

## Information Technology Sector

01 January 2021

### Compressed transformation to offset seasonality: Focus on FY22 strength

In 3QFY21, Nifty IT index underperformed Nifty by 280bps, while it outperformed Nifty by a whopping 4000bps in CY20. The underperformance of Nifty IT in 3QFY21 can be partly attributed to the already strong run-up in valuation (which was at 10-12 year high) prior to the start of the quarter. Also, it was offset by the outperformance of heavyweight Nifty Bank vis-à-vis Nifty - by 2140bps (see Exhibit 3). One of the reasons for the outperformance of IT vis-à-vis Nifty in 2QFY21 was outflow from banks on concerns surrounding asset quality. We think those concerns may have diminished in 3QFY21, leading to Nifty Bank's sharp upmove. This area needs to be watched as it could determine relative shift of flows between the two sectors. While 3Q is typically a seasonally weak quarter for IT companies due to furloughs and lower working days, we expect all companies to show robust QoQ performance, relative to the past. One driver of this would be quick pivot to digital that enterprise clients seem to want at the current juncture. That is reflected in growth in order inflows for both Accenture and TCS lately (16% and 28%, respectively in the last 6 months). It is also borne out by the significant large deal wins by the Tier-1 players in recent months. Most Tier-1 IT companies have hinted at double-digit revenue growth in FY22, driven by acceleration in secular trends of core modernisation, digital transformation, cloud migration and automation. Accenture's FY21 guidance implies that double-digit growth in FY22 for Indian IT service players is quite realistic. The street, however will try to assess the extent of strength and its longevity in the analyst calls. While margin improvement was above street expectations in 1HFY21, owing to lower travel and marketing-related costs, higher offshoring, lower subcontracting, cross-currency gains etc, we expect salary hikes in some companies to negatively impact 3Q margins. While all companies are likely to benefit from cross-currency gains, these will be more modest than those seen in 2QFY21. Key things to watch in the analyst calls include (1) outlook for IT spends in 2021 (2) the interplay between legacy and digital and how that is going to impact overall growth (3) how much of the strength will hold up beyond FY23 as there is discussion around compressed transformation - demand being brought forward and bunched up (4) how much of an impact has the second and third waves of the pandemic playing out in the US and in Europe would have on sectors such as Travel, Hospitality, Transportation, non-grocery retail etc (5) the extent of margin compression in FY22 and beyond as operations normalize, especially from elevated levels of FY21 (6) impact on margins and return ratios from the many large deals won (7) what is the pipeline of such large deals etc. We had rolled forward the basis of valuation to FY23 EPS from Sept'2022 via our 29<sup>th</sup> December 2020 note ([Looks stronger near term](#)) besides raising revenue and earnings estimates for all coverage companies. We continue to have a 'neutral' stand on the sector. In terms of PE multiples, we continue to work with TCS as the sector benchmark at 25x (+2SD over 5-year mean). We have benchmarked all other IT companies with respect to TCS. We believe that the current valuations can hold up on expectation of (1) stronger growth in the near term and (2) possibility of high single digit/ low double digit growth beyond FY23.

**Other points to watch out for in the results:** (1) pace of conversion of TCV into revenue (2) extent of revision of revenue and margin guidance by both Infosys and HCL Technologies (3) whether bunching up of demand is creating a problem from supply perspective, especially on the Digital side. Whether that is leading to pick-up in attrition rate from extremely low levels. Whether the companies are able to command higher pricing on their digital projects to offset the compensation increase (4) Whether the strong cashflows displayed in 1HFY21 will be sustained in the future (5) the annuity component of the large deals that have been won in recent times.

**Girish Pai**

Head of Research

girish.pai@nirmalbang.com

+91-22-6273 8017

### Exhibit 1: Summary of financial performance of companies in our coverage universe in 3QFY21E

(Rsmn) Companies	Revenues				EBIT			EBIT Margin (%)			PAT				
	USD (mn)	3QFY21E	YoY (%)	QoQ (%)	QoQ Growth CC (%)	QoQ Growth USD (%)	3QFY21E	YoY (%)	QoQ (%)	3QFY20	2QFY21	3QFY21E	3QFY21E	YoY (%)	QoQ (%)
TCS	5,549	4,09,006	2.6	1.9	1.5	2.3	1,04,778	5.1	(0.4)	25.0	26.2	25.6	86,303	6.3	2.3
Infosys	3,415	2,51,725	5.3	3.1	2.5	3.1	61,506	21.5	(1.2)	21.9	25.3	24.4	52,737	18.3	8.8
Wipro**	2,057	1,57,106	1.6	3.9	2.5	3.2	28,955	6.3	2.9	17.6	18.6	18.4	26,034	6.0	4.0
HCL Tech	2,579	1,90,100	4.8	2.2	2.5	2.9	39,944	8.8	(0.5)	20.2	21.6	21.0	33,784	11.2	7.5
Tech Mahindra	1,294	95,382	(1.2)	1.8	1.5	2.3	14,198	20.5	6.6	12.2	14.2	14.9	12,883	12.4	21.0
Mindtree	269	19,793	0.7	2.8	2.5	2.9	3,275	38.5	(1.8)	12.0	17.3	16.5	2,629	33.5	3.6
Persistent	141	10,380	12.5	3.0	3.2	3.5	1,256	55.8	3.1	8.7	12.1	12.1	1,169	32.9	14.6

Note: \*\* only for IT services. Source: Company, Nirmal Bang Institutional Equities Research

**Our view on the Indian IT services sector:** In our sector updates of 6th September 2020 ([Rising monetary and digital tides lifting most boats](#)) and of 28th September 2020 ([Medium term commentary turning more positive](#)), we upgraded our view to 'neutral' on the sector from a 'cautious' one held for the last many years on the back of both higher earnings and higher target PE multiples. The earnings uplift is coming from an expectation of 400-600bps pick-up in organic revenue growth over FY21-FY23 against the one seen in the FY15-FY20 timeframe along with an improvement in margins. The revenue acceleration is coming from increased spending on Digital by clients and which in our view will likely be compressed in a shorter period of time than was expected in the past. The demand uplift is more widespread than seen in the past and is a 'rising-tide-lifting-most-boats' kind of situation. Reasons for change in customer behavior, in our view are: (1) Strong need for digital transformation, not only to structurally cut costs, but also to deliver contact-less consumer and employee experiences, driven by the nature of the pandemic. Based on the commentary from customers, software companies and IT services vendors, we believe that digital demand has been pulled forward from the future. (2) quick and unprecedented 'whatever-it-takes' monetary and fiscal actions in the US and Europe that likely eliminated tail risks to economic recovery and reduced risk aversion among corporates. While customer P&Ls and cash flows saw pain, credit market conditions significantly eased up with investment grade and junk bond yields more than halving from their pandemic peak as the US Federal Reserve stepped into the credit markets directly. Corporate America binged on cheap debt. These monetary conditions could last, we believe, for at least 18-24 months if not longer. The changed view on margins has been driven by business model changes that the pandemic has induced, which we think are structurally positive. These involve higher offshoring, lower subcontractor cost, structurally lower travel and marketing costs. Also we see accelerated employee pyramid reshaping that could control cost increases. We see WFH/WFA expanding the talent pool in a material way in the long term, leading to lesser pressure on talent costs.

Higher PE multiples are driven by (1) lower interest rates globally and domestically (2) valuation exuberance (irrational!?) in the enterprise technology space in the US and (3) constrained domestic investment choices. While there could be a growth spike in FY22 after a modest dip in FY21 (lower than anticipated), we see organic revenue growth in FY23 being only a tad lower than that of FY22. We are yet to take a concrete view on a 'stronger for longer' (beyond FY23) situation and hence we have not given our benchmark, TCS, a higher target PE multiple.

**Why not a sell:** (1) We see earnings acceleration over FY21-FY23 due to faster revenue growth and a higher margin trajectory. (2) Current exuberance (irrational!?) in enterprise tech valuations in the US likely rubbing off on Indian IT services. (3) a situation where double digit revenue growth could stretch beyond FY23. (4) lower for longer interest rates globally could keep PE multiples elevated.

**Why not a buy:** (1) PE multiples are already at 10-12 year highs and partly reflect the turnaround in fundamentals over FY21-FY23. (2) Adverse impact on US corporate profits in 2021 and beyond (leading to cut back in spending) due to higher taxation if new US President Joe Biden is able to push them through. (3) Likely slower organic growth in the medium term as spends are pulled forward. Growth could settle into mid- single digit territory in USD terms beyond a point in time. (4) A likely deflation in enterprise tech valuations in the US.

**Valuation and stock calls:** TCS continues to be our sector benchmark as it has the strongest position in the industry. With enterprise tech sector in the US going through a bout of exuberance currently, an overshoot on the upside is not entirely ruled out. We back our higher PE multiples with (1) expectation of earnings acceleration over FY21-FY23 against FY17-FY20 on revenue expansion (2) lower for longer interest rates globally and likely in India too that could keep PE multiples elevated (3) potential for good return of capital to investors due to strong cash flows. We have benchmarked all other coverage companies with respect to TCS. While historically we have not liked mid-tier IT companies due to their significant client, geographic and vertical concentration risks and weaker capabilities, we believe they could be beneficiaries in the next 24 months of robust demand. We believe vendor consolidation risks are lower due to this. We also think that some of them are undergoing a structural change for the better under new managements, which could set them up for better growth, margins and PE multiples.

**Exhibit 2: Key things to focus on in the numbers and in the management commentary**

TCS	<ul style="list-style-type: none"> <li>• TCS' CEO in his media interaction believes that the IT industry would witness double digit growth for a few years and aims to achieve the same.</li> <li>• TCS had indicated that revenue would recover to pre-pandemic levels by October-December (3QFY21) in INR terms and would be flat on CC basis by 4QFY21.</li> <li>• Would watch commentary on TCS' recent deals of takeover of Post Bank systems from Deutsche Bank and Pramerica's Ireland IT operations and the impact it would have on margins. We expect a strong TCV number in the quarter. TCV in 1HFY21 was up 28%</li> <li>• TCS had indicated that there is a huge opportunity for it in grabbing market share by further tapping its own huge customer base. TCS is the holistic partner for less than 20% of its Top 500 customers. We will watch for progress here.</li> <li>• Margins are expected to be hit QoQ by wage increases in 3QFY21. TCS had indicated that the wage hike would be executed for the entire workforce.</li> <li>• With about 15% of its revenue coming from UK, the impact of the Brexit deal is something that needs to be watched.</li> <li>• The BFSI space seems to be recovering quite nicely. Need to see if large banks in the US have embarked on core transformation projects.</li> </ul>
Infosys	<ul style="list-style-type: none"> <li>• Expect company to raise its annual revenue growth guidance from the 2-3% level to possibly 3-5% for FY21</li> <li>• Expect much of the incremental revenue in 3QFY21 to have come from the Vanguard deal</li> <li>• Infosys's CEO had indicated in a media interaction that it aspires to clock double digit growth in FY22 (when he stated in a media interaction that he expects Infosys to regain its growth momentum seen in FY20). We need to see if there is any more color likely to be given post a series of large deal wins by Infosys in recent months.</li> <li>• We believe margins are likely to take a hit in 3QFY21 due to partial wage hikes for the junior employees.</li> <li>• Would look for clarity on the size of the Daimler deal as media reports had put the number in a wide range – US\$1bn-US\$3.2bn</li> <li>• Watch for management's take on how margins will play out in the context of large deals.</li> </ul>
HCL Technologies	<ul style="list-style-type: none"> <li>• We will watch out for any commentary/revision in guidance for 4QFY21.</li> <li>• We will watch out for an update on deal wins as the company has not announced any large deals during the quarter.</li> <li>• HCLT is likely to witness a margin decline due to salary increases starting from October 2020. Another round is likely starting January 2021.</li> <li>• Market would be closely watching for any granular level data on HCL Software business as some of the peer products are scaling new peaks in terms of valuation in the US market. HCLT had witnessed a solid performance from the HCL Software business in 2QFY21 with the products and platforms business growing by 16% YoY.</li> </ul>
Wipro	<ul style="list-style-type: none"> <li>• We will watch out for commentary on strategies under the new corporate structure. Thierry, the new CEO, has announced a number of measures to bring Wipro back on the growth track. He aims to make the organisation structure leaner, drive operational efficiencies, concentrate on limited geographies and verticals and make Wipro a growth focused organisation. The success or failure of these structural changes is yet to be seen.</li> <li>• Under a new Chief Growth Officer (who is yet to be named), the company plans to (1) invest in strategic clients (2) accelerate large deal wins and (3) build hyper-growth alliances. It also plans to complement these with strategic M&amp;A which would be at a much larger scale than earlier.</li> <li>• Need to see if it can hold on to its margins that it displayed in 2QFY21</li> <li>• Expects a revenue growth guidance (QoQ) for 4QFY21 in the 2-3.5% region.</li> </ul>
Tech Mahindra	<ul style="list-style-type: none"> <li>• TML stated in its Analyst Meet held in November 2020 that it expects a pick-up in overall revenue growth to high single digits in FY22 with enterprise side leading with a double-digit number and communication vertical growing in mid-high single digits with no material revenue from 5G. This is probably on the back of higher large deal pipeline and deal flow.</li> <li>• The order inflow in 1HFY21 has not been very impressive and a third quarter of disappointment may dampen stock performance.</li> <li>• TML remains confident of margin expansion in the medium term to mid-teen levels, supported by growth and structural levers – offshoring, subcontracting, improving profitability of portfolio companies etc.</li> <li>• We expect margins to improve further in 3QFY21 as the salary hike is expected only in 4QFY21 (for junior employees). The trajectory of improvement in margins in the portfolio companies is a key monitorable.</li> <li>• Another key thing to monitor would be the receivables situation. Among the companies we cover, Tech Mahindra has the worst numbers.</li> <li>• We will watch out for commentary on 5G as that is expected to be a key medium term growth driver.</li> </ul>
Mindtree	<ul style="list-style-type: none"> <li>• MTCL was focusing on reducing client concentration and is looking to grow the other Top 10 accounts apart from its biggest client – Microsoft. We will watch for progress on the same.</li> <li>• MTCL had indicated in 2QFY21 that it would maintain EBIT margin at 2QFY21 level (17.3%). Delivery on this front would be very critical as almost the entire street had upped its margin estimates on the back of this guidance. Margins had seen a significant upturn in recent quarters.</li> <li>• We will look out for commentary on large deals, especially the annuity components in them. The deal flow had been a tad slow for MTCL and a slow quarter will not be looked at very kindly considering the significant increase in the stock price in such a short interval.</li> </ul>
Persistent Systems	<ul style="list-style-type: none"> <li>• PSL had indicated that some new roles were being created and these are expected to be filled by February 2021. We will watch for any announcements about new senior leaders joining the organization.</li> <li>• We expect IP seasonality to prevent a fall in margins from 2QFY21 levels.</li> <li>• PSL wants to expand its presence in Europe. We will watch for any steps towards the same.</li> <li>• We will look out for commentary for moves to improve profitability in the alliance business (largely IBM related).</li> <li>• Large deal wins would be a key focus as the company has formed a specific team for it.</li> </ul>

**Exhibit 3: Stock and Index Performance**

Stock Performance(%)	CY16	CY17	CY18	CY19	CY20	1QCY18	2QCY18	3QCY18	4QCY18	1QCY19	2QCY19	3QCY19	4QCY19	1QCY20	2QCY20	3QCY20	4QCY20
TCS	(2.8)	11.7	44.4	16.3	32.4	8.5	29.7	18.2	(13.2)	5.6	11.3	(5.7)	5.0	(15.5)	14.0	19.7	14.9
Infosys	(8.6)	4.1	28.2	11.9	71.8	9.5	16.4	11.7	(10.0)	13.8	(1.6)	10.1	(9.2)	(12.3)	14.7	37.0	24.6
Wipro	(15.4)	30.4	7.2	(0.7)	57.1	(8.7)	(7.0)	23.9	1.9	2.9	10.1	(14.5)	2.5	(20.0)	11.7	42.7	23.2
HCL Tech	(2.5)	7.2	9.1	18.6	66.5	10.3	(4.4)	17.4	(11.9)	13.5	(2.1)	1.5	5.1	(23.2)	27.6	45.7	16.6
Tech Mahindra	(7.0)	3.0	43.6	6.8	27.7	28.5	2.6	13.7	(4.2)	8.7	(8.9)	1.1	6.7	(25.8)	(3.9)	45.7	22.9
Persistent	(3.6)	11.7	(9.6)	6.9	125.0	(0.5)	16.9	(2.8)	(20.0)	(0.1)	(1.9)	(7.7)	18.3	(18.3)	15.3	111.2	13.1
Mindtree	(26.9)	17.5	41.0	(5.3)	107.5	25.9	27.8	4.7	(16.4)	9.3	(1.8)	(21.9)	13.0	3.6	11.7	44.6	24.0
Coforge	(26.4)	53.1	77.7	37.7	70.2	33.2	26.9	(0.1)	5.2	14.9	1.5	3.7	14.0	(27.8)	22.8	64.8	16.5
DXC	-	-	(35.5)	(29.0)	(31.5)	5.9	(7.4)	16.0	(43.4)	21.5	(14.2)	(46.5)	27.4	(65.3)	26.4	8.2	44.3
Endava	-	-	-	93.0	64.7	-	-	-	(15.4)	13.9	46.3	(5.9)	23.1	(24.5)	37.4	30.7	21.5
Cognizant	(7.9)	27.1	(11.9)	(1.4)	32.1	11.6	(0.9)	(2.3)	(18.4)	15.1	(12.5)	(4.9)	2.9	(25.1)	22.3	22.2	18.0
Accenture	10.5	31.2	(9.0)	50.6	24.0	(4.0)	11.0	4.0	(17.8)	25.9	5.0	4.1	9.5	(22.5)	31.5	5.2	15.6
Globant SA	(12.9)	39.7	24.3	86.8	105.2	11.1	11.9	3.9	(3.7)	25.7	41.5	(9.4)	15.8	(17.1)	70.5	19.6	21.4
Epam Systems INC	(18.9)	67.5	5.9	86.0	68.9	3.6	11.5	10.8	(17.2)	48.3	2.3	5.3	16.4	(12.5)	35.7	28.3	10.8
Cap Gemini	(6.2)	22.5	(13.1)	26.7	16.4	1.8	14.4	(5.9)	(20.7)	25.8	1.2	(1.1)	0.7	(29.3)	32.4	7.7	15.5
Cyient	4.5	18.3	5.8	(33.2)	25.0	19.7	10.3	(2.8)	(17.5)	5.7	(16.5)	(14.2)	(11.8)	(44.1)	20.3	39.1	33.8
Mphasis	13.8	27.9	38.6	(8.1)	67.0	15.6	29.4	8.2	(14.4)	(1.3)	1.3	(4.7)	(3.6)	(28.0)	32.3	57.4	11.3
LTI	-	61.2	57.9	1.1	109.1	22.3	24.7	14.7	(9.7)	(1.6)	7.5	(17.4)	15.8	(18.4)	37.0	29.9	43.9
LTTS	-	30.5	66.0	(13.6)	59.3	20.7	(1.4)	42.5	(2.1)	(7.5)	11.0	(12.8)	(3.6)	(20.9)	10.5	26.1	44.6
Intellect Design	(50.2)	27.9	33.7	(38.1)	127.7	(1.1)	17.1	4.9	10.1	(9.0)	30.6	(31.3)	(24.2)	(60.7)	105.2	100.0	41.1
OFSS	(17.1)	30.6	(9.9)	(25.2)	17.3	(7.8)	8.8	(3.9)	(6.5)	(7.5)	(6.4)	0.1	(13.7)	(26.1)	41.5	7.3	4.6
Ramco Systems	(57.8)	57.3	(47.5)	(38.8)	254.1	(32.6)	(4.1)	(6.1)	(13.4)	(13.8)	(11.5)	(23.1)	4.2	(56.7)	50.2	285.4	41.3
Just Dial	(61.5)	57.4	(4.0)	13.7	10.8	(15.4)	25.3	(14.0)	5.2	20.1	26.1	(9.3)	(17.2)	(48.6)	36.9	(5.4)	66.5
Infoedge	5.4	44.3	10.8	74.0	88.1	(10.4)	0.9	20.0	2.2	26.7	22.0	(10.1)	25.2	(19.6)	35.7	31.6	30.9
Makemytrip	32.5	29.9	(21.3)	(3.0)	29.0	10.7	8.9	(24.1)	(14.0)	16.9	(10.1)	(8.5)	0.9	(47.8)	28.1	0.3	92.3
Index Performance (%)																	
Nasdaq	5.7	31.0	(2.4)	38.9	47.6	0.3	9.0	8.3	(17.6)	17.4	4.0	1.0	12.7	(10.5)	30.0	12.4	12.9
S&P 500	9.0	19.5	(7.5)	30.0	16.3	(3.1)	4.4	7.2	(14.7)	14.0	3.8	1.2	8.5	(20.0)	20.0	8.5	11.7
Stox 600	-2.0	8.1	(13.7)	23.7	(4.0)	(5.2)	2.9	0.9	(12.3)	12.7	1.5	2.2	5.8	(23.0)	12.6	0.2	10.5
DAX	6.6	13.4	(18.7)	25.5	3.5	(8.0)	3.1	(0.5)	(13.8)	9.2	7.6	0.2	6.6	(25.0)	23.9	3.7	7.5
Nikkei	0.6	19.0	(12.2)	18.2	16.0	(7.7)	6.1	8.1	(17.0)	6.0	0.3	2.3	8.7	(20.0)	17.8	4.0	18.4
MSCI EM	8.5	34.4	(16.6)	15.8	15.8	0.8	(8.0)	(2.0)	(8.1)	9.9	(0.3)	(5.1)	11.4	(23.9)	17.3	8.7	19.3
Bovespa	38.9	26.9	15.0	31.6	2.9	9.8	(13.2)	9.0	10.8	8.6	5.8	3.7	10.4	(36.9)	30.2	(0.5)	25.8
HSCEI	-3.6	25.5	(14.5)	11.8	(3.8)	2.7	(7.7)	(0.5)	(9.3)	13.9	(4.4)	(6.3)	9.5	(14.1)	1.7	(3.7)	14.3
NIFTY IT	-7.4	11.7	25.1	8.8	54.9	8.8	11.8	13.2	(9.2)	8.6	2.0	(2.5)	0.7	(18.5)	15.6	35.2	21.6
NIFTY BANK	6.6	41.4	6.4	18.6	(2.8)	(4.8)	8.7	(4.7)	8.0	12.2	2.2	(6.4)	10.5	(40.5)	11.6	0.4	45.7
NIFTY FMCG	1.7	30.5	14.8	(1.4)	13.5	(1.8)	10.9	2.7	2.6	(0.7)	(2.6)	5.4	(3.3)	(9.3)	10.0	(0.7)	14.5
NIFTY AUTO	10.5	30.2	(22.2)	(10.6)	11.5	(8.7)	(1.0)	(10.4)	(3.8)	(9.6)	(4.9)	(5.5)	10.1	(42.6)	42.0	17.7	16.3
NIFTY ENERGY	19.2	40.8	0.6	10.7	6.4	(7.5)	0.9	17.7	(8.5)	14.7	(2.7)	(3.4)	2.6	(30.1)	29.4	4.4	12.6
NIFTY PHARMA	-15.5	-5.4	(8.0)	(8.8)	60.6	(12.8)	9.8	8.7	(11.6)	6.0	(13.7)	(6.4)	6.5	(10.7)	39.1	17.9	9.7
NIFTY METAL	45.5	49.7	(21.4)	(10.0)	16.2	(11.3)	(2.1)	1.3	(10.7)	(2.2)	(2.1)	(18.1)	14.8	(43.4)	25.6	12.6	45.1
NIFTY INFRA	-2.3	34.1	(11.8)	2.5	12.2	(7.7)	(6.1)	(5.1)	7.1	1.0	5.0	(4.8)	1.5	(27.5)	28.5	1.6	18.5
NIFTY MIDCAP	6.5	47.4	(15.2)	(3.9)	21.9	(10.6)	(3.1)	(5.6)	3.7	2.6	(3.3)	(9.2)	6.7	(31.6)	25.6	15.5	22.7
NIFTY SMALLCAP	2.2	57.5	(29.0)	(8.8)	21.5	(13.6)	(7.9)	(14.3)	4.0	4.3	(7.1)	(9.8)	4.3	(38.4)	28.4	26.2	21.7
NIFTY	2.6	29.3	3.6	12.0	14.9	(3.5)	5.9	2.0	(0.6)	7.0	1.4	(2.7)	6.0	(29.3)	19.8	9.2	24.3
USD/INR	67.4	65.1	68.5	70.4	74.1	65.2	68.5	70.1	72.1	70.5	69.5	70.3	71.4	72.4	75.9	74.4	73.8

Source: Bloomberg, Nirmal Bang Institutional Equities Research, All Prices are as of end of trade on 31 December 2020.

**Exhibit 4: Industry valuation sheet**

	Price	MCap	EPS				P/E				EV/Sales				P/B			
	(Rs)	(US\$ mn)	FY20	FY21	FY22	FY23	FY20	FY21	FY22	FY23	FY20	FY21	FY22	FY23	FY20	FY21	FY22	FY23
TCS	2,863	146,625	86.2	87.1	105.9	120.0	33.2	32.9	27.0	23.9	7.0	6.9	6.0	5.3	13.1	11.9	10.8	9.5
Infosys	1,256	73,014	38.9	45.9	52.1	58.9	32.3	27.4	24.1	21.3	5.7	5.2	4.5	4.0	8.0	7.0	6.5	5.9
Wipro	386	30,132	16.6	17.6	20.6	23.5	23.2	22.0	18.8	16.4	3.1	3.1	2.6	2.2	3.9	4.0	3.4	2.8
HCL Tech	946	35,046	40.8	46.9	53.9	60.8	23.2	20.2	17.6	15.5	3.4	3.2	2.6	2.2	4.8	4.1	3.5	3.0
Tech Mahindra	973	12,851	45.2	50.3	56.9	70.8	21.5	19.4	17.1	13.8	2.0	1.9	1.7	1.5	3.8	3.3	2.9	2.6
Persistent	1,517	1,583	44.4	56.1	75.2	90.1	34.2	27.0	20.2	16.8	3.0	2.6	2.2	1.9	4.7	4.1	3.6	3.1
Mindtree	1,660	3,733	38.3	60.9	73.6	82.3	43.3	27.3	22.6	20.2	3.2	3.1	2.7	2.3	8.3	6.7	5.7	4.9
Coforge	2,705	2,237	78.2	99.5	116.1	-	34.6	27.2	23.3	-	3.4	2.9	2.4	-	6.7	5.8	5.0	-
DXC	26	6,551	2.1	3.2	4.0	5.2	12.3	8.2	6.4	5.0	0.6	0.6	0.5	-	1.1	1.1	1.1	-
Endava	77	4,218	1.1	1.3	1.5	-	71.3	57.1	50.0	-	7.0	5.6	4.5	-	14.7	12.2	10.2	-
Cognizant* (US\$)	82	43,814	3.6	4.0	4.4	5.0	22.5	20.7	18.7	16.5	2.5	2.4	2.1	-	3.9	3.4	3.0	-
Accenture (US\$)	261	172,946	8.2	9.1	9.8	10.4	31.8	28.7	26.6	25.1	3.5	3.2	3.0	2.9	8.5	7.4	6.6	-
Cap Gemini* (Euro)	127	26,142	6.5	7.5	8.5	9.1	19.4	16.9	14.9	13.9	1.7	1.5	1.4	1.2	2.9	2.7	2.4	-
Globant (US\$)	218	8,609	2.4	3.1	3.9	4.4	89.5	69.6	56.4	49.6	10.4	8.2	6.7	-	10.8	10.0	8.6	-
Epam (US\$)	358	20,064	6.3	7.5	9.2	12.2	57.3	47.9	39.0	29.4	7.2	5.8	4.6	3.6	10.5	8.5	6.9	5.5
Cyient	513	770	31.1	36.1	41.8	-	16.5	14.2	12.3	-	1.2	1.1	0.9	-	2.0	1.9	1.7	-
Mphasis	1,540	3,925	65.5	76.6	86.6	-	23.5	20.1	17.8	-	2.8	2.5	2.2	-	4.6	4.2	3.8	-
eClerx	883	421	68.0	73.7	82.8	-	13.0	12.0	10.7	-	1.6	1.3	1.1	-	2.2	2.0	1.9	-
LTI	3,660	8,724	102.8	120.3	138.8	-	35.6	30.4	26.4	-	5.1	4.5	3.8	-	9.8	8.2	6.8	-
LTTS	2,340	3,353	62.7	80.2	95.3	-	37.3	29.2	24.5	-	4.4	3.8	3.2	-	7.6	6.6	5.6	-
Intellect Design	315	570	16.0	19.9	24.0	-	19.7	15.8	13.1	-	2.8	2.4	2.1	-	3.3	2.7	2.4	-
OFSS	3,213	3,773	197.9	216.2	212.8	-	16.2	14.9	15.1	-	-	-	-	-	4.0	3.7	3.9	-
Just Dial	633	534	33.1	36.3	48.0	-	19.1	17.5	13.2	-	3.4	2.5	2.0	-	3.2	2.7	2.2	-
Infoedge	4,758	8,351	24.3	34.8	43.6	-	195.7	136.8	109.2	-	47.6	39.0	33.9	-	15.3	14.4	13.3	-
Makemytrip (US\$)	30	3,049	-0.7	-0.4	0.1	-	-43.7	-70.3	227.2	-	15.2	5.3	3.9	-	4.0	4.3	4.7	-
Genpact*	41	7,831	2.1	2.3	2.5	-	19.7	18.2	16.3	-	2.3	2.2	2.0	-	4.3	3.5	3.1	-
WNS	72	3,602	2.5	3.1	3.4	4.2	29.4	23.5	21.1	17.3	3.8	3.3	2.9	-	5.5	4.7	4.0	3.2
EXL* <sup>+</sup>	85	2,878	3.5	3.8	4.2	4.6	24.7	22.7	20.4	18.7	3.0	2.8	2.5	-	4.2	3.6	2.9	-

Source: Bloomberg, Nirmal Bang Institutional Equities Research, All Prices are as of end of trade on 31 December 2020.

**Exhibit 5: Cumulative rolling returns**

	1 month	3 month	6 month	1 year	3 year	5 year	10 year	15 year	20 year
TCS	4.99	13.93	37.73	34.60	131.72	163.36	504.59	1,702.49	3,021.85
Infosys	10.37	24.72	73.42	74.62	166.17	162.07	268.79	823.98	1,960.90
Wipro	9.47	23.38	76.33	56.56	64.34	89.85	166.41	389.76	486.64
HCL Tech	13.43	16.92	73.24	67.67	121.69	141.94	886.40	1,824.45	2,118.59
Tech Mahindra	7.26	20.53	83.04	32.87	110.15	113.29	546.08	1,193.73	1,193.73
Persistent	25.63	16.37	137.70	118.65	123.57	151.78	716.00	1,039.27	1,039.27
Mindtree	17.62	24.92	82.60	107.78	192.93	156.71	1,297.50	1,784.43	1,784.43
Cognizant	4.18	18.55	46.16	34.18	19.83	47.21	127.10	575.53	6,099.98
Accenture	3.54	16.45	22.64	26.31	77.89	179.67	555.47	1,070.36	2,293.32
Globant SA	14.82	17.98	42.70	101.98	382.29	491.65	1,834.31	1,834.31	1,834.31
Epam Systems INC	8.98	7.25	41.66	65.67	230.58	376.97	2,886.25	2,886.25	2,886.25
Luxoft Holding INC	0.00	0.00	0.00	0.00	6.58	(17.33)	247.00	247.00	247.00
Cap Gemini	9.31	16.76	24.68	15.83	34.16	65.57	334.71	409.09	4.83
Hexaware	0.00	1.14	41.56	43.56	47.39	117.83	980.74	1,030.14	1,982.96
Cyient	6.84	35.33	83.23	23.20	(2.73)	18.39	272.44	644.50	4,524.09
Mphasis	17.50	13.49	81.62	73.40	127.16	261.17	207.64	1,380.31	4,656.71
LTI	9.13	45.55	91.28	107.95	234.02	456.62	456.62	456.62	456.62
LTTS	32.16	48.06	82.68	58.82	126.70	186.81	186.81	186.81	186.81
Intellect Design	12.22	34.41	182.68	122.73	91.23	18.78	362.61	362.61	362.61
OFSS	6.44	5.64	12.73	26.15	(12.30)	1.12	97.32	330.81	1,665.37
Ramco Systems	28.17	34.56	460.25	259.67	14.05	(25.80)	435.38	100.50	54.21
Just Dial	5.59	60.54	58.89	12.02	20.37	(25.30)	19.87	19.87	19.87
Infoedge	13.10	31.83	72.46	85.68	247.41	450.27	1,404.57	6,077.69	6,077.69
Makemytrip	18.93	84.68	93.39	25.45	(5.20)	76.40	8.73	110.93	110.93
<b>Index Performance (%)</b>									
Nasdaq	3.53	11.46	25.85	46.51	104.01	202.50	541.29	784.86	604.88
S&P 500	2.68	11.54	21.54	17.39	47.59	106.07	262.58	304.18	334.19
Stox 600	1.92	10.62	11.39	(2.36)	13.57	32.86	102.69	116.31	119.07
DAX	2.51	7.76	11.89	2.49	6.58	33.41	96.27	151.72	118.11
Nikkei	2.56	18.49	25.06	20.54	24.00	64.08	219.86	119.34	174.55
MSCI EM	5.59	19.30	30.37	18.50	20.79	85.82	46.06	172.67	561.76
Bovespa	6.84	24.65	23.71	0.37	52.80	182.43	70.12	255.20	671.57
HSCEI	0.76	13.72	7.97	(1.38)	(0.05)	40.55	21.50	223.76	1,167.80
NIFTY IT	9.38	21.37	66.28	57.38	123.17	140.77	292.56	704.73	985.95
NIFTY BANK	4.85	40.54	42.25	(2.60)	24.55	88.10	188.59	710.90	3,696.65
NIFTY FMCG	7.80	14.32	15.28	15.75	34.81	83.95	328.33	861.30	1,437.31
NIFTY AUTO	2.30	15.42	37.41	13.58	(19.63)	16.83	142.54	488.70	921.92
NIFTY ENERGY	3.05	12.82	18.56	10.07	29.87	122.81	114.15	351.27	2,072.37
NIFTY PHARMA	7.23	9.26	31.00	61.62	37.01	11.19	170.86	539.74	1,310.55
NIFTY METAL	9.43	45.80	66.34	22.83	(5.66)	118.22	(7.21)	275.73	345.45
NIFTY INFRA	5.12	18.37	21.91	14.61	6.86	42.90	22.01	119.12	332.33
NIFTY MIDCAP	4.72	21.94	41.76	23.15	2.20	63.90	172.20	541.53	2,184.46
NIFTY SMALLCAP	6.88	21.13	53.26	22.19	(19.79)	31.21	90.88	256.40	690.59
NIFTY	6.68	22.79	35.15	16.44	39.79	88.15	162.45	509.74	1,435.40

Source: Bloomberg, Nirmal Bang Institutional Equities Research, All Prices are as of end of trade on 31 December 2020.

**Exhibit 6: Average foreign exchange rates**

	3QFY21	2QFY21	3QFY20	QoQ (%)	YoY (%)
USD-INR	73.8	74.4	71.2	(0.8)	3.6
USD-EUR	0.8	0.9	0.9	(2.0)	(7.2)
USD-GBP	0.8	0.8	0.8	(2.2)	(2.6)
USD-JPY	104.5	106.2	108.7	(1.6)	(3.9)
USD-AUD	1.4	1.4	1.5	(2.3)	(6.6)
USD-BRL	5.4	5.4	4.1	0.3	31.2
USD-CAD	1.3	1.3	1.3	(2.2)	(1.3)

*Note: Positive sign implies appreciation of the USD while negative implies depreciation*

*Source: Bloomberg, Nirmal Bang Institutional Equities Research*

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Team Details:			
Name	Email Id	Direct Line	
Rahul Arora	CEO	rahul.arora@nirmalbang.com	-
Girish Pai	Head of Research	girish.pai@nirmalbang.com	+91 22 6273 8017 / 18
Dealing			
Ravi Jagtiani	Dealing Desk	ravi.jagtiani@nirmalbang.com	+91 22 6273 8230, +91 22 6636 8833
Michael Pillai	Dealing Desk	michael.pillai@nirmalbang.com	+91 22 6273 8102/8103, +91 22 6636 8830

## Nirmal Bang Equities Pvt. Ltd.

### Correspondence Address

B-2, 301/302, Marathon Innova,  
 Nr. Peninsula Corporate Park,  
 Lower Parel (W), Mumbai-400013.

Board No. : 91 22 6273 8000/1; Fax. : 022 6273 8010