

Sector Thematic

Indian IT

Indian IT: raising the bar

We continue to maintain our positive outlook on the sector, following our relative optimism through last year. The bar is raised to positive unchartered territory with the classic bundling of (1) constructive market environment (cloudification, enterprise growth acceleration), (2) in-built and rising competitive advantage, and (3) superior execution (with an upside risk to operational performance). In this note, we examine key trends and growth prospects (top-down scenarios and long-term trends) and assess upside risk to the operating profile (margin sensitivity across key parameters).



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IT Sector

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We continue to maintain our positive outlook on the sector, following our relative optimism through last year (expanding centre of gravity: Aug'20, demand recovery in sight: Jun'20, built to last: Mar'20) and earlier. The bar is raised to positive unchartered territory with the classic bundling of (1) constructive market environment (cloudification, enterprise acceleration), (2) in-built and rising competitive advantage, and (3) superior execution (with an upside risk to operational performance). In this note, we examine key trends and growth prospects (top-down scenarios and long-term trends) and assess upside risk to the operating profile (margin sensitivity across key parameters).

The sector can trade at higher multiples, supported by meaningful acceleration (and improving visibility) in growth/profits, upside risk to margins as efficiencies are retained, better growth distribution across verticals ahead, strong and improving competitive advantage and lower macro risks. Our earnings estimates remain above consensus (5/7% higher for FY22/23E) on both revenue (~2.0/3.5% higher for FY22/23E) and margins, translating to an earnings CAGR of 16% over FY21-23E. The IT index is currently (at 26x 1-yr P/E) trading at a ~50% premium to its 15-year average of 17x; globally Accenture at ~70% premium to its historical multiples, and high growth midtiers such as EPAM/Globant at 1.5-2x TCS' multiples.

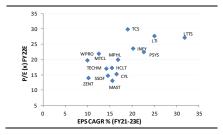
- **Value migration to Indian IT:** The sector's competitive advantage continues to improve (~50% of incremental market share within global majors) and the pandemic has further unleashed sectoral tailwinds of a multi-year accelerated digitisation/cloudification. Tier-1 IT incremental revenue addition is set to double as compared to prior period addition, translating to a 12% CAGR in USD revenue over FY21-23E.
- Favourable denominator effect: Enterprise clients' (n=96) growth is accelerating and 12% CAGR for Tier-1 IT implies 7pp growth premium over enterprise growth vs. prior period growth premium of 5pp.
- Broadening of vertical growth drivers and improving partner synergies: While BFSI vertical is expected to roll steady (rising tech spend-%), Manufacturing, E&U and Retail CPG are expected to accelerate (deal flow is up) and improve the distribution of growth (positive read-through for ER&D, HCLT). While synergies between hyperscalers/SaaS and Indian IT are improving, alignment via investments in sales/delivery is creating strong net new opportunities for the sector.
- Improving operational rigour and margin sensitivity: The cost of delivery has arguably peaked in FY20 and we expect the sector margins at 10-year average (margin outperformance from 3Q levels expected in TCS, LTTS, Mphasis, PSYS). The prospects of retaining the current elevated levels of offshoring are high and present an upside risk to margins (Mphasis/Mindtree). Our base case margin assumption factors 3/8% CAGR in onsite/offshore wage increase and we expect travel to revert to ~60% of pre-pandemic levels. Better throughput is expected based on higher utilisation and offshoring, favourable supply-side scenario (both onsite and offshore), and demand fulfilment factors (training, lower sub-con).

Top Picks: Infosys, HCL Tech, Persistent, Mphasis and Sonata

Company	CMP* (Rs)	RECO	TP (Rs)
TCS	3,197	ADD	3,435
Infosys	1,276	BUY	1,580
HCL Tech	934	BUY	1,110
Wipro	432	ADD	470
Tech Mahindra	982	BUY	1,080
LTI	3,971	ADD	4,280
Mphasis	1,556	BUY	1,740
Mindtree	1,665	ADD	1,735
LTTS	2,421	REDUCE	2,175
Persistent	1,499	BUY	1,675
Cyient	635	ADD	680
Zensar	238	ADD	260
Sonata	398	BUY	430
Mastek	1,112	BUY	1,420

*CMP as on 28th Jan 2021





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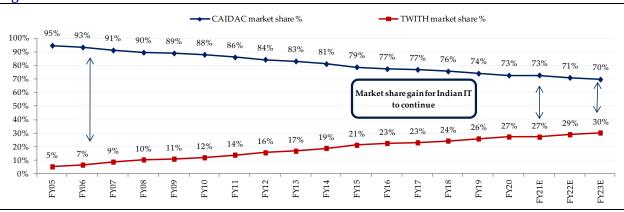
Focus Charts

IT services growth outlook by verticals based on premium to enterprise growth

	Enterprise growth	IT services growth base	d on historical growth premit	am to enterprise growth
Verticals	FY21-23E	@ 0.5x of historical growth premium	@ historical premium	@ 1.5x of historical premium
BFSI	3.7%	5.2%	6.8%	8.3%
Manufacturing	10.5%	13.3%	16.1%	19.0%
Healthcare	6.7%	7.9%	9.1%	10.3%
Energy & Utilities	10.8%	16.3%	21.9%	27.5%
Retail & CPG	5.9%	8.9%	11.9%	14.9%
Hi-tech	4.5%	6.3%	8.2%	10.1%
Telecom & Media	3.4%	3.6%	3.8%	4.1%
Total	5.4%	8.1%	10.2%	12.4%

Source: HSIE Research, Bloomberg

Value migration towards Indian IT continues



Source: Company, HSIE Research, Bloomberg; CAIDAC denotes aggregate of Cognizant, Accenture, IBM services, DXC, Atos, Capgemini & TWITH denotes TCS, INFY, HCLT, WPRO IT services, TECHM aggregate

EBIT margins impact due to offshoring increase and currency

Manain Insurant		C	Off-shoring increase (% of rev)									
Margin Impact	bps	1%	2%	4 %	6%	8%						
	-2%	-25	0	50	100	150						
	-1%	0	25	75	125	175						
Currency Depreciation (%)	0%	25	50	100	150	200						
Depreciation (70)	1%	50	75	125	175	225						
	2%	75	100	150	200	250						

EBIT margins impact due to onsite and offshore wage hike

Manain Insurant			Offshore Wage Increase %								
Margin Impact	bps	2.0%	3.0%	5.0%	6.0%	7.0%					
	0.0%	-56	-84	-139	-167	-195					
	1.0%	-107	-135	-191	-219	-246					
Onsite Wage Increase %	1.5%	-133	-161	-216	-244	-272					
merease /6	2.0%	-159	-186	-242	-270	-298					
	2.5%	-184	-212	-268	-296	-324					

EBIT margins impact due to US & Europe wage hike

Manaia Insurant			US Wage Increase %									
Margin Impact	bps	1.0%	1.5%	2.0%	2.5%	3.5%						
	1.0%	-43	-58	-72	-87	-116						
	1.5%	-50	-65	-79	-94	-123						
Europe Wage Increase %	2.0%	-57	-72	-86	-101	-130						
increase /6	2.5%	-64	-79	-93	-108	-137						
	3.5%	-79	-93	-108	-122	-151						

Source: Company, HSIE Research

EBIT margin sensitivity based on onsite & offshore wage hike

FY23E Margin %		Onsite Wage Hike CAGR FY20-23%								
F123E IVIA	irgin %	2.0%	2.5%	3.0%	3.5%	4.0%				
	6.4%	25.6%	25.0%	24.4%	23.8%	23.3%				
Offshore	7.4%	25.2%	24.6%	24.0%	23.4%	22.9%				
Wage hike CAGR	8.4%	24.7%	24.2%	23.6%	23.0%	22.4%				
FY20-23E	9.4%	24.3%	23.8%	23.2%	22.6%	22.0%				
	10.4%	23.9%	23.3%	22.8%	22.2%	21.6%				

IT: Sector Thematic



IT sector (coverage universe) valuations

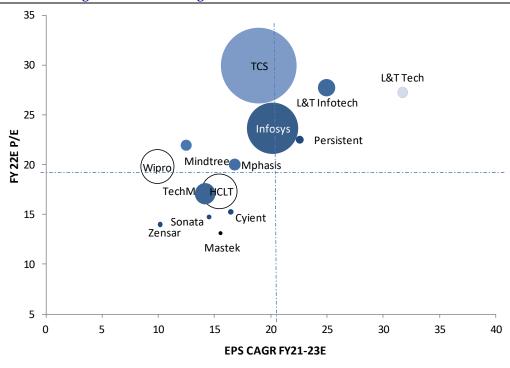
Company	MCap	CMP	TP	RECO		EPS	(Rs)			P /1	E (x)			Ro	E (%)		\$ Rev CAGR%	EPS CAGR%
. ,	(Rs bn)	(Rs)	(Rs)		FY20	FY21E	FY22E	FY23E	FY20	FY21E	FY22E	FY23E	FY20	FY21E	FY22E	FY23E	FY21- 23E	FY21- 23E
TCS	11,824	3,197	3,435	ADD	87.4	89.7	109.9	126.9	36.6	35.6	29.1	25.2	37.3	40.3	48.4	51.1	12.8	19.0
Infosys	5,425	1,276	1,580	BUY	38.6	45.2	56.0	65.3	33.0	28.2	22.8	19.5	25.2	27.8	30.8	31.9	14.5	20.2
HCL Tech	2,534	934	1,110	BUY	40.8	47.4	54.8	63.2	22.9	19.7	17.1	14.8	23.8	23.2	23.4	23.6	11.8	15.4
Wipro	2,377	432	470	ADD	17.0	19.8	22.1	23.9	25.3	21.8	19.5	18.0	17.3	19.8	21.9	22.4	7.0	9.9
TechM	948	982	1,080	BUY	48.3	50.2	57.0	65.5	20.3	19.5	17.2	15.0	20.2	19.4	20.3	21.4	8.2	14.2
Tier-1 IT Median									25.3	21.8	19.5	18.0	23.8	23.2	23.4	23.6	11.8	15.4
LTI	691	3,971	4,280	ADD	87.3	109.9	140.4	171.6	45.5	36.1	28.3	23.1	29.5	31.6	32.3	31.5	18.1	25.0
Mphasis	290	1,556	1,740	BUY	61.3	66.1	79.6	90.2	25.4	23.5	19.5	17.2	20.6	20.1	21.8	21.9	11.6	16.8
Mindtree	274	1,665	1,735	ADD	40.5	70.5	79.3	89.2	41.2	23.6	21.0	18.7	19.5	31.4	29.6	27.1	11.8	12.5
L&T Tech	253	2,421	2,175	REDUCE	72.0	58.9	86.3	102.1	33.6	41.1	28.1	23.7	28.6	19.9	24.1	24.1	14.7	31.7
Persistent	115	1,499	1,675	BUY	47.0	55.8	68.4	83.9	31.9	26.8	21.9	17.9	14.4	16.8	18.1	19.3	13.4	22.6
Cyient	70	635	680	ADD	33.9	32.7	37.6	44.4	18.7	19.4	16.9	14.3	14.5	13.6	14.8	16.4	10.5	16.5
Zensar	54	238	260	ADD	11.5	15.7	17.0	19.1	20.7	15.1	14.0	12.5	12.7	16.0	15.8	16.3	7.6	10.2
Sonata	41	398	430	BUY	26.7	24.2	27.4	31.7	14.9	16.5	14.5	12.6	38.5	35.1	35.2	35.9	11.7	14.5
Mastek	32	1,112	1,420	BUY	51.5	73.2	85.3	97.7	21.6	15.2	13.0	11.4	17.4	24.0	23.4	22.5	13.7	15.5
Tier-2 IT AVG									25.2	21.7	17.9	15.2	20.8	22.0	22.7	22.9	12.5	19.1
Mid Tier IT Median									21.9	20.2	18.0	15.6	19.5	20.1	22.8	22.5	11.8	16.5
GLOBAL PEERS																		
Company	MCap (USD	CMP USD	TP	RECO		EPS	(USD)			P /1	E (x)			Ro	E (%)		\$ Rev CAGR% FY21-	EPS CAGR% FY21-
	bn)				FY20	FY21E	FY22E	FY23E	FY20	FY21E	FY22E	FY23E	FY20	FY21E	FY22E	FY23E	23E	23E
Accenture	165	249	NA	NR	7.5	8.3	9.0	9.8	33.4	30.0	27.6	25.4	32.5	29.6	28.5	27.9	4.6	5.7
Cognizant	42	79	NA	NR	4.0	3.7	4.0	4.4	19.8	21.6	19.9	17.9	16.4	14.8	16.9	16.2	3.6	6.5
Capgemini^	20	120	NA	NR	6.8	6.5	7.5	8.5	17.7	18.3	16.0	14.1	10.8	12.8	15.1	16.3	3.5	9.0
EPAM	20	349	NA	NR	5.4	6.3	7.5	9.2	64.4	55.7	46.5	37.8	18.3	20.6	20.3	20.3	14.3	13.8
Globant	8	200	NA	NR	2.3	2.4	3.1	3.9	87.5	82.5	63.8	51.4	13.9	13.6	13.3	15.4	15.5	17.1
Tieto EVRY^	3	27	NA	NR	1.7	2.2	2.2	2.5	15.6	12.4	12.1	10.9	7.3	5.3	13.4	15.0	1.7	4.4
Global IT AVG									39.7	36.8	31.0	26.2	16.5	16.1	17.9	18.5	7.2	9.4
Global IT Median									26.6	25.8	23.8	21.7	15.2	14.2	16.0	16.2	4.1	7.8

Source: HSIE Research, Bloomberg, ^CMP, MCap and EPS in EUR terms, CMP as on 28th Jan 2021

Rating and multiple changes:

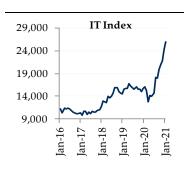
• **Cyient:** We raise Cyient's P/E multiple to 16x (vs. 14x earlier and is ~20% premium to 5Y average, 30% discount to LTTS) based on improving growth outlook in services business and stability in margin profile. We estimate +11/16% revenue/EPS CAGR over FY21-23E.

IT sector P/E (FY22E) and EPS growth (FY21-23E) grid



Source: HSIE Research, Note: Size of Bubble represents M-cap

IT index is up 20.7% in 3M period, 61% in 1Y and has outperformed NIFTY in past 3/10 years



Stock performance (%	,)
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Companies	1M (%)	3M (%)	6M (%)	12M (%)	3Yr (%)	5Yr (%)	10Yr (%)
TCS	7.3	19.4	38.1	45.9	92.6	150.3	410.1
Infosys	0.8	17.3	32.1	59.7	107.8	100.7	195.2
HCL Tech	-0.8	10.6	33.8	52.5	78.9	106.6	646.4
Wipro	11.1	26.7	54.4	73.4	73.7	75.8	127.6
TechM	1.1	21.5	44.5	21.7	59.5	94.7	1046.0
LTI	7.3	32.1	61.6	98.5	207.4	NA	NA
Mphasis	1.4	19.1	38.6	69.1	73.8	208.0	113.5
Mindtree	0.8	24.0	53.9	84.6	115.5	118.1	1177.8
LTTS	3.9	45.2	65.6	43.4	90.4	NA	NA
Persistent	1.3	28.8	69.9	115.3	84.3	117.4	636.2
Cyient	21.3	54.4	92.2	27.3	-6.3	39.4	272.8
Zensar	0.0	26.7	49.0	34.9	26.3	32.3	655.0
Sonata	1.7	21.2	53.0	13.1	30.7	143.4	869.9
Mastek	-4.7	42.3	131.2	163.8	149.1	790.1	525.2
NSE IT	5.9	20.7	40.7	61.0	96.7	128.5	301.5
Nifty 50	-0.1	17.7	25.2	20.4	36.6	109.3	213.1

Source: Bloomberg, HSIE Research, CMP as on 28th Jan 2021

Note:

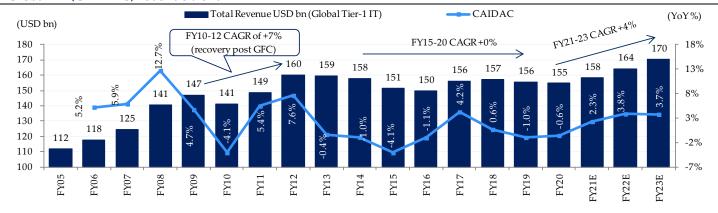
Green indicates out-performance to Nifty 50 during the respective period Red indicates under-performance to Nifty 50 during the respective period



Value migration to Indian IT

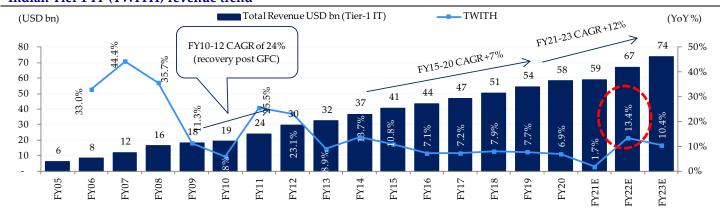
- Value migration to Indian IT continues from Global IT with ~50% of incremental market-share expected to swing to Tier-1 Indian IT, as compared to the current revenue share of ~27%. Competitive advantage for Indian IT continues could improve across metrics and the pandemic has further unleashed the sectoral tailwinds of a multi-year accelerated digitisation/cloudification.
- As a sub-set of global IT services (~USD 1T), we calculate the trends using the major-10 (USD 213bn forming a majority of outsourced IT), including global IT services or CAIDAC (Cognizant, Accenture, IBM services, DXC, Atos, Capgemini), a USD 155bn revenue pool and TWITH (TCS, INFY, HCLT, WPRO, TECHM), a USD 58bn revenue pool. Industry consolidation (Atos-DXC) or fragmentation (IBM-NewCo spinoff) are unlikely to have a material impact on the existing dynamics for Indian IT. In this report, we have outlined some of the super-set factors that determine growth such as trends in enterprise clients and the partner ecosystem. Most of the factors remain favourable to Indian IT.
- The incremental revenue addition for tier-1 IT is expected to double over FY21-23 with USD 7.4bn annual incremental revenue as compared to USD 3.5-4.3bn annual incremental over the past ten years. With this, we expect IT sector to post USD revenue growth of 13.5/10.5% over FY22/23E, following 1.7% in FY21E (7.4% over FY15-20). The upside potential continues from the longevity of high-growth period (both magnitude and tenure) as well as the residual factors of improving cash flows and resilient operations and balance sheet (set for higher payouts).

Global IT (CAIDAC) revenue trend



Source: Company, HSIE Research; CAIDAC denotes aggregate of Cognizant, Accenture, IBM services, DXC, Atos, Capgemini aggregate

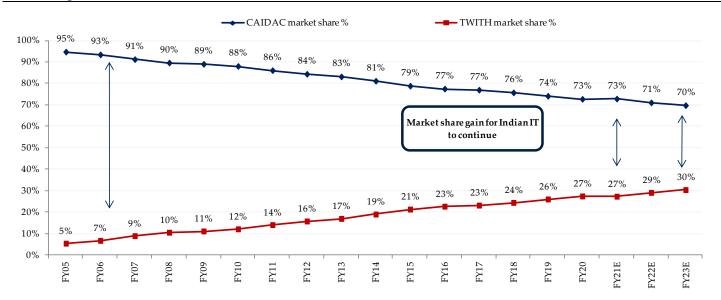
Indian Tier 1 IT (TWITH) revenue trend



Source: Company, HSIE Research; TWITH denotes TCS, INFY, HCLT, WPRO IT services, TECHM aggregate

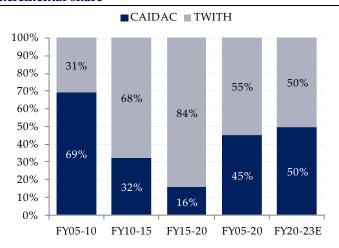


Value migration towards Indian IT continues



Source: Company, HSIE Research, Bloomberg; CAIDAC denotes aggregate of Cognizant, Accenture, IBM services, DXC, Atos, Capgemini & TWITH denotes TCS, INFY, HCLT, WPRO IT services, TECHM aggregate

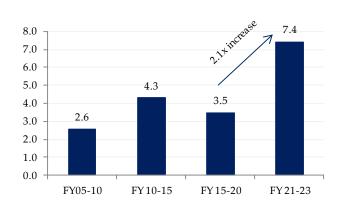
Indian IT at 27% marketshare but gaining 50% of incremental share



Source: Company, HSIE Research; CAIDAC denotes aggregate of Cognizant, Accenture, IBM services, DXC, Atos, Capgemini & TWITH denotes TCS, INFY, HCLT, WPRO IT services, TECHM aggregate

Indian IT (incremental revenue add) to grow by 2.1x in FY21-23 vs FY15-20 (USD bn)

■ TWITH Annual Inremental revenue addition per year..



Source: Company, HSIE Research; TWITH denotes TCS, INFY, HCLT, WPRO IT services, TECHM aggregate

Significant growth outperformance of Indian IT

Company	CAGR	CAGR	CAGR
Company	5-YR	10-YR	15-YR
IBM	-4%	-2%	0%
Accenture	7%	7%	7%
DXC	-7%	-7%	-4%
Cognizant	10%	18%	25%
Capgemini	3%	3%	5%
Atos	2%	7%	5%
Total CAIDAC	0%	1%	2%
TCS	7%	13%	16%
INFY	8%	10%	15%
HCLT	11%	14%	19%
WPRO	3%	7%	12%
TECHM	7%	18%	24%
Total TWITH	7%	12%	16%
Sector	2%	3%	4%

Source: Company, HSIE Research

Tier 1 Indian IT incremental revenue ahead of global peers

peers				
Incremental Revenue (\$ bn)	FY05-10	FY 10-15	FY 15-20	FY 21-23
IBM	8.8	-0.1	-10.9	1.4
Accenture	6.0	9.3	12.1	6.8
DXC	7.1	-13.0	-8.3	-0.7
Cognizant	2.7	7.0	6.5	2.0
Capgemini	3.9	2.3	2.4	2.2
Atos	0.6	4.8	1.5	0.5
Total CAIDAC	29.1	10.3	3.2	12.2
TCS	4.1	9.1	6.6	6.0
INFY	3.2	3.9	4.1	4.3
HCLT	1.9	3.1	4.1	2.5
WPRO	2.9	2.7	1.2	1.2
TECHM	0.8	2.7	1.5	0.9
Total TWITH	13.0	21.5	17.4	14.9
Sector	42.1	31.9	20.7	27.1

Source: Company, HSIE Research

Indian IT growth premium vs. global peers across cycles

Company	CAGR % FY05-10	CAGR % FY 10-15	CAGR % FY 15-20	CAGR % FY 21-23
IBM	4%	0%	-4%	2%
Accenture	6%	7%	7%	7%
DXC	4%	-7%	-7%	-2%
Cognizant	41%	26%	10%	6%
Capgemini	9%	4%	3%	6%
Atos	2%	11%	2%	2%
Total CAIDAC	5%	1%	0%	4%
TCS	23%	20%	7%	13%
INFY	25%	13%	8%	15%
HCLT	29%	17%	11%	12%
WPRO	25%	10%	3%	7%
TECHM	36%	30%	7%	8%
Total TWITH	25%	16%	7%	12%
Sector	6%	4%	2%	6%

Source: Company, HSIE Research

Market share gain by Tier 1 Indian IT vs global peers

Incremental Market Share (%)	FY05-10	FY 10-15	FY 15-20	FY 21-23
IBM	21%	0%	-53%	5%
Accenture	14%	29%	59%	25%
DXC	17%	-41%	-40%	-3%
Cognizant	6%	22%	32%	7%
Capgemini	9%	7%	12%	8%
Atos	1%	15%	7%	2%
Total CAIDAC	69%	32%	16%	45%
TCS	10%	29%	32%	22%
INFY	8%	12%	20%	16%
HCLT	5%	10%	20%	9%
WPRO	7%	8%	6%	4%
TECHM	2%	9%	7%	3%
Total TWITH	31%	68%	84%	55%

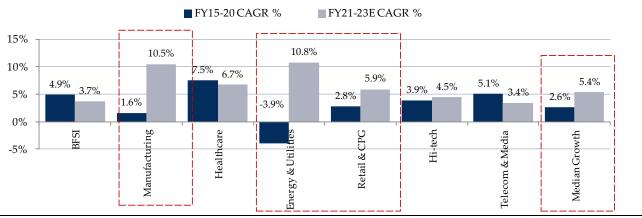
Source: Company, HSIE Research



Favourable denominator effect: enterprise and ecosystem trends

- We have looked at key super-set/ denominator factors such as growth trends/outlook in enterprise clients of Indian IT and growth trends in SaaS/hyperscaler partners to (1) determine the top-down growth trajectory for the sector and look for anomalies (vs. our bottom-up estimates), (2) evaluate the nature of growth (vertical trends) based on the consensus outlook on enterprises, and (3) monitor core growth metrics of large SaaS/hyperscalers.
- Key observations are as follows: (1) acceleration in enterprise growth as enterprises (predominantly US based clients at n=96) revenue growth rate is expected to accelerate to 5.4% CAGR over FY21-23 as compared to 2.6% CAGR over FY15-20. (2) Manufacturing, E&U and Retail & CPG are expected to accelerate the fastest as compared to its prior period. (3) BFSI vertical is expected to be stable large banks' tech spends (%) continue to rise. (4) IT sector growth over FY21-23E implies ~1.5x of historical growth premium over enterprise growth (historically tier-1 IT growth at 5pp (505bps) premium over enterprise growth of 2.6% CAGR). (5) Historically, IT services growth premium to enterprises was the highest in E&U, Retail & CPG and Manufacturing verticals (>7pp growth premium) and the least in Telecom & Media. (6) Growth mix is fairly broad-based across verticals.

Broad-based uptick - enterprise clients growth trends across industries/verticals



Source: HSIE Research, Bloomberg; n=96 for Enterprise clients data that are largely US based

Large enterprise revenue growth by industries to accelerate

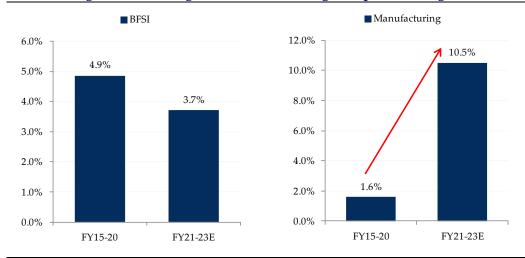
Verticals	FY15-20 CAGR %	FY21-23E CAGR %
BFSI	4.9%	3.7%
Manufacturing	1.6%	10.5%
Healthcare	7.5%	6.7%
Energy & Utilities	-3.9%	10.8%
Retail & CPG	2.8%	5.9%
Hi-tech	3.9%	4.5%
Telecom & Media	5.1%	3.4%
Median Growth	2.6%	5.4%

Source: HSIE Research, Bloomberg; n=96 for Enterprise clients data that are largely US based



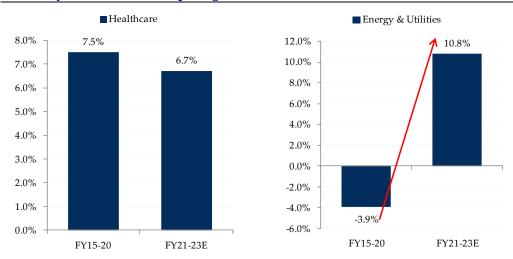
Enterprise growth trends

BFSI sector growth flattening, while Manufacturing enterprises to surge



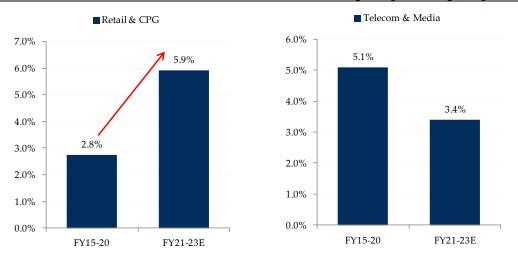
Source: HSIE Research, Bloomberg; BFSI n=27, Manufacturing n=13

Recovery seen in E&U enterprise growth



Source: HSIE Research, Bloomberg; Healthcare n=10, E&U n=7

Retail & CPG to accelerate, while Telecom & Media enterprise growth tapering



Source: HSIE Research, Bloomberg; Retail & CPG n=10



IT services growth by verticals, share of revenue and growth premium over enterprise clients' revenue growth

Verticals	FY15-20	+/- (bps) over Enterprise growth	% of revenue
BFSI	7.9%	308	28%
Manufacturing	7.2%	565	12%
Healthcare	9.9%	236	13%
Energy & Utilities	7.2%	1,113	10%
Retail & CPG	8.7%	599	14%
Hi-tech	7.7%	379	10%
Telecom & Media	5.5%	43	12%
Median Growth	7.7%	505	
TWITH Revenue Growth	7.4%		
TWITH NorthAm Growth	8.3%		

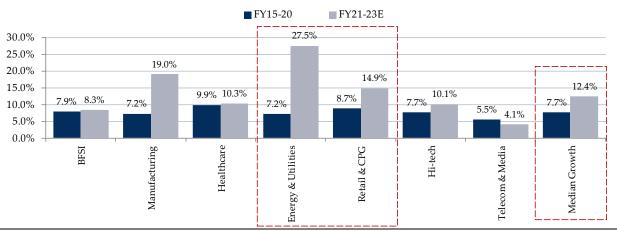
Source: HSIE Research, Bloomberg; TWITH implies aggregation of TCS, INFY, HCLT, WPRO, TECHM

IT services growth outlook by verticals based on premium to enterprise growth

	Enterprise growth	IT services growth based on historical growth premium to enterprise grow					
Verticals	FY21-23E	@ 0.5x of historical growth premium	@ historical premium	@ 1.5x of historical premium			
BFSI	3.7%	5.2%	6.8%	8.3%			
Manufacturing	10.5%	13.3%	16.1%	19.0%			
Healthcare	6.7%	7.9%	9.1%	10.3%			
Energy & Utilities	10.8%	16.3%	21.9%	27.5%			
Retail & CPG	5.9%	8.9%	11.9%	14.9%			
Hi-tech	4.5%	6.3%	8.2%	10.1%			
Telecom & Media	3.4%	3.6%	3.8%	4.1%			
Total	5.4%	8.1%	10.2%	12.4%			

 $Source: HSIE\ Research,\ Bloomberg$

Retail & CPG, Manufacturing, E&U verticals expected to drive incremental growth in IT services



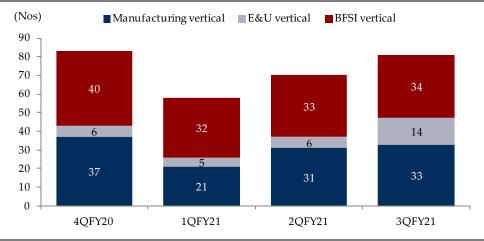
Source: HSIE Research, Bloomberg



Broadening of vertical growth drivers

- Deal flow has increased in verticals that were more severely impacted by the pandemic such as Manufacturing and Energy & Utilities due to return to factory operations and recovery in supply chain, and which are driven by cost take-out focus and digital solutions.
- Manufacturing, E&U and Retail & CPG verticals can be the growth drivers for the sector, based on enterprise client trends, and can contribute >55% of incremental growth over the next two years. Quarterly deal wins (as reported within coverage universe) have increased by >2x (volume terms) in the E&U vertical since pre-pandemic and higher by >50% in the Manufacturing vertical from 1QFY21. HCLT (BUY) has the highest exposure in these verticals (combined) and may be a disproportionate beneficiary apart from ER&D pure plays such as LTTS (REDUCE), Cyient (ADD), Tata Elxsi (Not Rated).
- Deal activity in the Manufacturing vertical has picked up, partly reflecting in the digital engineering segment and also supported by the automotive sub-segment. Key large wins such as Daimler-Infosys, Marelli-Wipro, Schindler-LTTS are validation. Increased investments are directed towards digital manufacturing and IoT technologies. E&U deal activity has accelerated too, and some key wins recently in the sector include Con Ed-Infosys, Fortum-Wipro, O&G vertical-LTTS.
- The BFSI vertical is expected to be stable supported by continued increase in tech spends across large US banks. Also, Europe BFSI is expected to recover and trend closer to US BFSI growth (as compared to a steep discount to US), based on consensus outlook on enterprises across geographies.

Deal activity (nos) acceleration in Manufacturing and E&U vertical, stable BFSI



Source: Company, HSIE Research

Stability in BFSI with tech spend as a % of revenue continuing to increase

Tech spend as % of Revenue	CY16	CY17	CY18	CY19	1QCY20	2QCY20	3QCY20	4QCY20
JPMorgan Chase	7.2%	7.7%	8.1%	8.5%	9.1%	7.9%	8.8%	8.9%
Bank of America	5.8%	5.2%	5.0%	5.1%	5.3%	5.7%	6.6%	7.0%
Wells Fargo	2.5%	2.6%	2.9%	3.4%	4.5%	3.8%	4.2%	4.7%
Citigroup	9.5%	9.5%	9.9%	9.5%	8.3%	8.8%	10.9%	12.3%
Aggregate	6.1%	6.2%	6.4%	6.7%	7.1%	6.7%	7.7%	8.2%

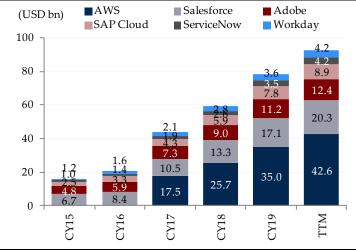
Source: Company, HSIE Research



Cloud-led growth in partner ecosystem

- Investments by service providers in setting up separate hyperscaler units and more synergies between hyperscalers and service providers in the multi-cloud architecture of enterprises with (1) customisation/verticalisation opportunities, (2) co-innovation partnerships with SaaS companies to drive plug and play, tailor-made solutions as development cycles compress, are some drivers that enable net new addition for Indian IT.
- Leading SaaS and hyperscalers combined revenue growth is at a healthy ~30% with higher growth in hyperscalers. This massive shift in the technology stack towards hyperscalers/SaaS away from data centres and on premise software continues to create large net new opportunity for Indian IT services, which continue to align more around sales and delivery functions.

Growing cloud ecosystem drivers – leading hyperscaler & SaaS revenue trend



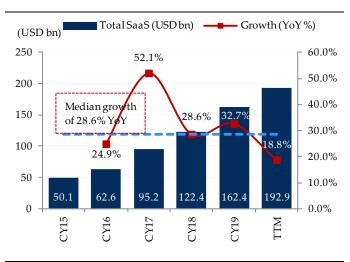
Source: Company, HSIE Research

Indian IT partnership with Google Cloud

Services partners	Specialisation & Expertise
TCS	Contact centre AI
Infosys	Cloud Migration, Data Analytics
HCL Tech	Cloud Migration, SAP on Google Cloud, Infrastructure
Wipro	Cloud Migration, Work Transformation - Enterprise, Security; SAP on Google Cloud
Tech Mahindra	SAP on Google Cloud - Automotive, Healthcare & Life Sciences; GCP, Google Workplace
LTI	SAP on Google Cloud
Mphasis	GCP
Mindtree	Google Cloud Analytics, Google Cloud Compute

Source: Company, HSIE Research

SaaS growth at 28.6% YoY



Source: Company, HSIE Research, constituents of Nasdaq Emerging Cloud Index

Salesforce penetration

Company	Salesforce consulting Certified
Company	Experts (Nos)
Accenture	6,751
Deloitte	4,015
Cognizant	3,771
TCS	2,210
Capgemini	2,161
IBM	2,051
Wipro	1,809
Infosys	1,782
PwC	1,367
Persistent	927
NTT	826
Tech Mahindra	776
HCL Tech	379
LTI	193

Source: Company, HSIE Research



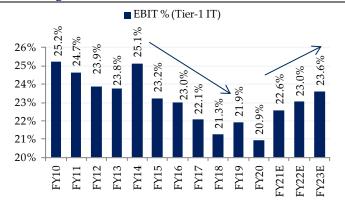
Margin analysis: upside risk assessment

We expect the sector to operate near the 10-year average margins, as the cost of delivery has arguably peaked out in FY20. In this section, we have dissected the various moving parts in the profitability of the sector and looked at margin scenarios & sensitivity under the variables of (1) onsite (US and Europe) wage inflation, (2) offshore wage inflation, (3) offshoring and (4) currency.

We evaluate the framework for the upside risk to our current margin estimates, based on a variety of direct and indirect cost factors such as (1) variability in the levels of offshore/utilisation, (2) fulfilment factors such as sub-contracting, the supply scenario with easing dynamics around onsite supply (H1B, near optimal locatisation), (3) travel (factored at reverting to ~60% of pre-pandemic), and (4) FX. Our current estimates factor in flat margin for TCS in FY22 (vs. 3QFY21) and ~100bps decline for other tier-1s as compared to 3QFY21 margin levels as wage hikes kick in. From the mid-tiers, LTTS, Mphasis, PSYS and Sonata/Mastek are expected to outperform operationally (+140bps to -20bps range) vs. their 3QFY21 margin levels. In 9MFY21, INFY, HCLT, LTI and Mindtree have been the strongest margin gainers.

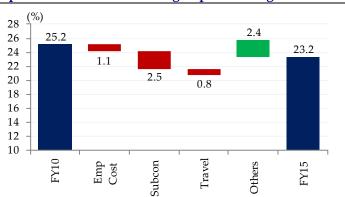
Prospects of better throughput from better utilisation and offshoring: The employee cost impact on margin for Indian Tier-1 IT is reducing with (1) growth acceleration, (2) favourable supply-side scenario (attrition in check and remote working improving prospects of higher utilisation), and (3) lower demand-supply mismatch courtesy increased training/skilling and thereby better demand alignment with lower dependence on sub-contracting. Some of these trends can take bigger shape, especially with sustainably higher utilisation and offshoring.

Indian tier-1 IT margin trended lower, but to normalise at 10Y average



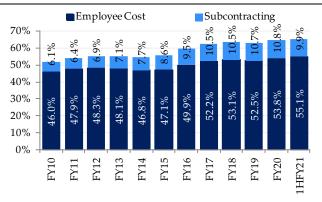
Source: Company, HSIE Research; Tier-1 Indian IT includes TCS, INFY, HCLT, WPRO IT services and TECHM

Margin bridge FY10-15: employee cost and higher dependence on subcontracting impacted margin



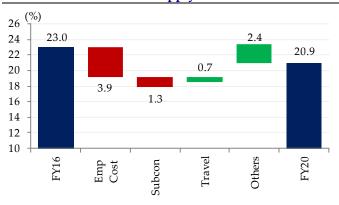
Source: Company, HSIE Research, EBIT Margin for TWITH (TCS, INFY, HCLT, WPRO IT services and TECHM)

Cost of delivery as a % of total revenue increased to ~65% in FY20 vs ~60% in FY16



Source: Company, HSIE Research; Tier-1 Indian IT includes TCS, INFY, HCLT, WPRO IT services and TECHM

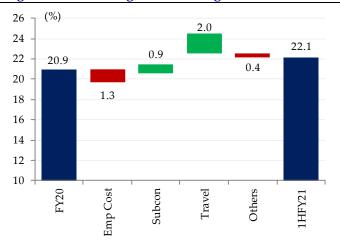
Wage impact intensified during FY16-20 on higher onsite investments and supply-side constraints



Source: Company, HSIE Research, EBIT Margin for TWITH (TCS, INFY, HCLT, WPRO IT services and TECHM)

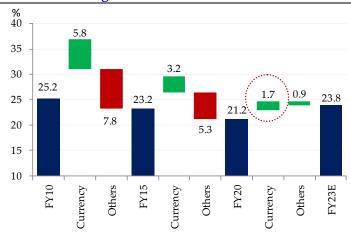


Margin bridge: expansion in 1HFY21 achieved due to lower travel expenses, decline in subcon, deferral of wage increase and higher offshoring



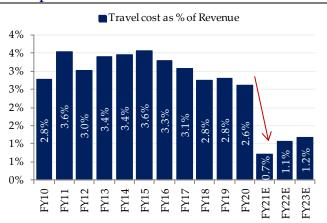
Source: Company, HSIE Research, EBIT Margin for TWITH (TCS, INFY, HCLT, WPRO IT services and TECHM)

Currency a major lever: benefit from currency to normalise during FY20-23E



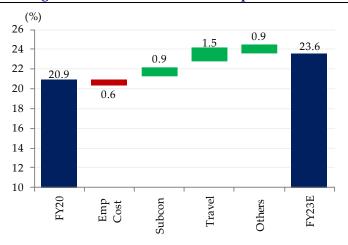
Source: HSIE Research; Margin trend is for TCS, INFY, HCLT, WPRO IT services and TECHM $\,$

Travel cost has come down sharply, will stabilise at ~60% of pre covid level



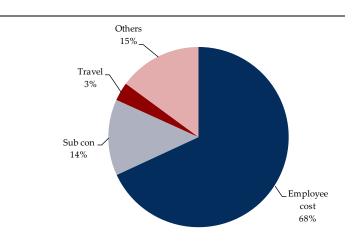
Source: HSIE Research; Trend is for TCS, INFY, HCLT, WPRO IT services and TECHM

Margin levers like offshoring, normalised onsite wage, travel and lower subcon to aid margin expansion during FY20-23E (reflected in 9MFY21 performance)



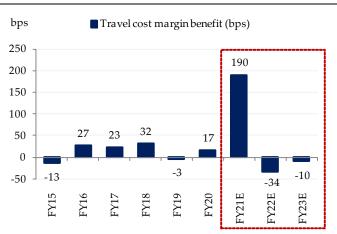
Source: Company, HSIE Research, EBIT Margin for TWITH (TCS, INFY, HCLT, WPRO IT services and TECHM)

Cost breakup for Tier-1 IT (FY20)



Source: Company, HSIE Research; Tier-1 Indian IT includes TCS, INFY, HCLT, WPRO IT services and TECHM

Travel tailwind in FY21E to reverse in FY22-23E for Tier-1 IT



Source: Company, HSIE Research; Tier-1 Indian IT includes TCS, INFY, HCLT, WPRO IT services and TECHM



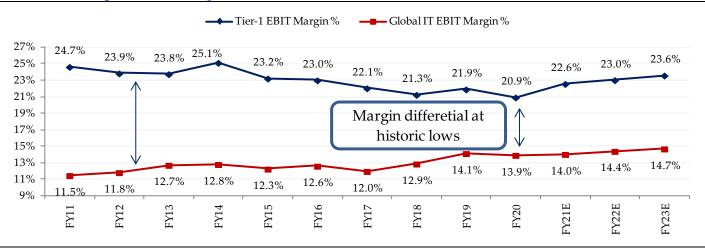
Improving operational rigour compared to global peers

Margin differential to improve relative to global peers: Interestingly, the gap between Indian IT and Global IT has been declining over the past decade despite the growth premium of Indian IT. This gap is currently at 7pp vs. the decade average of 10.3pp. Global IT margins have increased (13.9% in FY20 vs. 11.5% in FY11) due to shift to offshore delivery (Capgemini offshore employee percentage increased from 31% to 57% in ten years and Accenture's offshore headcount increased from 37% to 51% in five years) and the reverse for Indian IT. We expect this gap to normalise to ~8.5%, which is the midpoint of the current difference and decade average, based on absolute factors supporting Indian IT margins and potential upside risks to offshoring and utilisation.

The revenue/employee for Indian IT has been stable at ~USD 51K, while Global IT revenue/employee declined to (~USD 78K). Global revenue productivity was ~2.7x of Indian IT in FY10, which has now moderated to 1.5x in FY20. Increase in the onsite-mix, higher penetration (faster than global peers) of digital (relatively less linear) and stable pricing for Indian IT have led to this relative improvement in overall revenue productivity (Indian IT at ~65% of global revenue productivity level).

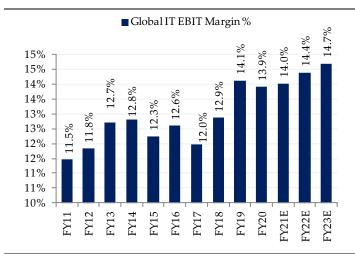
EBIT/employee for Indian Tier-1 IT is at a similar level to Global IT (~USD 11K). This despite TWITH cost/employee increasing at a 10Y CAGR of 3.5% vs. a decline of 3.6% for Global IT, signifying stronger operational rigour to maintain profit unit parity and margins being mostly a function of cost of fulfilment relative to the delivery location.

Indian Tier 1 companies EBIT margin trend



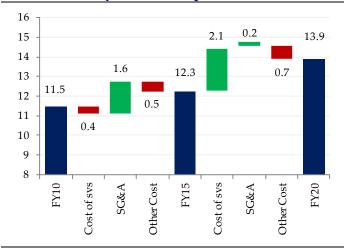
Source: Company, HSIE Research, Bloomberg; Tier 1 Indian IT includes TCS, INFY, HCLT, WPRO, TECHM aggregate, Global IT is ACN, CTSH, CAP

Global IT EBIT margin trend: on the rise



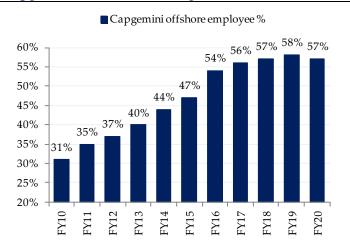
Source: Company, HSIE Research, Bloomberg; Global IT denotes Accenture, Cognizant and Capgemini

Global IT EBIT margin walk: expansion led by offshore delivery and SG&A optimisation



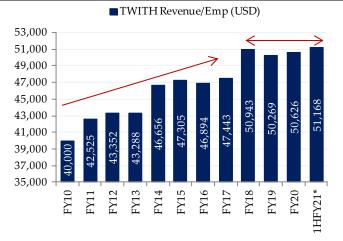
Source: Company, HSIE Research, Bloomberg; Global IT denotes Accenture, Cognizant and Capgemini

Capgemini offshore shift: margin lever



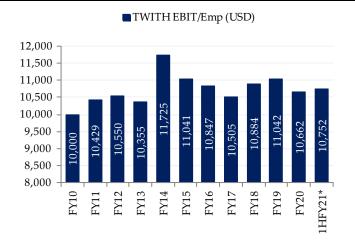
Source: Company, HSIE Research

TWITH revenue/employee has improved with higher revenue from digital



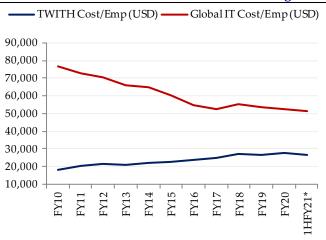
Source: Company, HSIE Research, TWITH (TCS, INFY, HCLT, WPRO IT services and TECHM)

TWITH profitability unit has been stable in USD terms



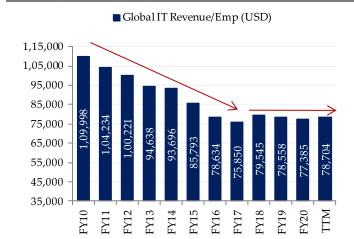
Source: Company, HSIE Research, TWITH (TCS, INFY, HCLT, WPRO IT services and TECHM)

Global IT vs Indian IT cost differential reducing



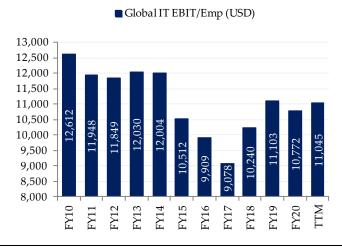
Source: Company, HSIE Research; Indian IT includes TCS, INFY, HCLT, WPRO IT services, TECHM aggregate, Global IT is ACN, CTSH and CAP

Global IT revenue/employee has trended lower on delivery mix change, yet at premium to TWITH



Source: Company, HSIE Research; Indian IT is TCS, INFY, HCLT, WPRO IT services and TECHM, Global IT is ACN, CTSH and CAP

Global IT profitability unit nearly similar to Indian IT



Source: Company, HSIE Research; Indian IT is TCS, INFY, HCLT, WPRO IT services and TECHM, Global IT is ACN, CTSH and CAP



Margin Sensitivity

First, setting the historical context and outlook

- A. The 'incremental' margin impact due to the employee cost increase was -111bps during the high growth phase of FY10-15 (TWITH revenue CAGR of ~16%), and it intensified to -320bps during FY15-20 as revenue growth moderated to ~7%. Rising employee cost, localisation (WPRO's US localisation increased from 55% to 70% over FY18-20), higher sub-con, rising H-1B denials/RFE, reskilling initiatives, and increasing onsite wages (explained in H-1B section) impacted margins during FY15-20. We expect these cost headwinds to moderate to -60bps during FY20-23E.
- B. Currency tailwind moderating: The currency (USD-INR) provided a tailwind of 580bps to margins during FY10-15, which came down to +320bps during FY15-20. Our estimates factor in currency depreciation of 2.8% for FY20-23E (15-year CAGR of 3.1%), which will have a cumulative benefit of +170bps over FY20-23E. The currency tailwind factored into the margins for FY21/22/23E is 102/27/40bps respectively.
- C. **Travel cost tailwind to reverse partially:** Travel cost has been a major margin lever during the pandemic, largely a driver from 4QFY20-1QFY21. Travel expense was ~3% of revenue, which came down to 0.7% in FY21E (-71% YoY). While the dynamics of post pandemic travel is still evolving, we have assumed travel cost to rise by +69/+24% in FY22/23E and reach ~60% of the pre-pandemic levels. This will have a benefit of +150bps over FY20-23E (played out in 9MFY21).

Now the sensitivity, at ceteris paribus (rarely the case)

A. 1% increase in US onsite wages translates to -29bps margin impact

Onsite average wage increased at a CAGR of 4.2% over FY15-20, which we expect would come down to 3.0% over FY20-23E with the prospects of easing supply side factors and near optimal investments to build localisation. The offshore wage hike has increased at 7-8% and we expect this to be at a similar level (domestic supply-side situation, talent pool remain favourable). Our margin assumption of 23.6% factors in base case +3/+8% CAGR onsite and offshore wage increase.

B. 1% increase in Europe onsite wages translates to -14bps margin impact

C. 1% increase in offshoring translates to +25bps margin impact

Offshoring is currently at nearly highest-ever with over 450bps improvement in the past three quarters translating into a ~110bps positive impact since 4QFY20 margin. Remote working has led to rapid expansion in offshoring coupled with the value proposition of further increase in offshoring. The prospects of retaining current levels are high and improvement is an upside risk to margins. Within our coverage universe, Mphasis and Mindtree are still ~200bps lower than their peak offshoring mix.

Historically, the shift to onsite was a margin drag; onsite revenue proportion for Tier-1 IT increased from ~46% in FY10 to 57% in FY20, which impacted margin by ~270bps.



D. 1% depreciation in USD-INR translates to +25bps margin impact

D has been the most volatile among all other factors. Our estimates factor 2.8% CAGR in USD-INR over FY20-23E (historically >3%), providing +27/40bps tailwind to margin in FY22/23.

EBIT margins impact due to offshoring increase and EBIT margins impact due to onsite and offshore wage

currency									
Manaia Insurant		C	Off-shoring increase (% of rev)						
Margin Impact	bps	1%	2%	4%	6%	8%			
Currency Depreciation (%)	-2%	-25	0	50	100	150			
	-1%	0	25	75	125	175			
	0%	25	50	100	150	200			
	1%	50	75	125	175	225			
	2%	75	100	150	200	250			

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IIIKC								
Manaia Incorp		Offshore Wage Increase %						
Margin Impact	bps	2.0%	3.0%	5.0%	6.0%	7.0%		
Onsite Wage Increase %	0.0%	-56	-84	-139	-167	-195		
	1.0%	-107	-135	-191	-219	-246		
	1.5%	-133	-161	-216	-244	-272		
	2.0%	-159	-186	-242	-270	-298		
	2.5%	-184	-212	-268	-296	-324		

EBIT margins impact due to US and Europe wage hike

Manain Immat		US Wage Increase %					
Margin Impact	bps	1.0%	1.5%	2.0%	2.5%	3.5%	
	1.0%	-43	-58	-72	-87	-116	
	1.5%	-50	-65	-79	-94	-123	
Europe Wage Increase %	2.0%	-57	-72	-86	-101	-130	
increase 70	2.5%	-64	-79	-93	-108	-137	
	3.5%	-79	-93	-108	-122	-151	

Source: Company, HSIE Research

EBIT margin sensitivity based on onsite and offshore wage hike

FY23E Margin %		Onsite Wage Hike CAGR FY20-23%						
		2.0%	2.5%	3.0%	3.5%	4.0%		
	6.4%	25.6%	25.0%	24.4%	23.8%	23.3%		
Offshore	7.4%	25.2%	24.6%	24.0%	23.4%	22.9%		
Wage hike CAGR	8.4%	24.7%	24.2%	23.6%	23.0%	22.4%		
FY20-23E	9.4%	24.3%	23.8%	23.2%	22.6%	22.0%		
	10.4%	23.9%	23.3%	22.8%	22.2%	21.6%		



H1B visa impact easing

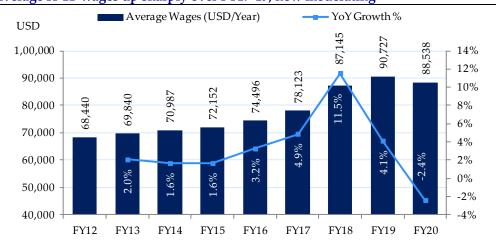
Talent crunch, H-1B rejections, local hiring, sub-contracting, and onsite utilisation resulted in an increase in onsite cost structure for the Indian IT sector over 2017-19. H-1B wages in the US grew at a CAGR of 2.7% over FY12-17 to USD 78,123. The H-1B wages increase over the subsequent two years intensified (~6.8% CAGR over FY17-19) due to higher H-1B rejections and shortage of talent trained in newer technologies. The average wage in the US declined for the first time in the past 10 years, down by 2.4% in 2020, due to the pandemic and easing of supply-side issues.

Based on our assumptions, we estimate that the margin impact due to higher onsite wage increase in the past two years (FY17-19) was ~2.5x (or nearly -200bps) vs. the previous five years (nearly -80bps). This is expected to moderate materially and thereby not be a source of additional margin headwind as US localisation has approached ~70% levels.

YoY Growth % Total H1-B Applications Processed Nos 000 19.1% 700 17.5% 25% 650 20% 664.62 654.36 647.85 600 624.65 15% 618.80 550 10% 500 5% 450 4.8%0% 442.28 400 %9: -5% 350 -10% 300 250 -15% FY20 FY12 FY13 FY14 FY15 FY16 FY17 FY18 FY19

Total no of H-1Bs in USA have been at the same level with sharp drop in FY20

Source: USCIS, HSIE Research, FY20 is Sep-20



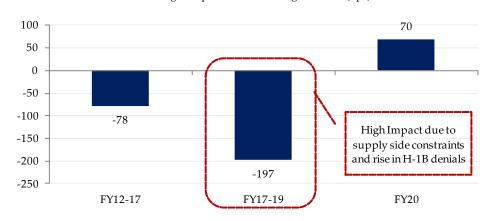
Average H-1B wages up sharply over FY17-19, now moderating

Source: USCIS, HSIE Research, FY20 is Sep-20



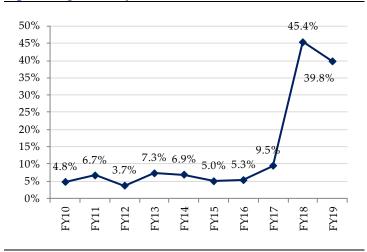
~200bps margin impact on IT companies from onsite supply crunch

■ Margin Impact due to US Wage Increase (bps)



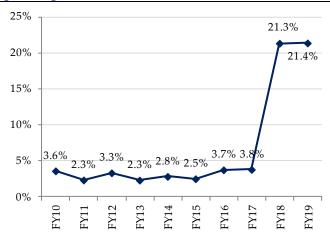
Source: Company, HSIE Research, FY20 is Sep-20

Initial H-1B denials for IT services* companies has spiked significantly



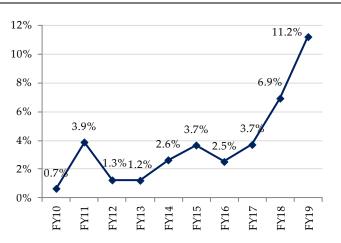
Source: USCIS, HDFC sec Inst Research, *Includes CTSH, ACN and CAP along with Indian IT services players, FY19 is Sep-2019

Continuing H-1B Denials for IT services* has also spiked up



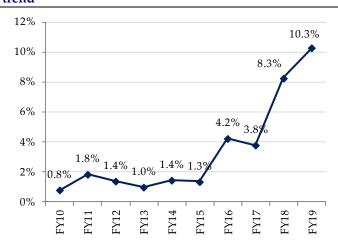
Source: USCIS, HDFC sec Inst Research, *Includes CTSH, ACN and CAP along with Indian IT services players, FY19 is Sep-2019

Initial H-1B denials (global majors*), on the rise but lower than IT services



Source: USCIS, HDFC sec Inst Research, *Includes 13 Global tech players, FY19 is Sep-2019

Continuing H-1B denials (global majors*), a similar trend

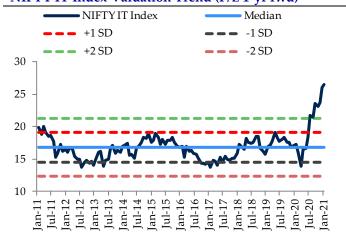


Source: USCIS, HDFC sec Inst Research, *Includes 13 Global tech players, FY19 is Sep-2019



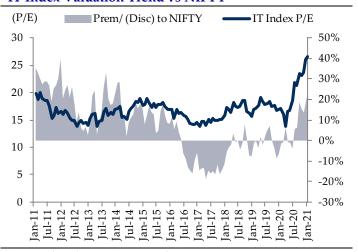
Valuation charts

NIFTY IT Index Valuation Trend (P/E 1-yr fwd)



Source: Bloomberg, HSIE Research

IT Index Valuation Trend vs NIFTY

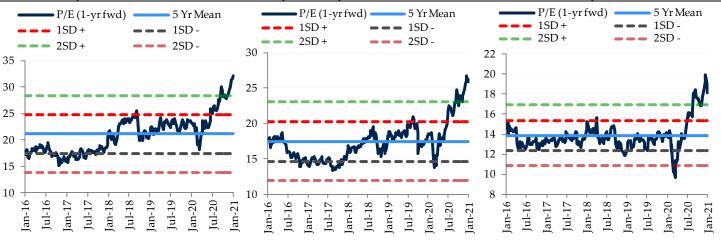


Source: Bloomberg, HSIE Research

TCS P/E (1-yr fwd) Trend

Infosys P/E (1-yr fwd) Trend

HCL Tech P/E (1-yr fwd) Trend



Source: Bloomberg, HSIE Research

Wipro P/E (1-yr fwd) Trend

20

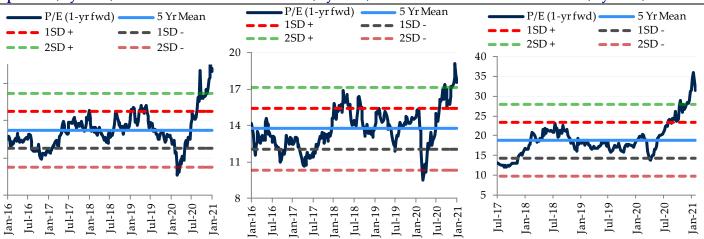
16

12

8

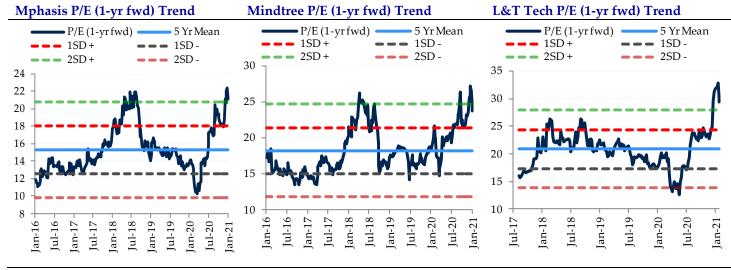
TECHM P/E (1-yr fwd) Trend

L&T Infotech P/E (1-yr fwd) Trend



Source: Bloomberg, HSIE Research

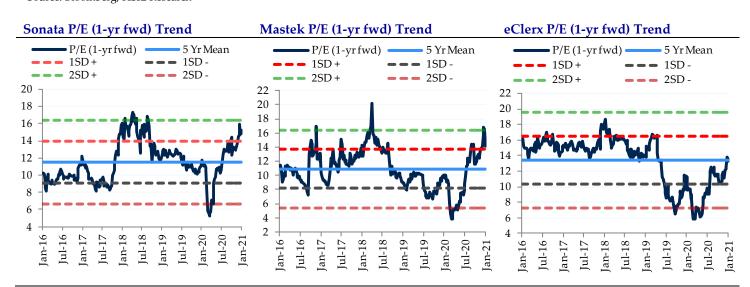




Source: Bloomberg, HSIE Research

Persistent P/E (1-yr fwd) Trend Cyient P/E (1-yr fwd) Trend Zensar P/E (1-yr fwd) Trend • P/E (1-yr fwd) — - 5 Yr Mean ► P/E (1-yr fwd) 5 Yr Mean ► P/E (1-yr fwd) 5 Yr Mean 1SD + 1SD -1SD + 1SD -- 1SD+ - 1SD -SD+ **-** 2SD -2SD + 2SD -2SD+ **–** 2SD -24 24 28 22 26 20 20 24 18 22 16 16 20 14 18 12 12 16 10 14 8 8 12 6 10 Jul-18 Jan-17 Jan-18 Jul-17Jan-21 Jul-1

Source: Bloomberg, HSIE Research



 $Source: Bloomberg, \, HSIE \, Research$

HDFC securities

Thematic reports by HSIE



Cement: WHRS - A key cog in the flywheel



Autos: Where are we on "S" curve?



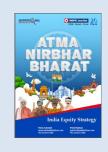
FMCG: Defensive businesses but not valuations



Autos: A changed landscape



Banks: Double whammy for some



India Equity Strategy: Atma Nirbhar Bharat



Indian IT: Demand recovery in sight



Life Insurance: Recovery may be swift with protection driving



Retail: Whole flywheel is broken?



Appliances: Looing beyond nearterm disruption



Pharma: Chronic therapy – A portfolio prescription



Indian Gas: Looking beyond the pandemic



India Equity Strategy: Quarterly flipbook



Real Estate: Ripe for consumption



Indian IT: expanding centre of gravity



Indian Chemical: Evolution to revolution!



Life Insurance: ULIP vs. MF



Infrastructure: On the road to rerating



Cement: Spotting the sweet spot



Pharma: Cardiac: the heartbeat of domestic market



Life Insurance: Comparative annual report analysis



Indian microfinance: Should you look micro as macros disappoint?



India Equity Strategy: Quarterly flipbook



Autos: Divergent trends in PVs and 2Ws



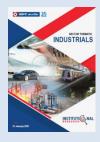
India Internet: the stage is set



FMCG: Opportunity in adversity -A comparative scorecard



Logistics: Indian Railways - getting aggressive



Industrials: Triggering a new cycle



Financial Services: Megatrends | Re-bundling ahead



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IT : Sector Thematic



Rating Criteria

BUY: >+15% return potential

ADD: +5% to +15% return potential REDUCE: -10% to +5% return potential SELL: > 10% Downside return potential

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