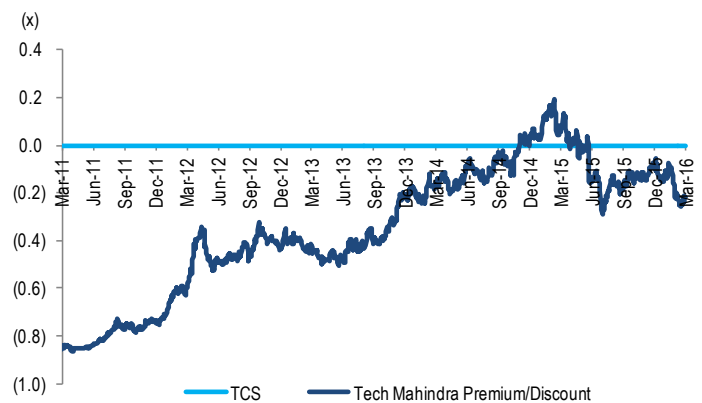


Price Performance (%)

	1 M	6 M	1 Yr
Tech Mahindra	6.0	(12.8)	(37.3)
Nifty Index	7.7	(3.6)	(13.7)

Source: Bloomberg

 (Based on 11th March 2016 closing price)

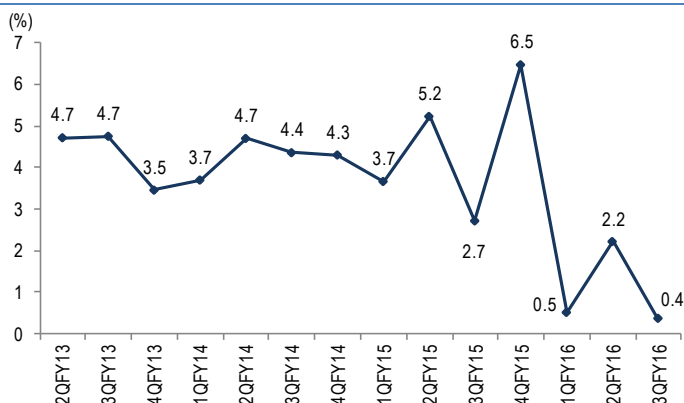
Exhibit 1: P/E multiple of TML trading at long-term average

Exhibit 2: P/E discount of TML with respect to TCS


Source: Company, Nirmal Bang Institutional Equities Research

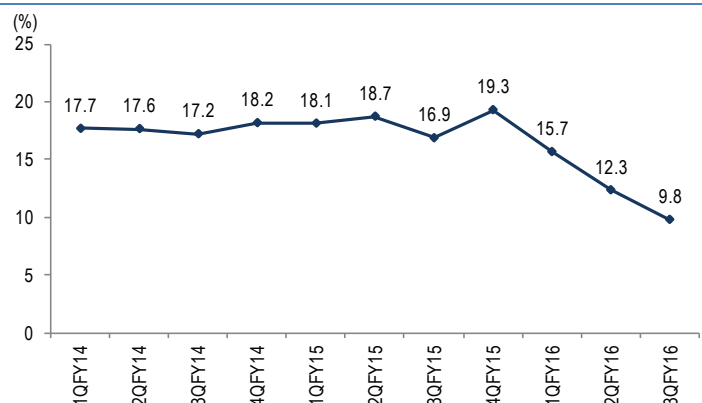
Exhibit 3: YoY Growth over nine-month period

Y/E March (Rsmn)	9MFY15	9MFY16	YoY (%)
Net sales	1,63,611	1,96,104	19.9
Direct costs	1,08,208	1,35,528	25.2
% of sales	66.1	69.1	-
SG&A expenses	23,545	28,853	22.5
% of sales	14.4	14.7	-
EBITDA	31,858	31,723	(0.4)
Depreciation & amortisation	4,358	5,443	24.9
EBIT	27,500	26,280	(4.4)
EBIT margin	16.8	13.4	-
Interest costs	120	541	350.6
Other income	1,659	3,663	120.8
PBT	29,039	29,402	1.3
Exceptional item (as reported)	285	14	(95.1)
Provision for tax	7,627	7,029	(7.8)
-effective tax rate	26.3	23.9	-
Minority share in profit / loss	140	177	26.4
PAT (reported)	21,557	22,210	3.0
Exceptional item (adj-post tax)	285	14	(95.1)
PAT (adjusted)	21,842	22,224	1.7
NPM (%)	13.3	11.3	-

Source: Company, Nirmal Bang Institutional Equities Research

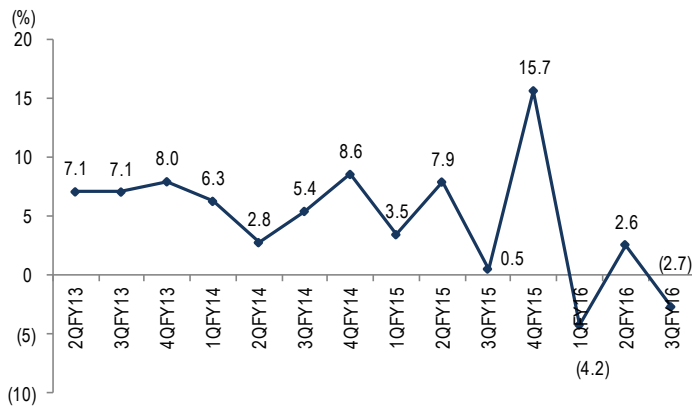
Exhibit 4: QoQ USD Revenue Growth


Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 5: YoY USD Revenue Growth coming off


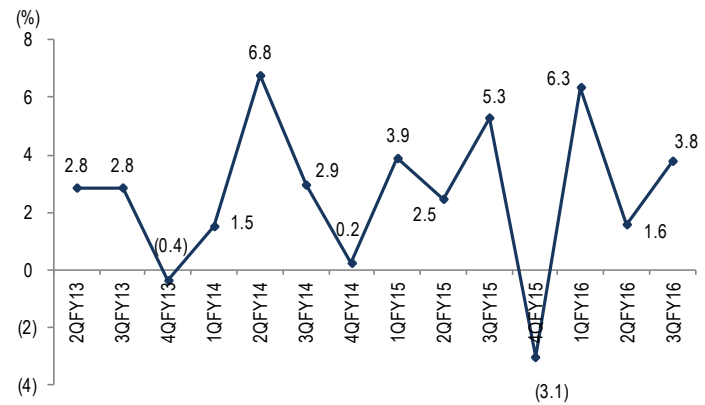
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 6: QoQ Growth in Communications vertical has been dismal for the last three quarters



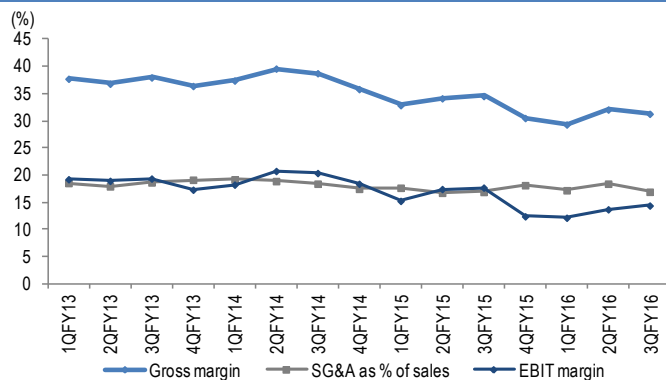
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 7: QoQ Growth in Enterprise vertical



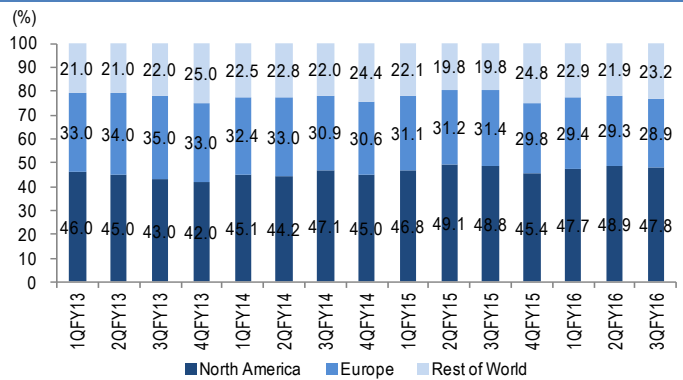
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 8: Gross and EBIT Margins have come off significantly over the last two years



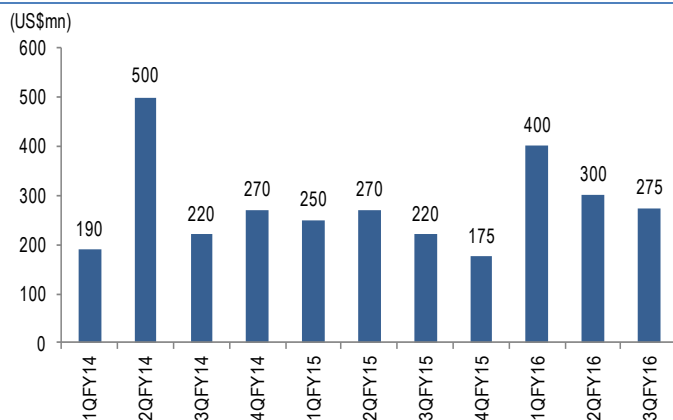
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 9: ROW was the main driver of revenue growth in last quarter



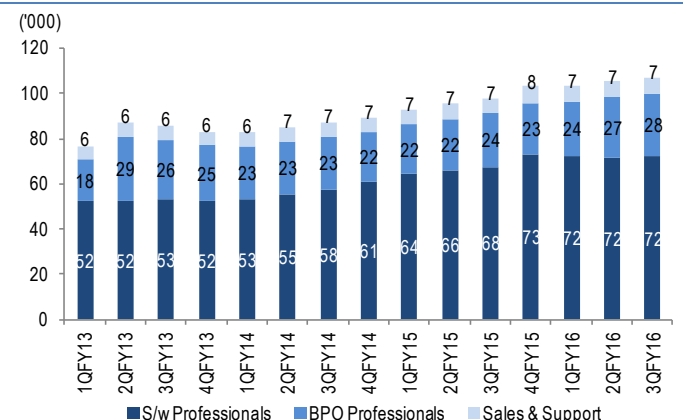
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 10: TCV of large deals have not improved materially over the last two years



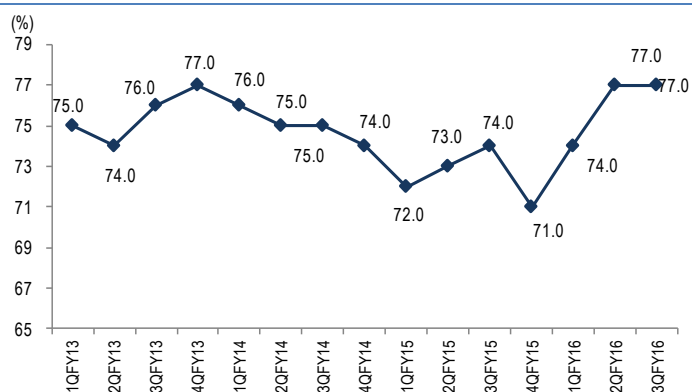
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 11: Quarterly headcount - increase largely driven by BPO business



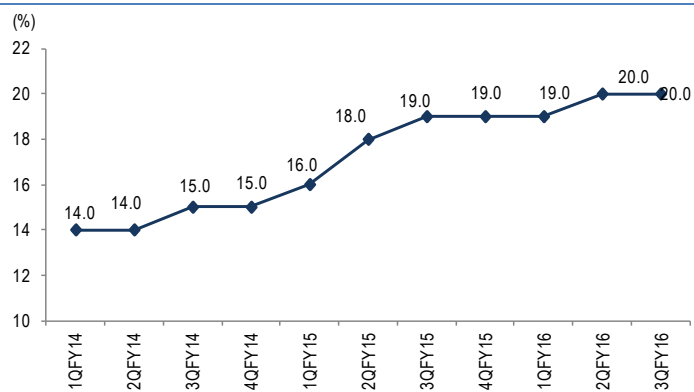
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 12: Utilisation level of employees (including trainees) remains at highest level compared to previous quarters



Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 13: Attrition rate at a historic high



Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 14: Key metrics

	3QFY13	4QFY13	1QFY14	2QFY14	3QFY14	4QFY14	1QFY15	2QFY15	3QFY15	4QFY15	1QFY16	2QFY16	3QFY16
Revenue (US\$mn)	675	698	724	758	791	825	855	900	924	984	989	1011	1015
EBIT (US\$mn)	131	121	132	156	161	152	130	156	163	121	120	137	146
PAT (US\$mn)	116	96	123	114	146	102	105	119	125	78	106	120	116
P&L (Rsmn)													
Revenue	36,683	37,673	41,032	47,715	48,985	50,581	51,215	54,879	57,517	61,168	62,938	66,155	67,011
EBITDA	7,957	7,713	8,645	11,110	11,363	10,718	9,284	10,973	11,601	9,286	9,355	11,010	11,358
PAT	3,215	6,376	6,863	7,183	10,099	6,143	6,307	7,196	8,054	4,721	6,762	7,855	7,593
Vertical mix (%)													
Communication (telecom)	46.0	48.0	49.2	48.3	48.8	50.8	50.7	52.0	50.9	55.3	52.7	52.9	51.3
Manufacturing	18.0	19.0	19.2	18.6	19.0	18.5	17.8	17.7	19.7	16.5	17.1	16.7	17.1
Tech, media & entertainment	12.0	12.0	10.5	10.5	9.1	8.6	8.9	8.3	7.3	7.0	7.3	8.2	7.4
BFSI	11.0	10.0	9.3	9.4	9.9	10.1	10.3	9.7	9.8	9.1	10.0	9.6	9.8
Retail, transport & logistics	7.0	6.0	6.0	7.1	6.9	6.4	6.3	6.2	6.4	6.2	6.5	6.0	6.8
Others	6.0	5.0	5.9	6.3	6.3	5.6	6.0	6.1	6.0	6.0	6.5	6.6	7.6
Geographical mix (%)													
North America	43.0	42.0	45.1	44.2	47.1	45.0	46.8	49.1	48.8	45.4	47.7	48.9	47.8
Europe	35.0	33.0	32.4	33.0	30.9	30.6	31.1	31.2	31.4	29.8	29.4	29.3	28.9
Rest of world	22.0	25.0	22.5	22.8	22.0	24.4	22.1	19.8	19.8	24.8	22.9	21.9	23.2
Delivery (%)													
Onsite	48.0	48.0	51.0	51.0	52.0	53.0	54.0	55.0	55.3	61.1	61.0	61.7	62.7
Offshore	52.0	52.0	49.0	49.0	48.0	47.0	46.0	45.0	44.7	38.9	39.0	38.3	37.3
Staff utilisation (%) (including trainees)	76.0	77.0	76.0	75.0	75.0	74.0	72.0	73.0	74.0	71.0	74.0	77.0	77.0
Clients' concentration (%)													
Top 5 clients	39.0	37.0	37.0	36.0	37.0	36.0	37.0	40.0	37.0	33.0	33.0	32.0	28.0
Top 10 clients	50.0	50.0	49.0	48.0	49.0	48.0	50.0	51.0	49.0	45.0	44.0	43.0	40.0
Top 20 clients	62.0	61.0	60.0	61.0	61.0	61.0	62.0	63.0	61.0	57.0	57.0	56.0	52.0
Number of clients													
1 US\$mn +	206	206	215	223	239	239	242	245	254	291	296	298	326
5US\$mn +	77	70	74	77	75	75	80	86	88	96	101	102	105
10US\$mn +	48	42	46	48	47	52	51	50	51	56	60	62	63
20US\$mn +	22	24	25	26	25	27	29	30	32	35	36	36	37
50US\$mn +	9	9	10	10	11	11	11	12	13	13	13	14	14
Employees	85,646	83,109	83,063	85,234	87,399	89,441	92,729	95,309	98,009	103,281	103,673	105,235	1,07,137
Attrition (%)	16.0	16.0	14.0	14.0	15.0	15.0	16.0	18.0	19.0	19.0	19.0	20.0	20.0

Source: Company, Nirmal Bang Institutional Equities Research

Financials

Exhibit 15: Income statement

Y/E March (Rsmn)	FY15	FY16E	FY17E	FY18E	FY19E
Average INR/USD	61.3	65.6	68.1	70.4	71.0
Net Sales (US\$mn)	3,664	4,045	4,326	4,452	4,633
-Growth (%)	18.3	10.4	7.0	2.9	4.1
Net Sales	2,24,77	2,65,617	2,94,668	3,13,343	3,28,945
-Growth (%)	19.4	18.2	10.9	6.3	5.0
Cost of Sales & Services	1,50,73	1,83,676	2,03,980	2,16,333	2,25,085
Gross Profit	74,045	81,941	90,688	97,010	1,03,860
% of sales	32.9	30.8	30.8	31.0	31.6
SG&A	32,901	38,823	42,134	45,359	47,177
% of sales	14.6	14.6	14.3	14.5	14.3
EBITDA	41,144	43,117	48,553	51,650	56,683
% of sales	18.3	16.2	16.5	16.5	17.2
Depreciation	6079	7273	7944	8944	9944
EBIT	35065	35844	40609	42706	46739
% of sales	15.6	13.5	13.8	13.6	14.2
Interest expenses	297	764	593	60	60
Other income (net)	1,006	4,403	3,923	4,695	5,889
PBT	35,774	39,483	43,939	47,341	52,568
-PBT margin (%)	15.9	14.9	14.9	15.1	16.0
Provision for tax	9,472	9,499	10,765	11,599	12,879
Effective tax rate (%)	26.5	24.1	24.5	24.5	24.5
Minority Interest	310	274	388	388	388
Net profit	26,278	29,724	32,786	35,355	39,301
-Growth (%)	(13.2)	13.1	10.3	7.8	11.2
-Net profit margin (%)	11.7	11.2	11.1	11.3	11.9

Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 17: Balance sheet

Y/E March (Rsmn)	FY15	FY16E	FY17E	FY18E	FY19E
Equity capital	4,807	4,864	4,864	4,864	4,864
Reserves & surplus	1,17,682	1,42,280	1,65,230	1,88,211	2,13,756
Net worth	1,22,489	1,47,144	1,70,094	1,93,075	2,18,620
Minority Interest	1,601	1,784	1,784	1,784	1,784
Other liabilities	16,845	16,480	16,480	16,480	16,480
Total loans	6,746	7,444	3,444	501	501
Total liabilities	1,47,681	1,72,852	1,91,802	2,11,840	2,37,385
Goodwill	17,283	17,067	17,067	17,067	17,067
Net block (incl. CWIP)	28,723	30,705	32,761	33,817	33,873
Investments	21,028	41,323	41,323	41,323	41,323
Deferred tax asset - net	3,901	4,746	4,746	4,746	4,746
Other non-current assets	13,061	14,598	16,040	16,594	17,786
Other current assets	19,404	19,464	21,386	22,126	23,715
Debtors	52,059	58,391	64,158	66,377	71,144
Loans & Advances	18,728	19,464	21,386	22,126	23,715
Cash & bank balance	24,049	20,891	32,086	48,876	69,655
Inventory	245	425	425	425	425
Total current assets	1,14,485	1,18,633	1,39,441	1,59,928	1,88,653
Total current liabilities	50,800	54,220	59,576	61,635	66,062
Net current assets	63,685	64,414	79,866	98,293	1,22,591
Total assets	1,47,681	1,72,852	1,91,802	2,11,840	2,37,385

Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 16: Cash flow

Y/E March (Rsmn)	FY15	FY16E	FY17E	FY18E	FY19E
EBIT	35,065	35,844	40,609	42,706	46,739
(Inc.)/dec. in working capital	(15,306)	(3,887)	(4,257)	(1,637)	(3,519)
Cash flow from operations	19,759	31,957	36,352	41,069	43,220
Other income	1,006	4,403	3,923	4,695	5,889
Depreciation & amortisation	6,079	7,273	7,944	8,944	9,944
Financial expenses	(297)	(764)	(593)	(60)	(60)
Tax paid	(9,472)	(9,499)	(10,765)	(11,599)	(12,879)
Dividends paid	(5,496)	(7,553)	(9,836)	(12,374)	(13,755)
Net cash from operations	11,579	25,817	27,025	30,676	32,359
Capital expenditure	(13,564)	(9,255)	(10,000)	(10,000)	(10,000)
Net cash after capex	(1,985)	16,561	17,025	20,676	22,359
Inc./(dec.) in debt	6,222	698	(4,000)	(2,943)	-
(Inc.)/dec. in investments	(6,309)	(20,295)	-	-	-
Equity issue/(buyback)	2,469	30	-	-	-
Cash from financial	2,382	(19,567)	(4,000)	(2,943)	-
Others	(9,497)	(153)	(1,830)	(943)	(1,580)
Opening cash	33,149	24,049	20,891	32,086	48,876
Closing cash	24,049	20,890	32,086	48,875	69,654
Change in cash	(9,100)	(3,159)	11,195	16,790	20,779

Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 18: Key ratios

Y/E March	FY15	FY16E	FY17E	FY18E	FY19E
Per share (Rs)					
EPS	27.3	30.9	34.1	36.7	40.8
FDEPS	27.0	30.7	33.9	36.6	40.7
Dividend Per Share	5.7	7.8	10.2	12.9	14.3
Dividend Yield (%)	1.3	1.7	2.2	2.8	3.1
Book Value	128	153	177	201	227
Dividend Payout Ratio	20.9	25.4	30.0	35.0	35.0
Return ratios (%)					
RoE	24.5	22.0	20.7	19.5	19.1
RoCE	26.8	22.4	22.3	21.2	20.8
ROIC	41.6	33.6	35.5	35.6	37.7
Turnover Ratios					
Asset Turnover Ratio	1.1	1.2	1.2	1.1	1.1
Debtor Days (incl. unbilled Rev)	85	80	79	77	79
Working Capital Cycle Days	64	60	59	58	59
Valuation ratios (x)					
PER	17.0	14.9	13.5	12.6	11.3
P/BV	3.6	3.0	2.6	2.3	2.0
EV/EBTDA	10.2	9.9	8.5	7.6	6.6
EV/Sales	1.9	1.6	1.4	1.3	1.1
M-cap/Sales	2.0	1.7	1.5	1.4	1.3

Source: Company, Nirmal Bang Institutional Equities Research

Rating track

Date	Rating	Market price (Rs)	Target price (Rs)
13 April 2015	Sell	660	593
28 May 2015	Sell	549	511
19 June 2015	Sell	541	470
28 July 2015	Sell	520	470
28 September 2015	Sell	567	474
4 November 2015	Sell	557	472
15 December 2015	Sell	543	471
8 January 2016	Under Review	522	-
2 February 2016	Under Review	497	-
14 March 2016	Sell	459	395

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Persistent Systems

14 March 2016

Reuters: PERS.BO; Bloomberg: PSYS IN

Short Window Of Opportunity For EDT

We reinstate Sell rating for Persistent Systems (PSL) with a March 2017 target price of Rs522 (downside of 13%). We have valued PSL stock at 10.8x FY18E EPS (25% discount to target P/E multiple of TCS and Infosys). The market sees PSL as a fast-growing 'Enterprise Digital Transformation' (EDT) player, but we reiterate our view that PSL is not the ideal 'Digital' play ([Structural Weakness To Constrain Shareholder Value Creation](#)) with its current narrow menu of offerings. We believe that in every technology transition on the enterprise services side, there is a window of opportunity that opens up, when customers are open to experimenting with new vendors. But this window does not remain open forever, especially if incumbent vendors also acquire the new capabilities at a very fast pace. Besides, incumbents are at a significant advantage having entrenched relationships within customer organisations, deep understanding of clients' businesses & technologies and the ability to cross-subsidise to prevent new players from encroaching on their turf. We believe the time window in the EDT opportunity for a new vendor is likely to be not more than 12-24 months from here on and we feel it is fast closing. We also worry that in the macro-economic environment we are projecting for 2015-17, discretionary spending is likely to soften, impacting 'Digital' demand adversely.

PSL's 'Digital' skills are narrow and client buying behaviour puts it at a disadvantage:

We believe PSL addresses the 'middle' part (unlike end-to-end services handled by its larger peers). PSL's 'Agile Programming' and its 'API' (application program interface) building capabilities have no serious competitive moat around them – in our view. Clients want to work with a few vendors with end-to-end skill-sets. This could put PSL at a disadvantage. At best, it will nibble away at the opportunity with its limited skill-set.

Mid-sized players structurally weak, but PSL has additional problems: Indian mid-sized IT services companies have business models which are weak, volatile and risky. This has been partly because of higher client/vertical/service line concentration. We believe PSL has additional weakness by way of lower service line/vertical capabilities than its mid-sized peers to address enterprise customers. With the pressure on revenue growth that Tier-1 players are likely to witness in the economic scenario we are projecting, the field for mid-sized players will get increasingly competitive and could hurt PSL.

ISV business is under pressure: PSL derives more than half of its revenues from Offshore Product Development for Independent Software Vendor (ISV) customers. This segment is growing at a very slow pace (low to mid single-digit) as the extent of efforts required to develop a piece of software has reduced by as much as 60%-70% based on management commentary. Moreover, ISV customers of PSL are facing pressure in their own businesses with shorter product lifecycles and more frequent changes in product roadmaps. This induces volatility in the business that is given to PSL.

Ability to pick up new IPs at reasonable prices will be key to growth: PSL's strategy has been to drive higher IP (intellectual property) revenues by acquisition of non-strategic and mostly end-of-life products of its customers at very reasonable valuations. As per the management, PSL has built a strong reputation of successful integration of such products over the years which allows it to drive a hard bargain with IP sellers. With product roadmaps changing very fast in the market, it is very likely that ISVs will hived off more products in future. PSL seems well placed to buy these. Recently, PSL has also started buying new products (which are being hived off for various reasons by ISVs). While the deals done thus far have been cheap, additional investments are required and there is the risk of customer acquisition.

Onsite shift driving lower margins: PSL has witnessed a declining margin trajectory over the past two years as it has been increasing its spending on sales and marketing to drive 'EDT' revenue. Some of the enterprise services surrounding implementation of packages of Salesforce.com and Appian involve a lot of onsite work that come with lower gross margin.

SELL

Sector: Information Technology

CMP: Rs599

Target price: Rs522

Downside: 13%

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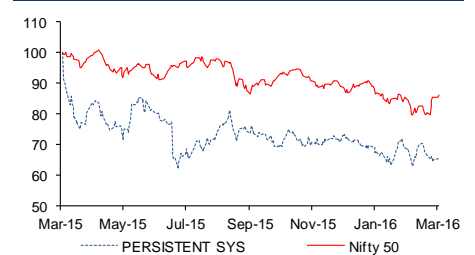
+91-22-3926 8168

Key Data

Current Shares O/S (mn)	80.0
Mkt Cap (Rsbn/US\$bn)	48.2/0.7
52 Wk H / L (Rs)	944/563
Daily Vol. (3M NSE Avg.)	85,490

Share holding (%)	1QFY16	2QFY16	3QFY16
Promoter	38.5	38.5	38.5
FII	18.4	16.6	16.7
DII	10.5	10.9	10.7
Public	31.1	32.2	31.7
Others	1.5	1.8	2.4

One-Year Indexed Stock



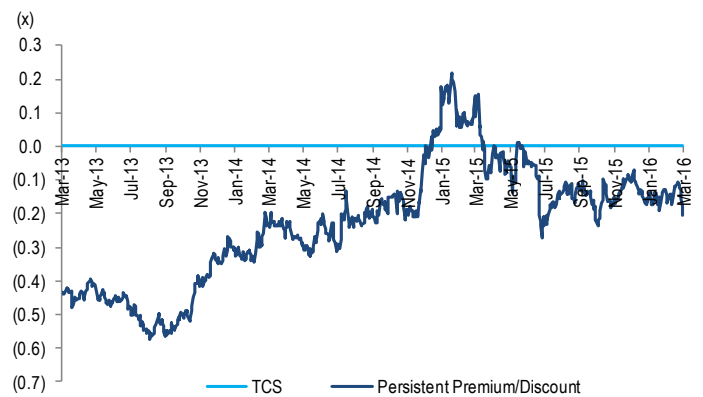
Price Performance (%)

	1 M	6 M	1 Yr
Persistent Systems	0.5	(11.9)	(28.1)
Nifty Index	7.7	(3.6)	(13.7)

Source: Bloomberg

(Based on 11th March 2016 closing price)

Exhibit 1: P/E Multiple still higher than long-term average

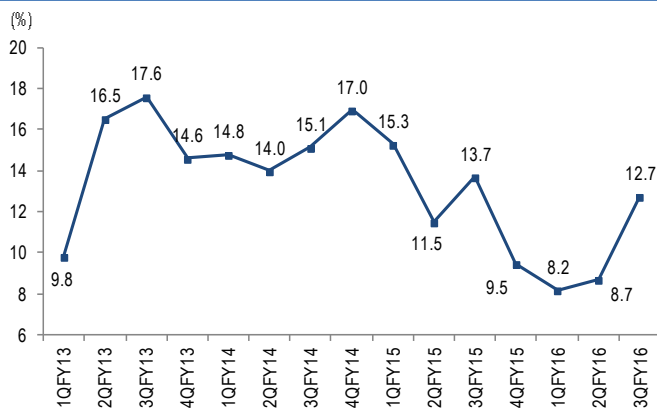
Exhibit 2: P/E discount with respect to TCS


Source: Company, Nirmal Bang Institutional Equities Research

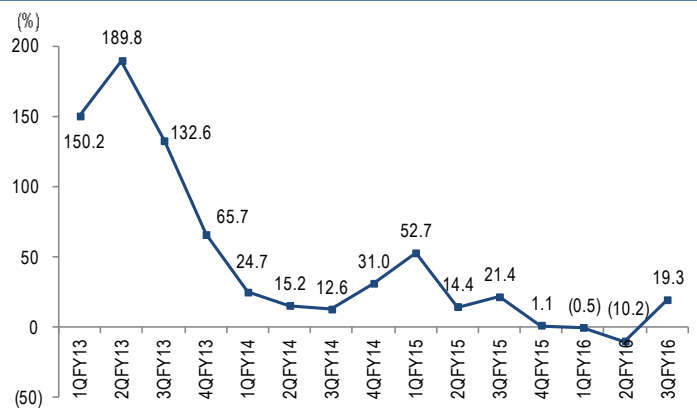
Exhibit 3: YoY growth of nine-month period

Y/E March (Rsmn)	9MFY15	9MFY16	YoY (%)
Net sales	13,938	16,352	17.3
Direct costs	8,342	9,951	19.3
% of sales	59.8	60.9	-
SG&A expenses	2,695	3,304	22.6
% of sales	19.3	20.2	-
EBITDA	2,901	3,097	6.8
EBITDA margin (%)	20.8	18.9	-
Depreciation and amortisation	711	709	(0.3)
Operating profit	2,190	2,388	9.0
EBIT margin (%)	15.7	14.6	-
Other income, net	333	358	7.5
Forex gain/(losses)	419	182	(56.5)
PBT	2,942	2,928	(0.4)
Provision for tax	796	763	(4.1)
-effective tax rate	190	419	-
PAT	2,564.4	2,347.8	(8.4)
NPM (%)	18.4	14.4	-

Source: Company, Nirmal Bang Institutional Equities Research

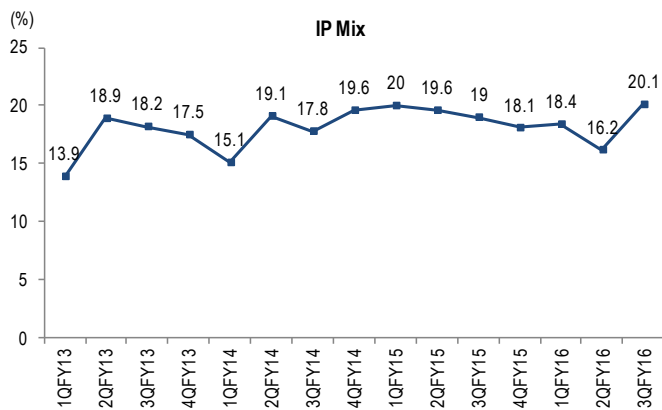
Exhibit 4: USD Revenue Growth (YoY)


Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 5: IP Revenue growth (YoY)


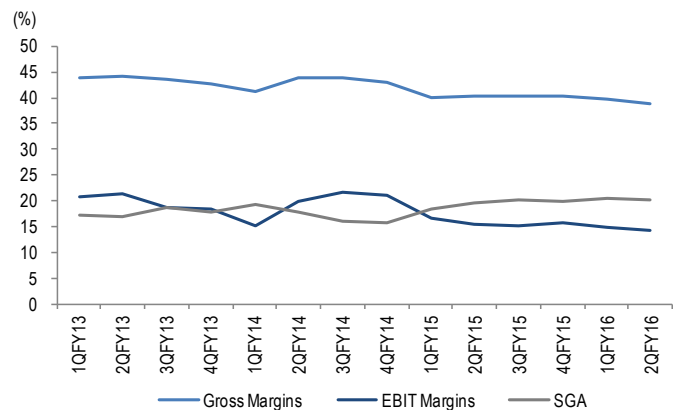
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 6: IP mix shoots up in the last quarter on account of Aepona and Akumina



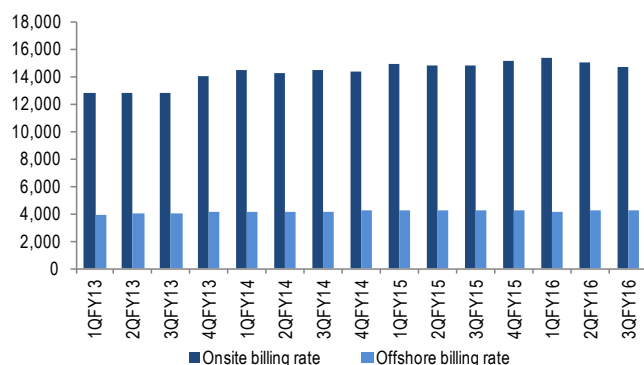
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 7: Gross margin, EBIT margin and SG&A expenses trend



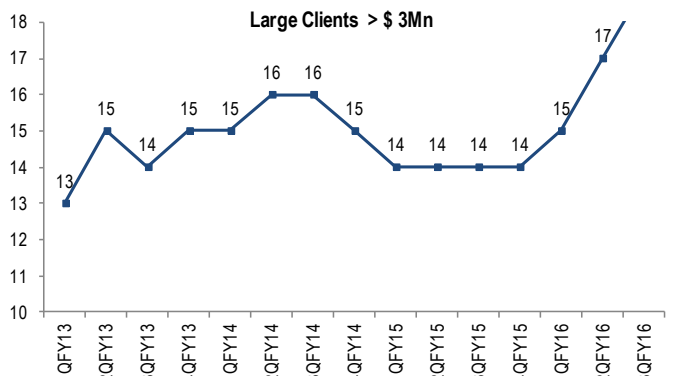
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 8: Onsite and offshore billing rates



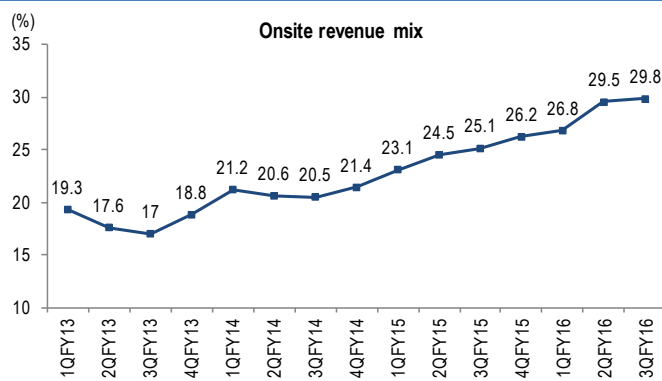
Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 9: Number of large clients increasing



Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 10: Increase in onsite mix as Digital Enterprise work increases



Source: Company, Nirmal Bang Institutional Equities Research

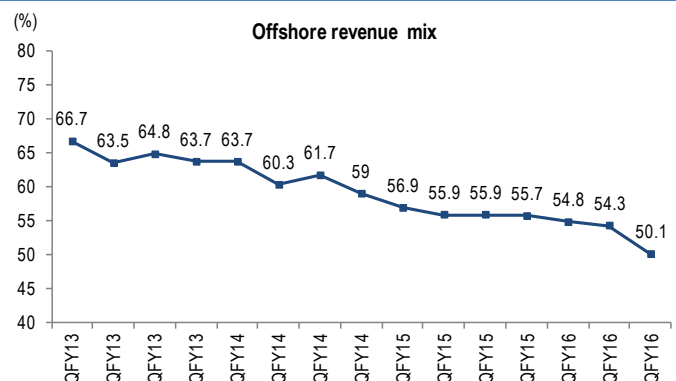
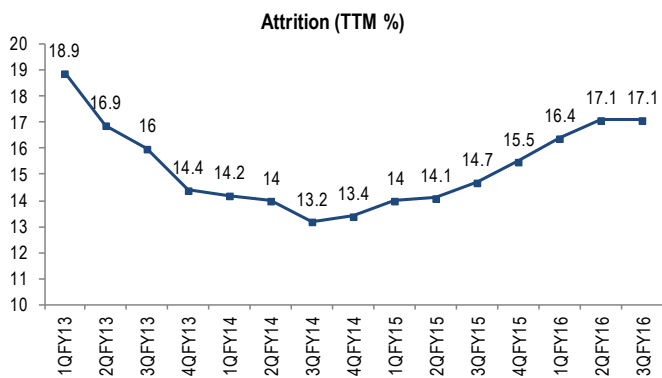
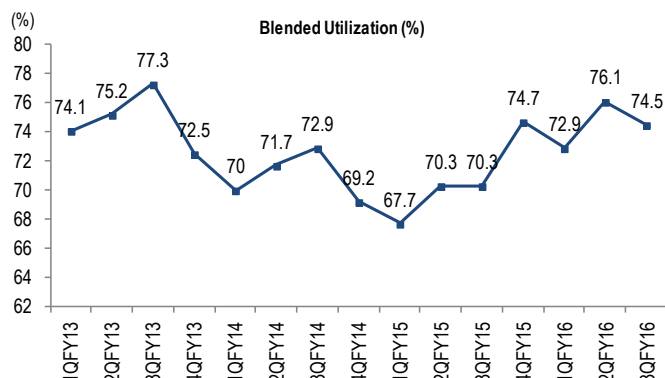


Exhibit 11: Attrition rate remains elevated



Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 12: Utilisation rate at high levels as compared to its own past trends



Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 13: Partial list of IP acquisitions done by PSL

IP	Date	Comment
Citrix CloudPlatform	2016	Acquired from Citrix. This is an application-centric cloud solution which can orchestrate both traditional enterprise and cloud-native application workloads.
Akumina	2015	Acquired Digital Content Management Solutions business of Akumina that optimizes user experiences for digital businesses using Microsoft SharePoint.
Aepona	2015	Telecom, IOT and API-related technologies acquired from Intel Corporation.
Rgen	2015	Microsoft technologies-related company.
Radia	FY13	Acquired from HP. This product allows system administration to audit and install applications on various end-points such as desktops, laptops, mobiles, tablets and even ATM machines.
rCloud	October-2012	Acquired from Doyenz. It is a cloud-based disaster recovery solution.
TNPM	FY13	Tivoli Netcool Performance Manager acquired from IBM.
Location	February-2012	Acquired from Openwave. It helps telecom operators understand the location of their customers.
Paxpro	FY08	Acquired from Paxonix Inc., a subsidiary of MeadWestvaco (a packaging company). It is a brand lifecycle management software for US Food and Drug Administration-regulated industries.

Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 14: Key metrics

	3QFY14	4QFY14	1QFY15	2QFY15	3QFY15	4QFY15	1QFY16	2QFY16	3QFY16
Revenue (US\$mn)	70	73	73	76	80	80	79	83	90
EBIT (US\$mn)	15	15	12	12	12	13	12	12	13
PAT (US\$mn)	10	11	11	12	12	12	11	11	12
P&L (Rsmn)									
Revenue	4,328	4,467	4,350	4,642	4,946	4,975	5,004	5,427	5,921
EBITDA	1,197	1,207	949	957	995	1,005	969	1,018	1,110
PAT	642	672	688	713	745	761	672	718	775
Vertical mix (%)									
Telecom	18.0	15.3	18.5	16.7	16.0	16.3	14.9	13.2	16.2
Infrastructure and Systems	68.9	71.6	54.6	56.0	55.3	54.5	54.2	54.7	50.8
Life Sciences & Healthcare	13.1	13.1	13.1	13.4	13.6	14.3	14.3	14.4	13.7
Financial Services	0.0	0.0	13.8	13.9	15.1	14.9	16.6	17.7	19.3
Geographical mix (%)									
North Americas	83.1	85.4	85.9	86.1	84.7	85.4	84.4	86.2	85.3
Europe	6	6.1	6.5	6.3	7.1	6.8	6.3	6.8	6.3
Asia-Pacific	10.9	8.5	7.6	7.6	8.2	7.8	9.3	7	8.4
Project type									
Services	82.2	80.4	80.0	80.4	81.0	81.9	81.6	83.8	79.9
IP driven	17.8	19.6	20.0	19.6	19.0	18.1	18.4	16.2	20.1
Revenue mix-Onsite	20.5	21.4	23.1	24.5	25.1	26.2	26.8	29.5	29.8
Revenue mix-Offshore	61.7	59	56.9	55.9	55.9	55.7	54.8	54.3	50.1
Client concentration (%)									
Top client	19.8	21.1	20.8	19.0	17.5	16.5	18.1	17.6	17.4
Top 5 clients	36.9	39.4	38.7	36.1	35.0	34.1	36.0	35.4	34.3
Top 10 clients	46.9	48.5	49.0	45.0	44.2	43.2	45.6	44.7	44.1
Number of clients									
Large > US\$ 3mn	16	15	14	14	14	14	15	17	19
Medium >US \$ 1mn, <US \$ 3mn	34	36	38	41	41	48	52	46	44
Employees	7,602	7,857	7,876	8,067	8,296	8,506	8,454	8,545	8,966
Attrition (%)	13.2	13.4	14	14.1	14.7	15.5	16.4	17.1	17.1

Source: Company, Nirmal Bang Institutional Equities Research

Financials

Exhibit 15: Income statement

Y/E March (Rsmn)	FY15	FY16E	FY17E	FY18E	FY19E
Average INR/USD	61.3	65.7	68.1	70.4	71.0
Net Sales (US\$m)	308	343	386	405	430
-Growth (%)	12.4	11.5	12.3	4.9	6.3
Net Sales	18,913	22,580	26,272	28,485	30,534
-Growth (%)	13.3	19.4	16.4	8.4	7.2
Cost of Sales & Services	11,317	13,633	15,954	17,627	19,061
% of sales	59.8	60.4	60.7	61.9	62.4
Gross Margin	7596	8947	10318	10859	11472
% of sales	40.2	39.6	39.3	38.1	37.6
SG&A	3,690	4,613	5,237	5,316	5,395
% of sales	19.5	20.4	19.9	18.7	17.7
EBITDA	3,906	4,334	5,082	5,543	6,077
% of sales	20.7	19.2	19.3	19.5	19.9
Depreciation	939	974	1,132	1,262	1,402
EBIT	2,967	3,360	3,950	4,281	4,675
% of sales	15.7	14.9	15.0	15.0	15.3
Other income (net)	932	712	758	885	1,002
PBT	3,900	4,072	4,707	5,165	5,677
-PBT margin (%)	20.6	18.0	17.9	18.1	18.6
Provision for tax	993	1,055	1,200	1,317	1,448
Effective tax rate (%)	25.5	25.9	25.5	25.5	25.5
Net profit	2,906	3,018	3,507	3,848	4,230
-Growth (%)	16.6	3.8	16.2	9.7	9.9
-Net profit margin (%)	15.4	13.4	13.3	13.5	13.9

Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 17: Balance sheet

Y/E March (Rsmn)	FY15	FY16E	FY17E	FY18E	FY19E
Equity capital	800	800	800	800	800
Reserves & surplus	13,255	15,062	17,338	19,385	21,636
Net worth	14,055	15,862	18,138	20,185	22,436
Deferred tax liability	3	-	-	-	-
Other liabilities	1	1	1	1	1
Total loans	25	26	26	26	26
Total liabilities	14,084	15,889	18,165	20,212	22,463
Goodwill	24	154	154	154	154
Net block (incl CWIP)	4,093	4,074	4,142	4,280	4,278
Investments	6,735	7,048	7,048	7,048	7,048
Deferred tax asset	315	366	366	366	366
Other non-current assets	127	791	791	791	791
Other current assets	1,452	1,744	1,872	2,031	2,199
Debtors	3,586	4,546	4,881	5,296	5,734
Cash & bank balance	1,416	1,339	3,391	5,107	7,155
Total current assets	6,454	7,629	10,144	12,434	15,088
Total current liabilities	3,665	4,173	4,480	4,861	5,263
Net current assets	2,790	3,456	5,664	7,573	9,825
Total assets	14,084	15,889	18,165	20,212	22,463

Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 16: Cash flow

Y/E March (Rsmn)	FY15	FY16E	FY17E	FY18E	FY19E
EBIT	2,967	3,360	3,950	4,281	4,675
(Inc.)/dec. in working capital	(29)	(327)	(450)	(175)	(199)
Cash flow from operations	2,939	3,033	3,500	4,106	4,477
Other income	932	712	758	885	1,002
Depreciation & amortisation	939	974	1,132	1,262	1,402
Tax paid	(993)	(1,055)	(1,200)	(1,317)	(1,448)
Dividends paid	(667)	(762)	(1,231)	(1,801)	(1,980)
Net cash from operations	3,149	2,903	2,958	3,135	3,453
Capital expenditure	594	1,372	1,200	1,400	1,400
Net cash after capex	2,555	1,531	1,758	1,735	2,053
Inc./(dec.) in debt	(7)	1	-	-	-
(Inc.)/dec. in investments	(1,841)	(313)	-	-	-
Equity issue/(buyback)	400	-	-	-	-
Cash from financial activities	(1,448)	(312)	-	-	-
Others	(647)	(1,297)	294	(19)	(6)
Opening cash	957	1,416	1,339	3,391	5,107
Closing cash	1,417	1,339	3,390	5,106	7,154
Change in cash	460	(78)	2,052	1,716	2,047

Source: Company, Nirmal Bang Institutional Equities Research

Exhibit 18: Key ratios

Y/E March	FY15	FY16E	FY17E	FY18E	FY19E
Per Share (Rs)					
EPS	36.8	37.9	44.0	48.3	53.1
FDEPS	36.3	37.7	43.8	48.1	52.9
Dividend Per Share	7.1	8.2	13.2	19.3	21.2
Book Value	177	199	228	253	282
Dividend Payout Ratio	19.3	21.6	30.0	40.0	40.0
Return ratios (%)					
RoE	22.6	22.5	23.2	22.3	21.9
RoCE	22.5	22.4	23.2	22.3	21.9
ROIC	48.1	50.0	51.9	54.3	57.3
Turnover Ratios					
Asset Turnover Ratio	1.3	1.4	1.4	1.4	1.4
Debtor Days (incl. unbilled Rev)	69	73	68	68	69
Working Capital Cycle Days	27	28	31	30	31
Valuation ratios (x)					
PER	16.3	15.8	13.6	12.4	11.3
P/BV	3.4	3.0	2.6	2.4	2.1
EV/EBTDA	11.8	10.7	8.7	7.7	6.7
EV/Sales	2.4	2.1	1.7	1.5	1.3
M-cap/Sales	2.5	2.1	1.8	1.7	1.6

Source: Company, Nirmal Bang Institutional Equities Research

Rating track

Date	Rating	Market price (Rs)	Target price (Rs)
21 September 2015	Sell	685	562
27 October 2015	Sell	669	553
7 December 2015	Sell	663	544
8 January 2016	Under Review	630	-
27 January 2016	Under Review	609	-
14 March 2016	Sell	599	522

Disclaimer

Stock Ratings Absolute Returns

BUY > 15%

ACCUMULATE -5% to 15%

SELL < -5%

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