

# **INDIAN IT INDUSTRY**

**SECTOR REPORT**

**JANUARY 2023**

# CREDENCE CAPITAL

(Investment Club of IIM Lucknow)

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## INTRODUCTION

The IT sector has become one of the most significant growth catalysts for the Indian economy, contributing significantly to the country's GDP and public welfare. The IT industry accounted for 7.4% of India's GDP in FY22, and it is expected to contribute 10% to India's GDP by 2025.

As innovative digital applications permeate sector after sector, India is now prepared for the next phase of growth in its IT revolution. India is viewed by the rest of the world as having one of the largest Internet user bases and the cheapest Internet rates, with 76 crore citizens now having access to the internet.

The current emphasis is on the production of significant economic value and citizen empowerment, thanks to a solid foundation of digital infrastructure and enhanced digital access provided by the Digital India Programme. India is one of the countries with the quickest pace of digital adoption. This was accomplished through a mix of government action, commercial innovation and investment, and new digital applications that are already improving and permeating a variety of activities and different forms of work, thus having a positive impact on the daily lives of citizens.

India's rankings improved six places to the 40th position in the 2022 edition of the Global Innovation Index (GII).

According to National Association of Software and Service Companies (Nasscom), the Indian IT industry's revenue touched US\$ 227 billion in FY22, a 15.5% YoY growth.

According to Gartner estimates, IT spending in India is expected to increase to US\$ 101.8 billion in 2022 from an estimated US\$ 81.89 billion in 2021.

Indian software product industry is expected to reach US\$ 100 billion by 2025. Indian companies are focusing on investing internationally to expand their global footprint and enhance their global delivery centres.

The data annotation market in India stood at US\$ 250 million in FY20, of which the US market contributed 60% to the overall value. The market is expected to reach US\$ 7 billion by 2030 due to accelerated domestic demand for AI.

Exports from the Indian IT industry stood at US\$ 149 billion in FY21. Export of IT services has been the major contributor, accounting for more than 51% of total IT export (including hardware). BPM and engineering and R&D (ER&D) and software products export accounted for 20.78% each to total IT exports during FY21. The ER&D market is expected to grow to US\$ 42 billion by 2022.

The IT industry added 4.45 lakh new employees in FY22, bringing the total employment in the sector to 50 lakh employees.

## INDIAN IT INDUSTRY OVERVIEW

### FY2022: Year of Milestones Achieved, Records Made and Broken

**7.4%**

#### Leading India's Economic Recovery

- Relative share to India's GDP
- 51% relative share in services exports

**5.1 Mn**

#### Highest Ever Hiring

- Technology industry workforce
- 4,45,000 net new hires

**~25K**

#### 3<sup>rd</sup> Largest Tech Start-up Hub in The World

- Number of tech start-ups
- 2,500+ new start-ups; 42 new unicorns

**138K**

#### Increased Focus on Innovation

- Tech patents filed during 2015-2021
- ~10K patents filed at the end of 2021 by top 5 Indian tech firms

**30-32%**

#### Digital Revenue Acceleration

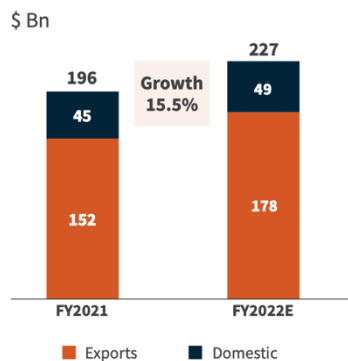
- Share of Digital revenue, growing at 25%
- 1.6 Mn digital skilled employees, 32% share of employee base

**36%**

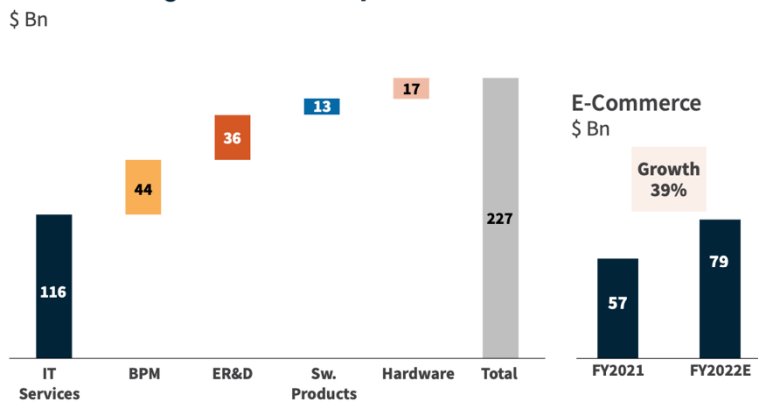
#### Strengthening Diversity, Equity & Inclusion

- Share of Women in India's tech workforce
- Talent from 150+ nationalities

#### India's Technology<sup>1</sup> Market Set to Cross \$227 Bn, a 15.5% Y-O-Y Growth



#### FY2022E- Segmented Breakup



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All segments of the industry are seeing high double-digit growth:

**IT services:** ~17% growth; demand for infrastructure management and networking services in a distributed setting; cloud-based software testing services; consulting services around cloud migration and digital transformation

**BPM:** 13.5% growth; this sector is building specialised capabilities in data monetization leveraging cloud-based AI & analytics; growth in platform-based services and automation

**Software products:** Fastest growing segment at ~19%; Customer enterprises continued their investments in communication & collaboration, cybersecurity, content management solutions, etc.

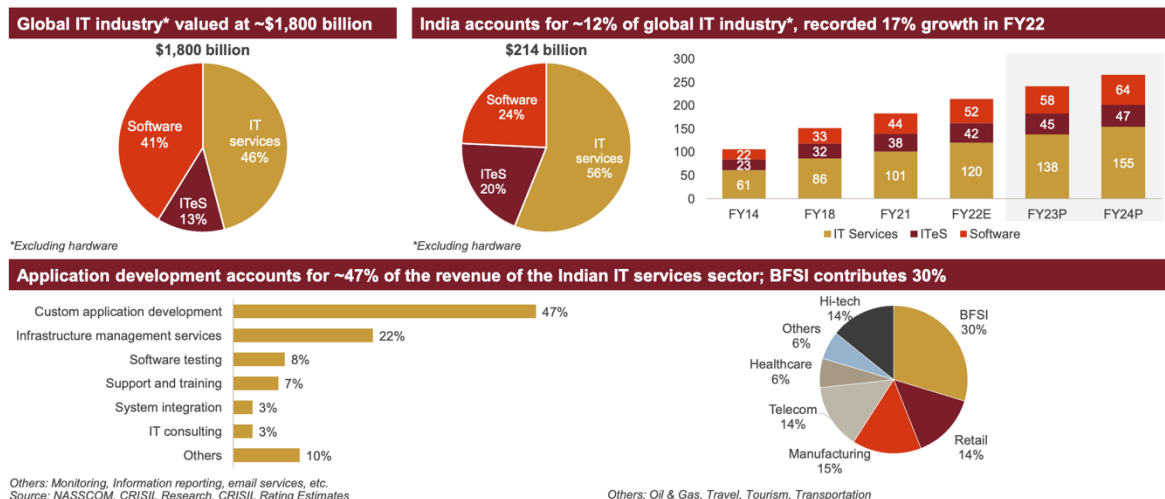
**ER&D:** Not only did this sector emerge out of a negative growth year (FY2021), but driven by pent-up demand, ER&D is likely to see ~17% revenue growth in FY2022, the most since FY2014

**eCommerce:** Unsurprisingly, growth rate has been exponential during the pandemic period as businesses rapidly expanded their online presence, restrictions on mobility pushed online purchases. This segment is estimated to grow 39% over last year

**Hardware:** Domestic (India) hardware market is growing on the demand for remote networking infrastructure; education sector pushed PC sales as the industry continued in online mode

## India accounts for 12% of the global IT services pie

Application development remains the mainstay; BFSI and retail are key verticals for IT service players



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## Themes that Defined FY2022

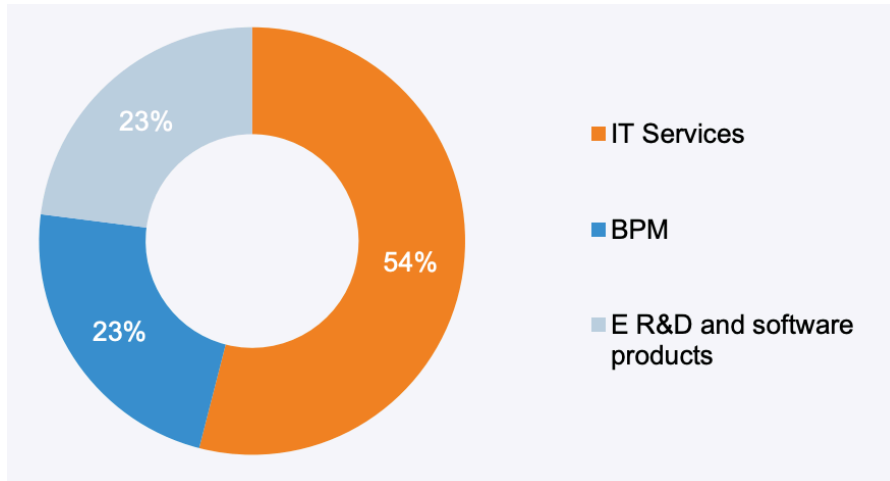
- |          |  |   |           |   |   |
|----------|--|---|-----------|---|---|
| <b>1</b> | <b>The year digital &amp; innovation went deep</b>     |    | <b>6</b>  | <b>When tech start-ups started to scale-up fast</b>         |    |
| <b>2</b> | <b>Margin defense through operational excellence</b>   |    | <b>7</b>  | <b>India as a digital talent nation</b>                     |    |
| <b>3</b> | <b>Accelerated digital capability building</b>         |    | <b>8</b>  | <b>Leading in hybrid work models</b>                        |    |
| <b>4</b> | <b>Platformisation play drives India tech adoption</b> |   | <b>9</b>  | <b>The O+O shift in ecommerce</b>                           |   |
| <b>5</b> | <b>Everything as a service becomes prominent</b>       |  | <b>10</b> | <b>The tech value proposition evolution for this decade</b> |  |

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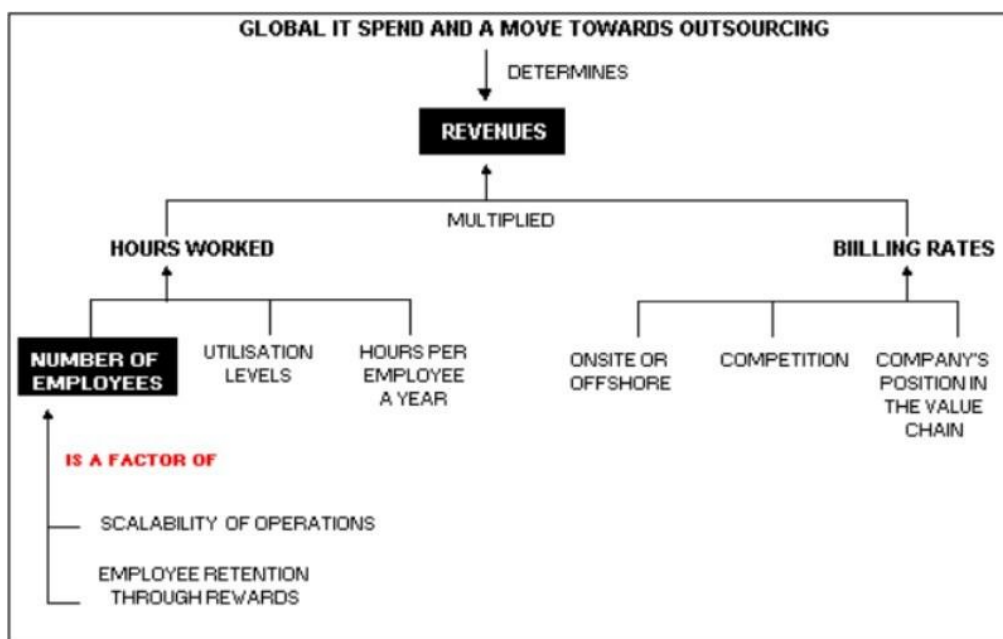
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## WORKING OF IT INDUSTRY

At a high level, IT firms offer services in the fields of computer software, hardware, data storage/retrieval, and computer support. It is a fast-growing industry that offers many high-paying jobs and career growth opportunities. In terms of sector-wise breakup of export revenue IT services, BPM, E R&D and software products contribute in ratio of 50:25:25 on average.



The underlying drivers of an IT firm has been illustrated below. And, along with that, various cost drivers can also be understood. For example, labour costs takes away a huge proportion of the revenues and now that the companies are trying to make a presence in the onsite setup to improve the client-vendor relationship, these costs have further increased. On the other hand, there is not a lot of investment required on the side of infrastructure and is manageable after the one-time setup is completed.



## Evolution of IT Sector

### Pre-1995

By the early 90s, US based companies began to outsource work to low-cost and skilled talent pool in India.

### 1995-2000

With increased investment in R&D, India became a product development destination.

### 2000-2005

Firms in India grew in terms of their size and scope of services offered as more and more western companies set up their bases in the country.

### 2005-2016

Firms in India became multinational companies with delivery centres across the globe.

India's IT sector is at an inflection point, moving from enterprise servicing to enterprise solutions.

### 2017 Onwards

The US\$ 227 billion Indian IT industry employs nearly five million people, with almost 445,00 net new hires in FY22.

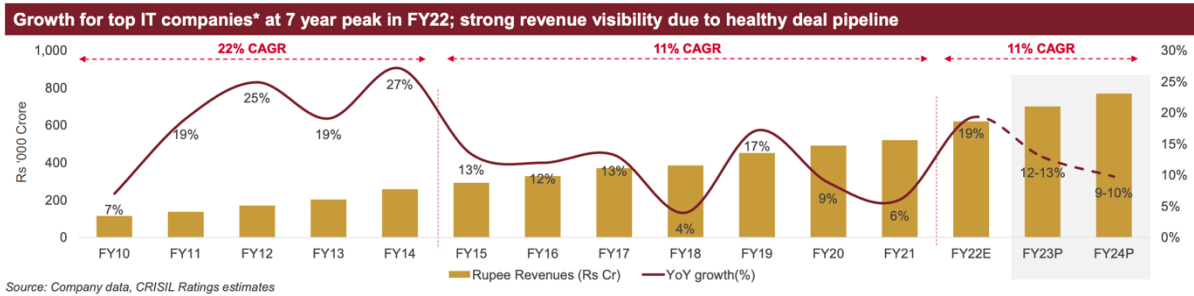
India ranks third among global start-up ecosystems with more than 5,300 tech start-ups.

India's rankings improved four places to 46th position in the 2021 edition of the Global Innovation Index (GII).



## GROWTH OUTLOOK AND DRIVERS

Healthy growth to continue this fiscal, driven by BFSI and retail



~75% revenue from BFSI, manufacturing, retail and telecom sectors; outlook remains healthy for FY23

Segment	% contribution	Drivers
BFSI	30%	Rapid digitalisation in industry with increasing deals
Retail	14%	Focus on data analytics amidst rising e-commerce
Manufacturing	15%	Increasing focus on digital and data-driven processes
Healthcare	6%	Digital healthcare solutions to maintain steady growth
Telecom	14%	Increasing data centres and 5G related services

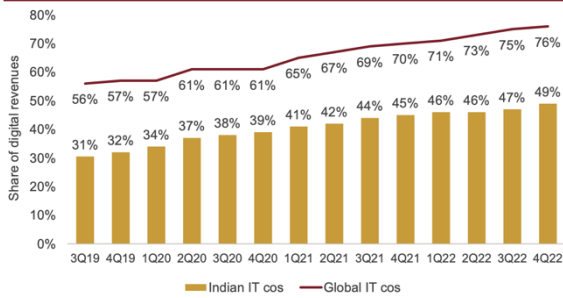
- Strategic shift across industries post-pandemic towards data and technology driven business verticals, and cloud, AI and other product offerings for cost optimisation and innovation.
- High growth in the post-global financial crisis during FY10-14 2010 to 2014 was led by enhanced IT adoption across industries.
- New deals from the BFSI and retail sectors will continue to drive industry growth, while investments by the manufacturing, telecom and healthcare segments are expected to grow steadily

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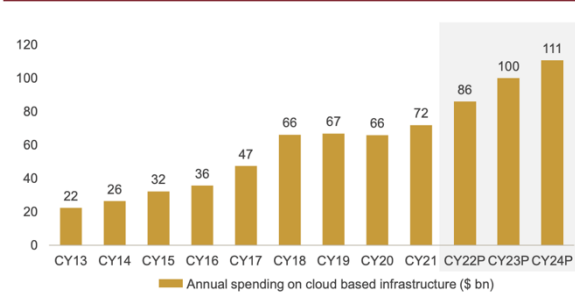
## Digital business remains key driver, enabled by new-age technologies

**Growing share of digital revenue, albeit still behind the global level**



Source: CRISIL Research, Company Data; Indian IT Cos – Infosys, Wipro, HCL Tech, Global IT Cos – Accenture, Capgemini

**Spending on cloud to be 1.5x the CY21 level in 3 years**

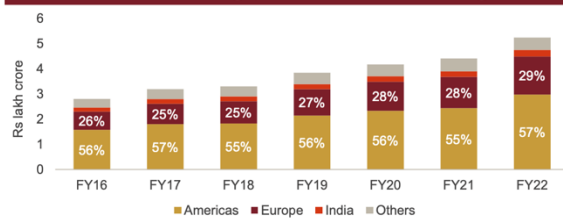


Source: International Data Corporation

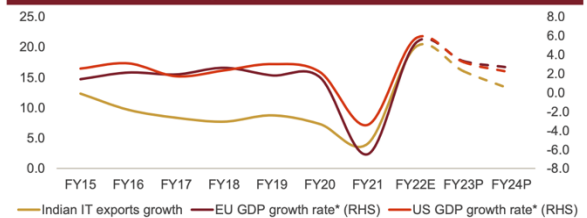
- With organisations around the world pursuing new IT architectures and structures, demand for digital transformation services, emergence of new-age technologies such as cloud, mobile applications, analytics, Artificial Intelligence (AI), cyber security, and Internet of Things (IoT) will drive growth
- Investments in cloud infrastructure have risen strongly across industries and will get a further boost in the post-pandemic era
- Developing digital capability to offer innovative solutions to clients will be key to maintaining a sustainable edge over competitors
- Indian IT companies have headroom to grow in the global space

## Geographic diversity of revenue better, but US remains the key market

**Reliance on US remains high; share of EU continues to grow**



**Indian IT exports closely map US GDP movement**

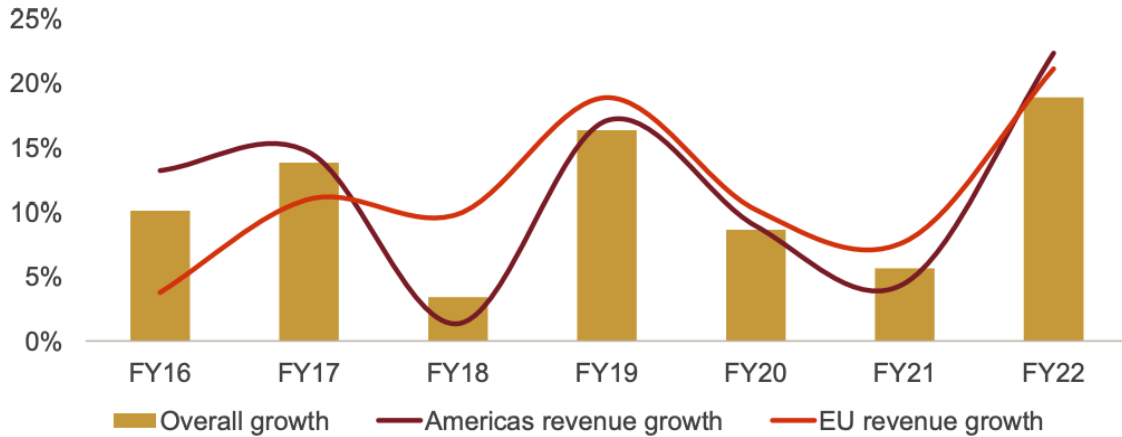


\* US and EU GDP growth rates CY21 corresponds to FY 22 and so on.

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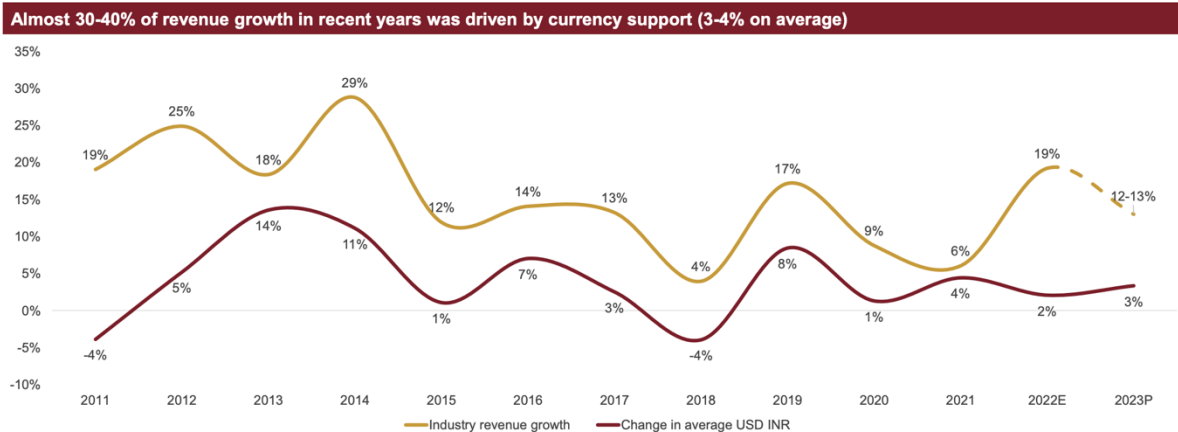
## Higher growth in EU and strong deal pipeline in Asia-Pacific provide scope for diversification



Source: Tier I Company data, CRISIL Research, CRISIL Ratings Estimates, S&P Global and World Bank

- The Indian IT industry remains sensitive to the US and European markets, which together contributed ~86% to revenue in FY22
- FY18 saw the global markets under pressure because of the US China trade war and interest rate hikes by the Fed, which led to slowdown in the IT industry
- Fed hikes, inflationary pressures and the evolving geo-political developments could moderate revenue growth and are key monitorables

## Rupee depreciation continues to support revenue growth



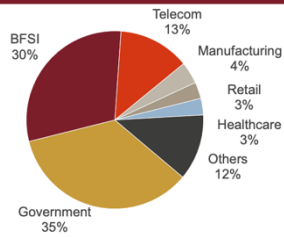
- Large dependence on the US and EU markets and dollar-denominated billing augurs well in a depreciating rupee scenario
- Rupee depreciation expected to continue this fiscal
- Larger share of offsite employee base and currency depreciation support healthy operating profitability

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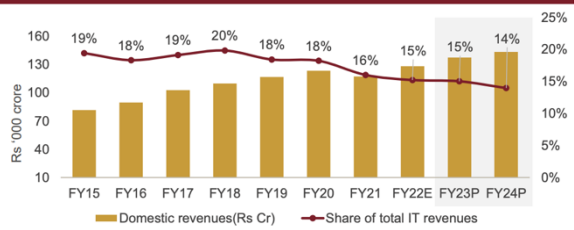
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## Domestic IT services demand to recover, led by govt digital initiatives

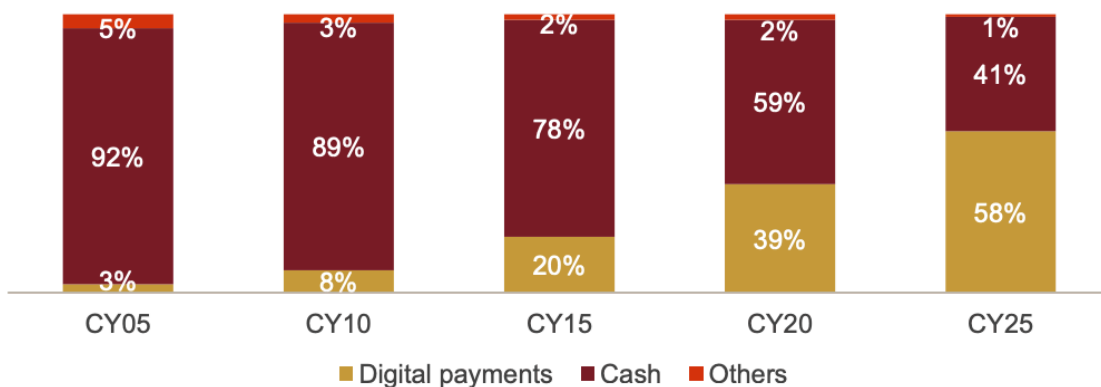
Government and BFSI sectors drive domestic demand



Domestic revenue growth to remain steady



## Faster transition to digital payments; government expenditure set to rise



Source: CRISIL Research, ACI Worldwide

- Budget allocation under 'Digital India programme' increased to Rs 10,600 crore. Also, Rs 1,500 crore announced to accelerate digital payment adoption in India to continue in 2023
- Increasing focus on digital banking, cyber security, digital learning, new government initiatives such as Central Bank Digital Currency 3% 8%
- Credit growth of domestic banks to enhance IT spending

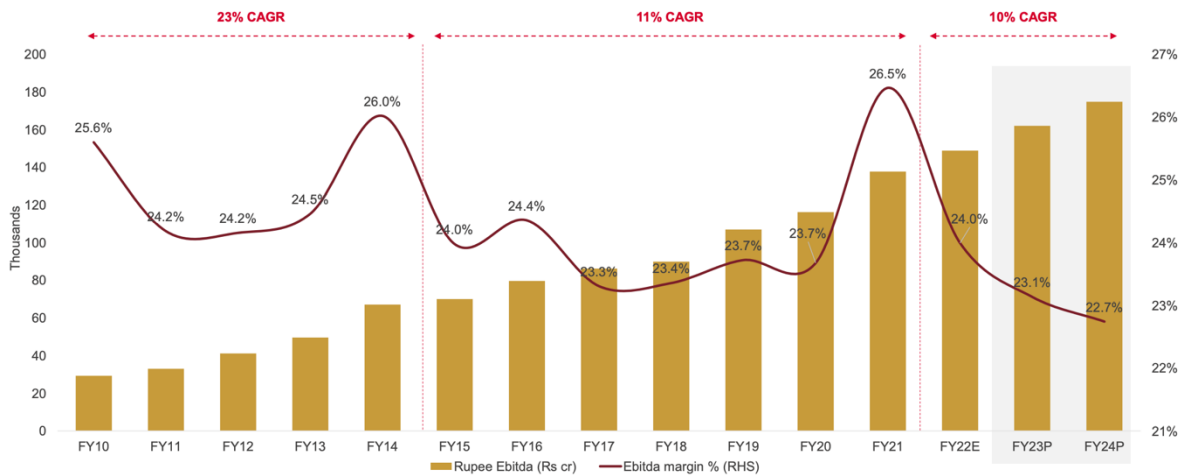
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## COST STRUCTURE AND PROFITABILITY

Margins to moderate to pre-pandemic level this fiscal, but stay healthy

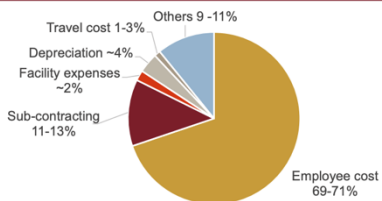
**Operating margin to remain healthy at 23-24%, driven by higher revenue growth amidst rising employee and travel cost**



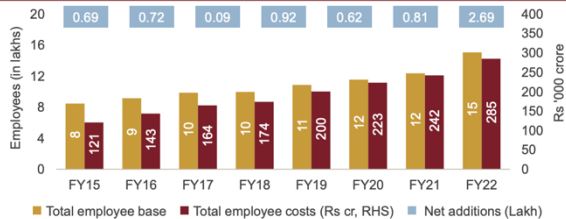
Source: Tier 1 and Tier 2 company Data, CRISIL Ratings estimates

Employee costs to rise on high attrition, increased replacement cost

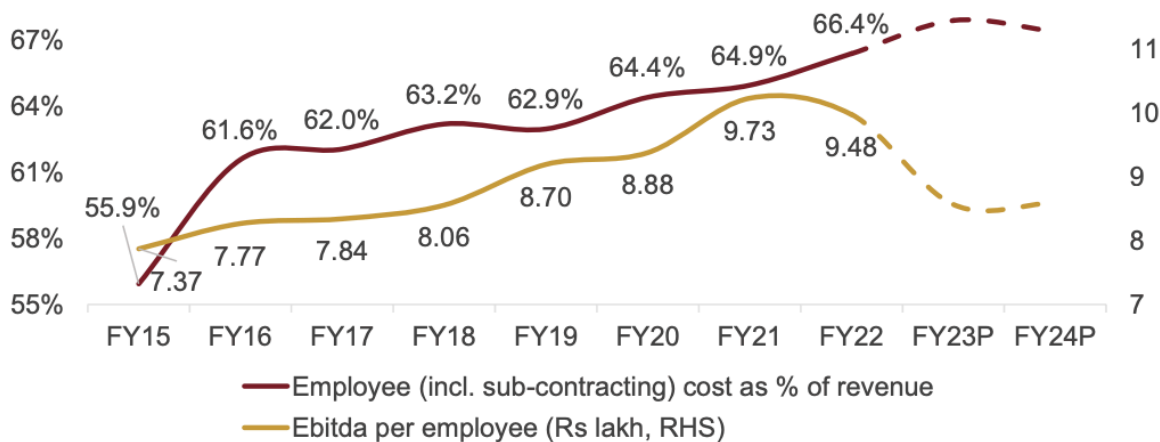
**Costs driven by employee and sub-contracting costs**



**Employee base growing at 8.3% CAGR; all-time high hiring in FY22**



**Increasing employee cost for talent retention this fiscal**



Source: Tier I company data, CRISIL Research, CRISIL Ratings estimates

- Hiring net of attrition increased to an all-time high of ~2.7 lakh employees by Tier-I

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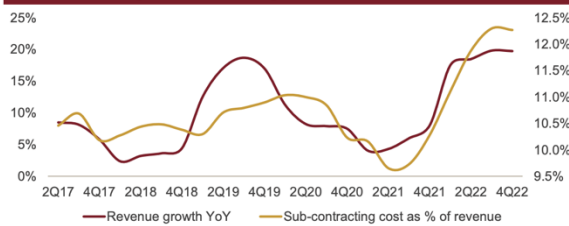
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companies; sub-contracting costs grew, too

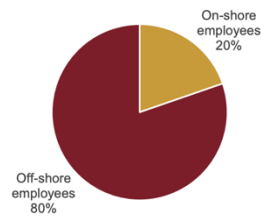
- Increasing compensation across the industry for tackling attrition will result in higher employee cost this fiscal
- Although some moderation is expected this fiscal, profitability per employee has continued to increase over the years, despite rising costs, due to up-skilling, automation and higher premiums charged on new-age digital technology solutions.

## Good onshore employee mix to optimise costs; travel bill to still rise

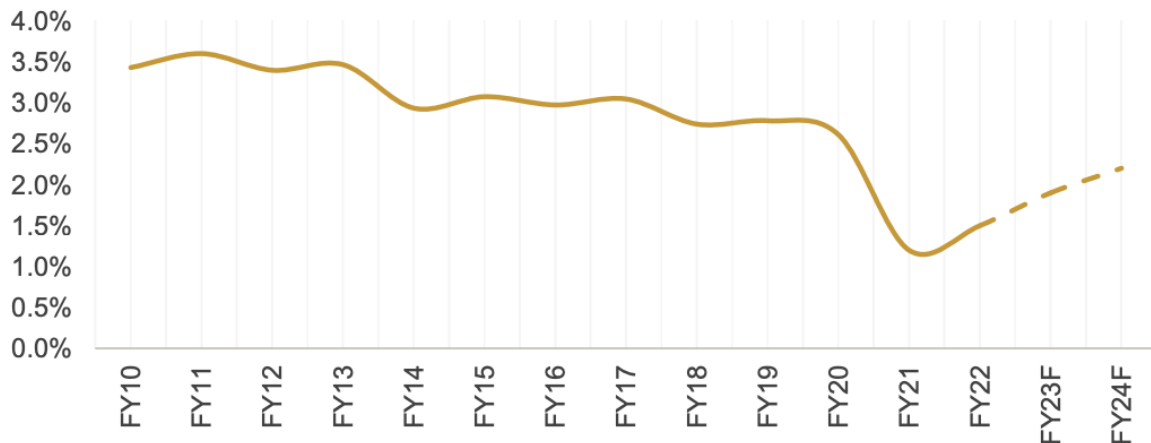
**Sub-contracting rose amidst high demand, attrition**



**Healthy off/onshore employee mix to continue**



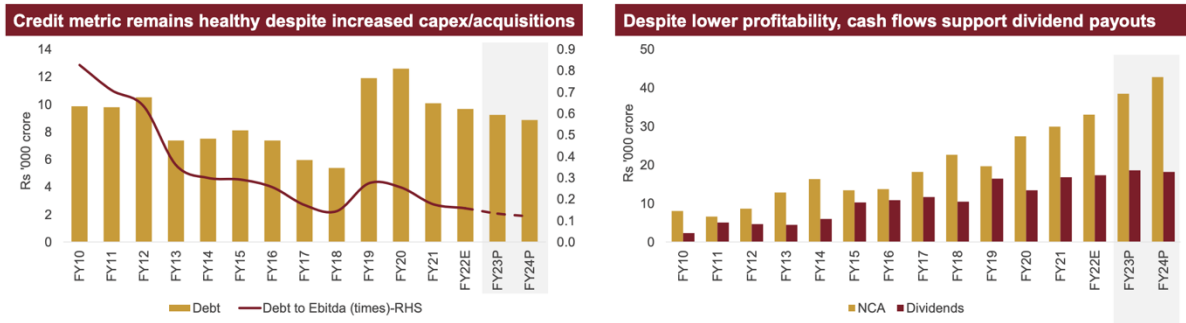
## Travel costs to grow in FY23, but stay below the pre-pandemic level



- Increasing onsite sub-contracting by top Indian IT companies had led to higher sub-contracting costs over the past few quarters
- With visa approvals now increasing amidst roll-back of protectionist policies, especially in the US, sub-contracting costs should moderate over the medium term
- Travel costs will increase gradually but will remain lower than in the past, as preference for remote meetings continues
- Players will continue to have healthy off/onshore employee mix.

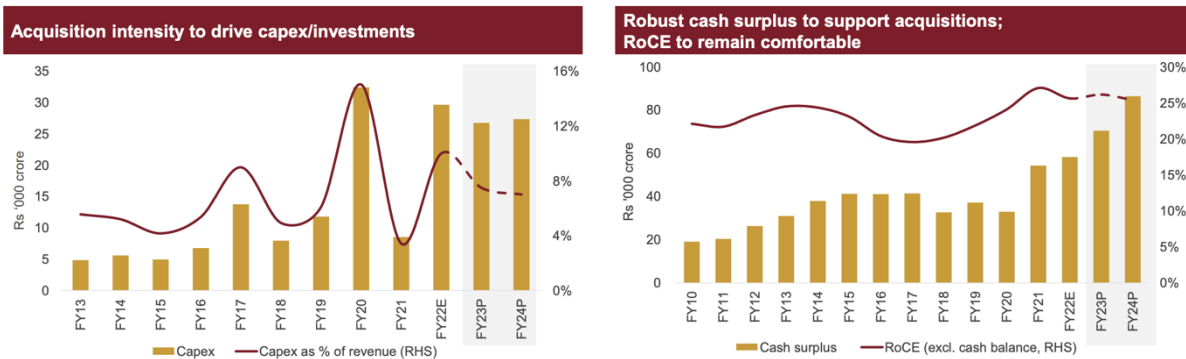
## CREDIT OUTLOOK REMAINS ‘POSITIVE’

Strong balance sheets to support credit profiles, debt to remain low



- CRISIL Ratings rates Tier I, Tier II and Tier III players\*, covering 70 IT services players – Healthy cash generation and strong balance sheets will continue to support credit profiles going forward; outlook remains ‘Positive’
- Strong balance sheets with healthy profitability resulted in healthy credit metrics with debt to Ebitda ratio expected to remain below 0.2 time over the medium term
- Healthy accretion over the years has resulted in reduced reliance on external debt
- Dividend payout to remain steady, despite low margins, driven by increasing revenue

Pace of acquisitions to pick up, funded largely by cash surplus



- Nearly 300 acquisitions were made by IT companies in 2021, of which the top three deals amounted to \$1.5 billion, \$0.6 billion and \$0.5 billion
- IT firms can potentially leverage niche acquisitions and strategic partnerships to provide one-stop service to clients, thus increasing wallet share per client
- Consolidation and acquisition picking up among Tier II companies as well
- Historically, high liquidity has helped the sector endure slowdowns such as amid the Covid-19 pandemic, and fund acquisitions

## MAJOR IT PLAYERS

In recent years, India has emerged as one of the most prominent countries where technology is flourishing in its prime. India is considered as the global hub for the IT services industry. The major discriminating factor for Indian IT companies as compared to US IT companies is that the former is highly B2B driven.

Major Indian players of IT sector in India are as follows:

### 1. Tata Consultancy Services (Mkt. Cap. – INR 12 L. Cr.)

Tata Consultancy Services, popularly named as TCS, is among the top 10 largest IT services provider in the world. A subsidiary of Tata Group, TCS was incorporated in 1968. The company contributed to over 90% of the revenue of Tata Sons in FY20. Not only this, but also the company is the India's biggest Information Technology service provider by market capitalization. TCS has close to 400,000+ employees over 46 countries and is the largest IT recruiter in India over a decade.

### 2. Infosys (Mkt. Cap. – INR 6.2 L. Cr.)

The second-largest IT company in India is Infosys Limited that is headquartered in Bengaluru and provides consulting, services, and information technology business. The company was founded in 1981 with seven employees and today, it accommodates over 200,00 workers worldwide. It is the first Indian organization that was listed in NASDAQ. Infosys is now highly involved in research of NextGen Technology, AI, Machine Language apart from providing software services to various domains.

### 3. Wipro (Mkt. Cap. – INR 2.1 L. Cr.)

One of the oldest Indian companies, Wipro was incorporated in 1945. Today, the company has an employee strength of over 160,000 in 6 continents and it is the first Indian IT company to achieve the ISO 4001 certification in 2002. The company provides information technology business, consulting, and services to the IT industry.

### 4. HCL Technologies (Mkt. Cap. – INR 2.9 L. Cr.)

Founded in 1976, HCL Technologies Ltd. is headquartered in Noida, India with a worldwide workforce of 117,000+ people across 30 nations. The organisation is popularly known as the IT giant in manufacturing and supplying computer equipment and servers. Also, HCL provides IT consulting services in different sectors like banking, consumer goods, automotive, and healthcare.

### 5. Tech Mahindra (Mkt. Cap. – INR 0.98 L. Cr.)

The fifth market player in our list is Tech Mahindra which is a subsidiary of the Mahindra Group and was founded in 1986. Tech Mahindra is among the largest providers of Information Technology and offers a range of services including software, maintenance, and engineering design. The company is a proud employer of over 110,000 technologists operating in over 90 countries.



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## PEER GROUP FINANCIALS

### IT Services: Valuation Metrics

Company	Bloom Code	MCap (INR bn)	CMP (INR)	EPS (INR)				P/E (x)				RoE (%)				\$ Rev CAGR% FY22-24	EPS CAGR% FY22-24
				FY22	FY23E	FY24E	FY25E	FY22	FY23E	FY24E	FY25E	FY22	FY23E	FY24E	FY25E		
TCS	TCS IN	10,922	2,985	104.7	110.7	127.0	137.6	28.5	27.0	23.5	21.7	43.7	44.5	48.0	48.4	8.3	10.1
Infosys	INFO IN	5,853	1,394	52.6	58.3	67.2	74.2	26.5	23.9	20.7	18.8	29.2	30.9	32.6	33.0	11.9	13.0
HCL Tech	HCLT IN	2,520	930	49.8	51.2	57.5	63.2	18.7	18.2	16.2	14.7	22.1	22.1	24.1	25.6	7.8	7.4
Wipro	WPRO IN	2,164	395	22.3	20.1	23.9	26.3	17.7	19.6	16.5	15.0	20.2	16.3	18.0	18.5	8.8	3.5
TechM	TECHM IN	971	1,006	63.1	54.0	68.4	75.7	15.9	18.6	14.7	13.3	21.5	17.4	21.3	22.7	10.9	4.1
<b>Tier-1 IT Median</b>								<b>18.7</b>	<b>19.6</b>	<b>16.5</b>	<b>15.0</b>	<b>22.1</b>	<b>22.1</b>	<b>24.1</b>	<b>25.6</b>	<b>8.8</b>	<b>7.4</b>
LTI	LTI IN	780	4,451	131.2	153.5	176.2	202.6	33.9	29.0	25.3	22.0	28.5	28.2	27.8	27.4	16.2	15.9
Tata Elxsi	TELX IN	518	8,313	88.3	117.8	139.5	177.5	94.2	70.5	59.6	46.8	37.2	41.1	39.8	41.3	20.3	25.7
Mindtree	MTCL IN	514	3,120	100.3	117.2	135.2	155.6	31.1	26.6	23.1	20.1	33.8	31.7	30.0	28.7	16.7	16.1
Mphasis	MPHL IN	376	2,006	77.3	89.5	100.5	114.4	25.9	22.4	20.0	17.5	21.5	22.9	23.3	24.2	11.3	14.0
L&T Tech	LTTS IN	369	3,492	90.7	107.6	122.4	141.6	38.5	32.4	28.5	24.7	25.1	25.0	24.1	23.5	12.6	16.2
Persistent	PSYS IN	245	3,199	90.3	116.3	139.9	165.3	35.4	27.5	22.9	19.4	22.4	24.3	24.9	25.2	24.3	24.5
Cyient	CYL IN	86	780	47.3	46.5	55.9	63.4	16.5	16.8	13.9	12.3	17.2	15.8	17.5	18.1	14.2	8.8
Sonata	SSOF IN	70	506	26.8	29.9	34.8	40.2	18.8	16.9	14.5	12.6	37.6	34.7	34.0	33.2	12.6	13.8
Mastek	MAST IN	53	1,737	96.6	95.2	115.9	145.0	18.0	18.2	15.0	12.0	30.6	24.4	24.2	24.5	11.5	9.6
Zensar	ZENT IN	48	210	18.2	13.1	18.1	20.4	11.5	16.0	11.6	10.3	16.3	10.6	13.5	14.1	9.5	(0.3)
<b>Mid-tier IT AVG</b>								<b>32.4</b>	<b>27.6</b>	<b>23.4</b>	<b>19.8</b>	<b>27.0</b>	<b>25.9</b>	<b>25.9</b>	<b>26.0</b>	<b>14.9</b>	<b>14.4</b>
<b>Mid-tier IT Median</b>								<b>28.5</b>	<b>24.5</b>	<b>21.4</b>	<b>18.5</b>	<b>26.8</b>	<b>24.7</b>	<b>24.5</b>	<b>24.8</b>	<b>13.4</b>	<b>15.0</b>

Source: HSIE Research, CMP as on 3<sup>rd</sup> Oct 2022

### Global IT Peers

Company	Bloom Code	MCap (USD bn)	CMP USD	EPS (USD)				P/E (x)				RoE (%)				\$ Rev CAGR% FY22-24	EPS CAGR% FY22-24
				FY22	FY23E	FY24E	FY25E	FY22	FY23E	FY24E	FY25E	FY22	FY23E	FY24E	FY25E		
Accenture	ACN US	162.8	257	8.8	10.7	11.4	12.6	29.2	24.0	22.7	20.4	32.3	33.0	30.0	29.6	16.9	8.5
Cognizant	CTSH US	29.7	57	4.1	4.6	5.0	5.4	13.9	12.6	11.6	10.6	18.7	19.1	19.4	19.0	7.2	9.3
Capgemini^	CAP FP	27.7	161	9.2	10.6	11.8	13.2	17.5	15.2	13.7	12.2	15.9	18.9	18.7	18.7	12.5	11.8
EPAM	EPAM US	20.8	362	9.1	10.0	12.7	16.0	40.0	36.3	28.6	22.7	21.6	21.7	22.9	22.8	26.0	26.6
Globant	GLOB US	7.8	187	3.8	5.1	6.3	7.9	49.8	36.8	29.6	23.6	8.8	15.3	16.2	16.7	30.7	24.9
TietoEVRY^	TIETO FH	2.7	23	2.5	2.2	2.4	2.6	9.3	10.4	9.5	8.9	16.9	10.8	13.1	13.7	2.6	8.0
<b>Global IT AVG</b>								<b>26.6</b>	<b>22.6</b>	<b>19.3</b>	<b>16.4</b>	<b>19.0</b>	<b>19.8</b>	<b>20.1</b>	<b>20.1</b>	<b>16.0</b>	<b>14.9</b>
<b>Global IT Median</b>								<b>23.4</b>	<b>19.6</b>	<b>18.2</b>	<b>16.3</b>	<b>17.8</b>	<b>19.0</b>	<b>19.0</b>	<b>18.8</b>	<b>14.7</b>	<b>10.6</b>

Source: Bloomberg Consensus, HSIE Research, CMP as on 3<sup>rd</sup> Oct 2022, ^ in EUR

# CREDENCE CAPITAL

(Investment Club of IIM Lucknow)

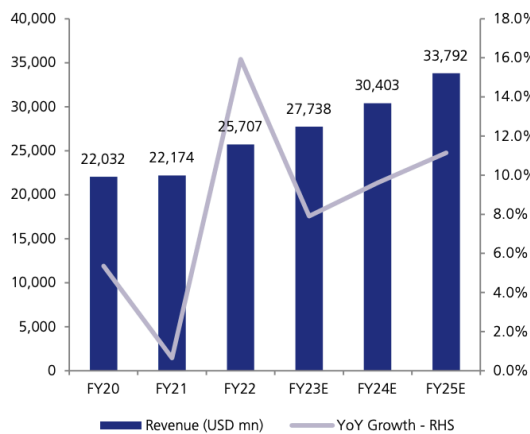
## COMPANY WISE FINANCIALS AND COMMENTS

### Tata Consultancy Services

Financial Summary					(INR mn)
Y/E March	FY21A	FY22A	FY23E	FY24E	FY25E
Net Sales	16,41,770	19,17,540	22,28,255	24,77,844	27,54,056
Sales Growth (%)	4.6	16.8	16.2	11.2	11.1
EBITDA	4,65,460	5,30,570	5,89,462	6,53,141	7,24,317
EBITDA Margin (%)	28.4	27.7	26.5	26.4	26.3
Adjusted Net Profit	3,36,480	3,83,270	4,18,860	4,63,938	5,36,875
Diluted EPS (INR)	90.9	103.6	113.2	125.4	145.1
Diluted EPS Growth (%)	5.5	16.1	9.3	10.8	15.7
ROIC (%)	56.4	78.1	83.2	74.9	71.4
ROE (%)	39.5	42.6	41.1	36.5	34.1
P/E (x)	36.9	32.3	29.6	26.7	23.1
P/B (x)	14.4	13.6	11.0	8.7	7.1
EV/EBITDA (x)	25.7	22.2	19.8	17.6	15.6
Dividend Yield (%)	1.1	1.3	1.2	1.4	1.8

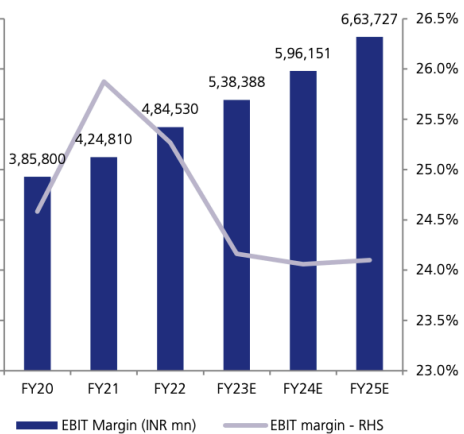
Source: Company data, JM Financial. Note: Valuations as of 08/Dec/2022

Exhibit 1. USD revenue forecast - TCS



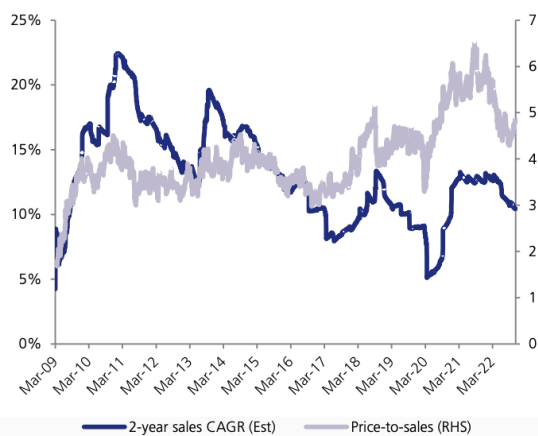
Source: Company, JM Financial estimates

Exhibit 2. EBIT Margin forecast - TCS



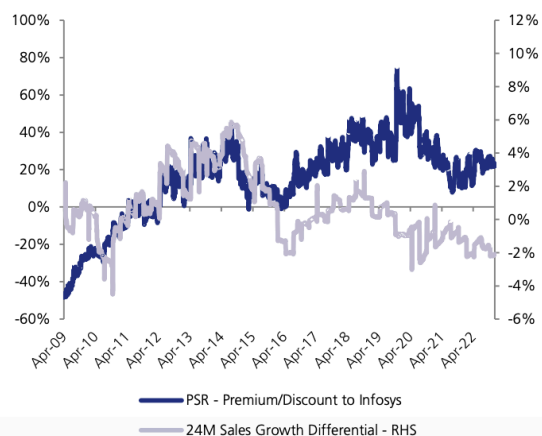
Source: Company, JM Financial estimates

Exhibit 3. Price-to-Sales valuation chart



Source: Bloomberg, JM Financial

Exhibit 4. Price-to-sales valuation differential with Infosys



Source: Company, Bloomberg, JM Financial

# CREDESCENCE CAPITAL

(Investment Club of IIM Lucknow)

TCS's diversified presence across verticals and geographies and its ability to drive transformation agenda at scale makes this company unique among peers. TCS is the most stable business with industry leading margins and consistently high pay-out ratios.

Business has high defensive characteristics as the company is good at mining the client as well as adding new logos every quarter. Despite no large acquisitions, TCS continued to improve Hyperscalers capabilities and the company's Product & Platform has increased the overall opportunity size.

TCS is well positioned to benefit from transformation spending on account of:

- 1) Full-service model, deep expertise and presence across technologies,
- 2) Robust client base,
- 3) Best-in-class execution,
- 4) Ability to leverage contextual client knowledge on basis of long-term client partnership to further mine clients and
- 5) Well-managed supply-side engine.

In FY22, TCS crossed a milestone of US\$ 25 bn in revenues, experiencing strong growth of 15.9%, adding an all-time high incremental revenues of US\$ 3.5 bn. Since the start of the last decade, the company has grown over four times, comfortably outperforming its largest global competitors. Most importantly, this growth has come with an industry-leading operating margin. TCS profitability continues to be industry-leading, with the operating margin at 25.3%, and net margin at 20%. Cash conversion continues to be very strong, with a cash conversion ratio of 104.2% and free cash flow of Rs 370 bn.

# CREDENCE CAPITAL

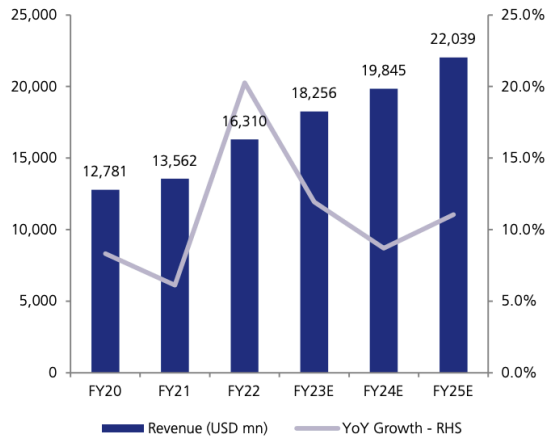
(Investment Club of IIM Lucknow)

## Infosys

Financial Summary					(INR mn)
Y/E March	FY21A	FY22A	FY23E	FY24E	FY25E
Net Sales	10,04,730	12,16,410	14,50,677	16,17,408	17,96,150
Sales Growth	10.7%	21.1%	19.3%	11.5%	11.1%
EBITDA	2,78,900	3,14,910	3,60,169	4,00,401	4,47,055
EBITDA Margin	27.8%	25.9%	24.8%	24.8%	24.9%
Adjusted Net Profit	1,93,510	2,21,110	2,46,490	2,75,944	3,09,012
Diluted EPS (INR)	45.5	52.4	58.7	65.7	73.6
Diluted EPS Growth	16.4%	15.1%	11.9%	11.9%	12.0%
ROIC	47.1%	54.4%	57.0%	55.7%	55.4%
ROE	27.3%	29.2%	29.2%	27.7%	27.2%
P/E (x)	35.6	30.9	27.6	24.7	22.0
P/B (x)	9.0	9.1	7.3	6.4	5.6
EV/EBITDA (x)	23.0	20.8	17.8	15.9	14.0
Dividend Yield	1.7%	1.9%	1.0%	2.2%	2.2%

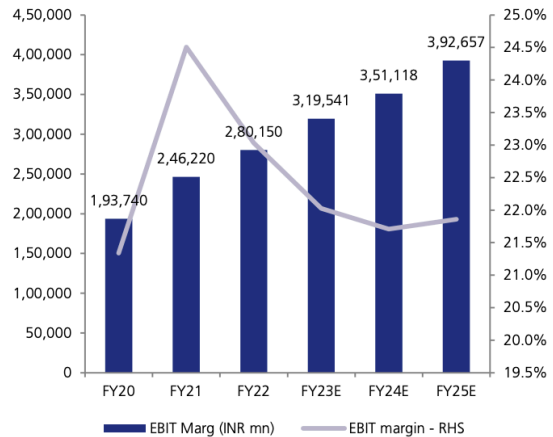
Source: Company data, JM Financial. Note: Valuations as of 08/Dec/2022

Exhibit 1. USD revenue forecast - Infosys



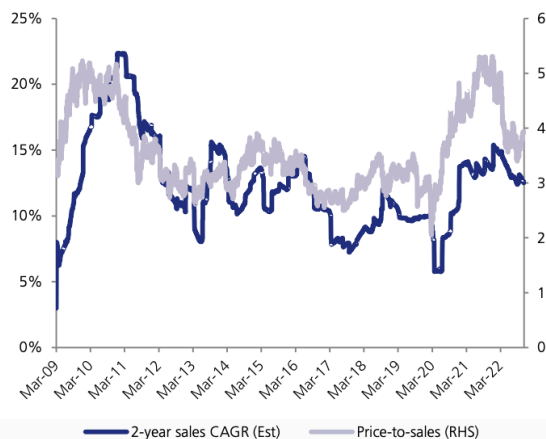
Source: Company, JM Financial estimates

Exhibit 2. EBIT Margin forecast - Infosys



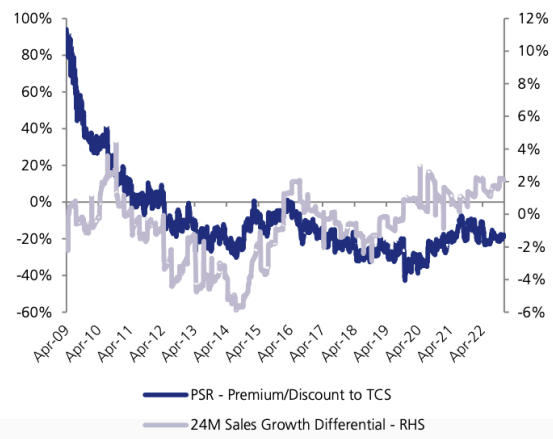
Source: Company, JM Financial estimates

Exhibit 3. Price-to-Sales valuation chart



Source: Bloomberg, JM Financial

Exhibit 4. Price-to-sales valuation differential with TCS



Source: Company, Bloomberg, JM Financial

# CREDENCE CAPITAL

(Investment Club of IIM Lucknow)

Infosys (INFO) is well positioned to capture digital driven opportunities and consistently outperforming its Tier-I peers through gaining market share. In the transformation journey, INFO invested in multiple ways to get leadership in the Digital & Cloud area. Acquisition, reskilling, account mining and special focus on hunting – all these lead to strong positioning and large deal wins.

INFO's management identified clear areas of growth. Scaling cloud business through both platform and services, gaining higher share in digital, being early mover Next generation Tech services, Automation and people optimisation are the focus areas to drive profitable growth.

The company took impact on profitability to chase growth and gain market share over the last two years and hence, lever to margin improvement is also maximum here. Lower attrition, low sub-contracting cost, stabilisation of large deals are expected to act as strong margin levers going forward.

INFO, under the new CEO, laid out 'stabilise, consolidate, accelerate' roadmap and now the company has moved into growth acceleration mode. Success of the strategy is visible in the industry leading growth the company is reporting over the last several quarters. After numerous years of underperformance, INFO registered a strong comeback in FY21 and 22. The company was the fastest-growing large cap IT company in FY22 with almost 21% growth versus 13-17% of other Tier-1 peers. The company is consistently gaining market share aided by its robust cloud and digital capabilities. The company also inducted the strategy of 'One-Infosys' approach to bring together all the capabilities and intellectual capital of Infosys to create value and make a disproportionate impact on clients.

# CREDESCENCE CAPITAL

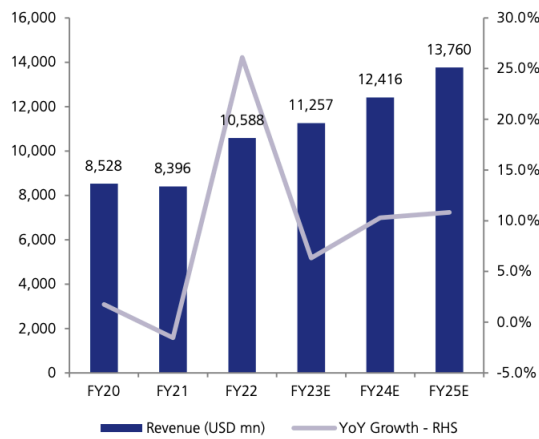
(Investment Club of IIM Lucknow)

## Wipro

Financial Summary					(INR mn)
Y/E March	FY21A	FY22A	FY23E	FY24E	FY25E
Net Sales	6,22,344	7,90,934	9,10,363	10,11,887	11,21,427
Sales Growth (%)	1.3	27.7	15.1	11.2	10.8
EBITDA	1,37,582	1,66,841	1,68,859	1,93,008	2,16,413
EBITDA Margin (%)	22.1	21.0	18.5	19.1	19.3
Adjusted Net Profit	94,819	1,22,189	1,15,212	1,33,590	1,49,817
Diluted EPS (INR)	16.7	22.3	21.0	24.3	27.3
Diluted EPS Growth (%)	11.1	17.1	-5.8	16.0	12.1
ROIC (%)	29.1	30.3	21.3	21.7	23.5
ROE (%)	17.1	20.2	17.0	18.8	20.1
P/E (x)	24.2	18.1	19.2	16.6	14.8
P/B (x)	4.1	3.4	3.2	3.1	2.9
EV/EBITDA (x)	14.1	12.1	12.4	10.8	9.6
Dividend Yield (%)	0.2	1.5	0.2	0.2	0.2

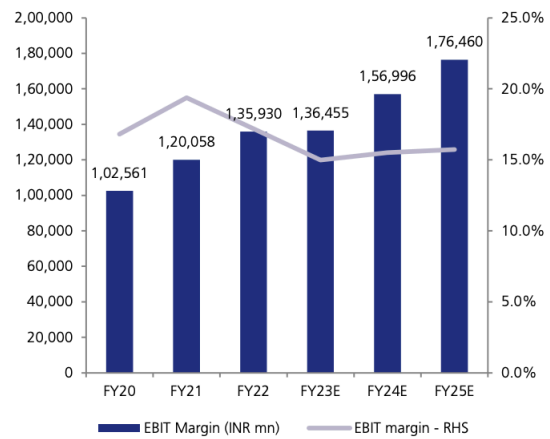
Source: Company data, JM Financial. Note: Valuations as of 08/Dec/2022

Exhibit 1. USD revenue forecast - Wipro



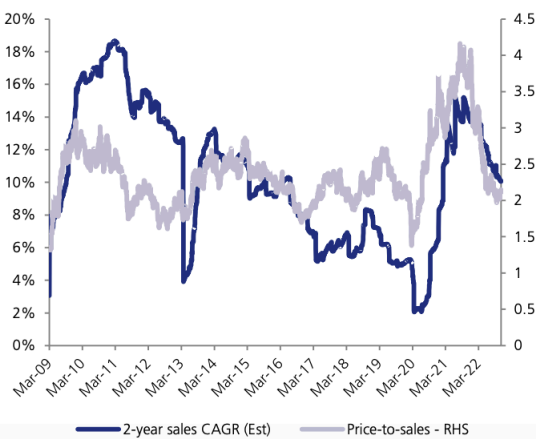
Source: Company, JM Financial estimates

Exhibit 2. EBIT Margin forecast - Wipro



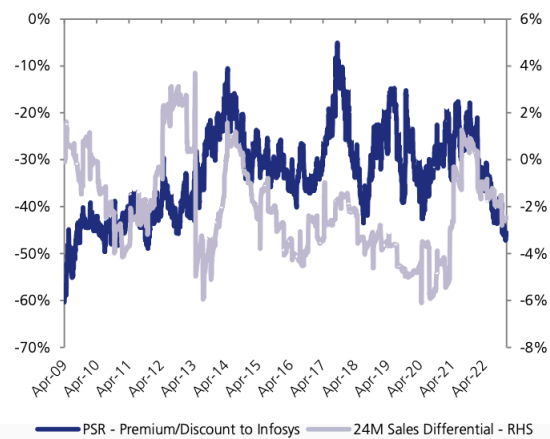
Source: Company, JM Financial estimates

Exhibit 3. Price-to-Sales valuation chart



Source: Bloomberg, JM Financial

Exhibit 4. Price-to-sales valuation differential with Infosys



Source: Company, Bloomberg, JM Financial

# CREDESCENCE CAPITAL

(Investment Club of IIM Lucknow)

Under the new leadership, Wipro (WPRO) has chosen “simplicity over perfection,” and the organisational changes such as reducing the number of internal P&Ls should encourage more collaboration across the organisation and turn its focus back to customer penetration and servicing. New CEO had emphasised the need to create a truly global and diverse WPRO, and the senior hires reflect this thinking and ambition.

Wipro has taken some big bets in its focus areas through acquisitions, also the company is forming partnerships with Hyperscalers to set the stage for long-term growth.

Building Cloud capabilities, focus on improving efficiencies, redesigned hiring model to focus more on fresher, balanced approach between mining and hunting; WPRO seems to be doing all right things. Despite all these, revenue growth slowed down in the last two/three quarters with significant pressure on margins.

Under the new leadership, WPRO has chosen “simplicity over perfection,” and we think the organisational changes such as reducing the number of internal P&Ls and the metrics monitored to a few key ones should encourage more collaboration across the organisation and turn the energy back to customer penetration and servicing. Mr. Thierry grouped the go-to-market more broadly to free up the CEO’s time to focus on strategy and empowered his direct reportees to take more decisions on their own. We see this as a significant cultural change and results are visible in the recent past.

# CREDENCE CAPITAL

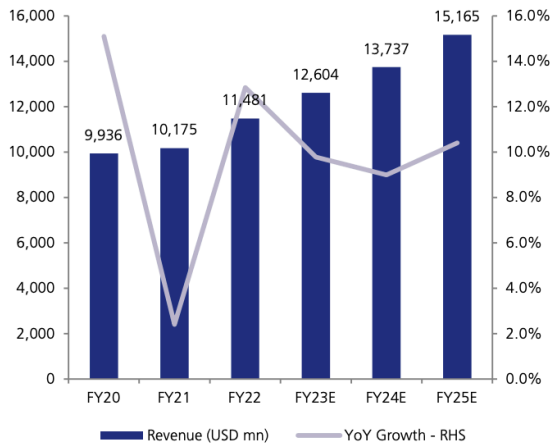
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## HCL Tech

Financial Summary					(INR mn)
Y/E March	FY21A	FY22A	FY23E	FY24E	FY25E
Net Sales	7,53,790	8,56,510	10,09,341	11,19,544	12,35,975
Sales Growth	6.7%	13.6%	17.8%	10.9%	10.4%
EBITDA	2,07,750	2,05,300	2,22,527	2,51,182	2,74,219
EBITDA Margin	27.6%	24.0%	22.0%	22.4%	22.2%
Adjusted Net Profit	1,29,410	1,34,690	1,44,046	1,68,289	1,81,524
Diluted EPS (Symbole)	53.3	33.1	53.1	62.0	66.9
Diluted EPS Growth	30.8%	21.4%	60.4%	16.8%	7.9%
ROIC	29.1%	28.9%	31.8%	36.2%	39.6%
ROE	22.7%	21.8%	23.4%	27.5%	28.7%
P/E (x)	20.6	33.3	20.7	17.8	16.5
P/B (x)	4.3	4.8	4.9	4.9	4.6
EV/EBITDA (x)	13.6	13.7	12.7	11.3	10.2
Dividend Yield	2.4%	6.0%	3.6%	4.4%	4.7%

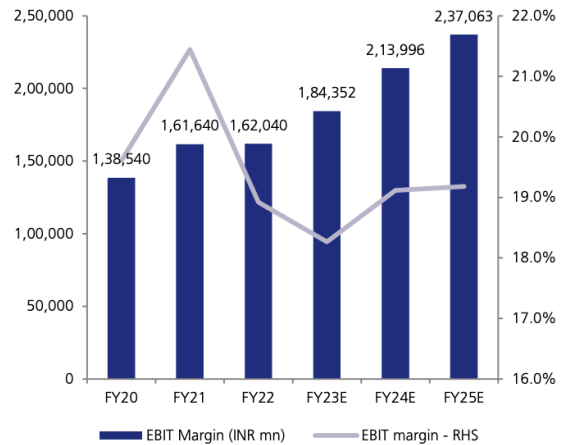
Source: Company data, JM Financial. Note: Valuations as of 08/Dec/2022

Exhibit 1. USD revenue forecast – HCL Tech



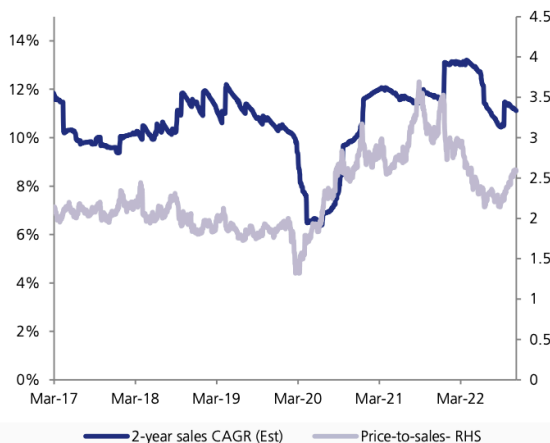
Source: Company, JM Financial estimates

Exhibit 2. EBIT Margin forecast – HCL Tech



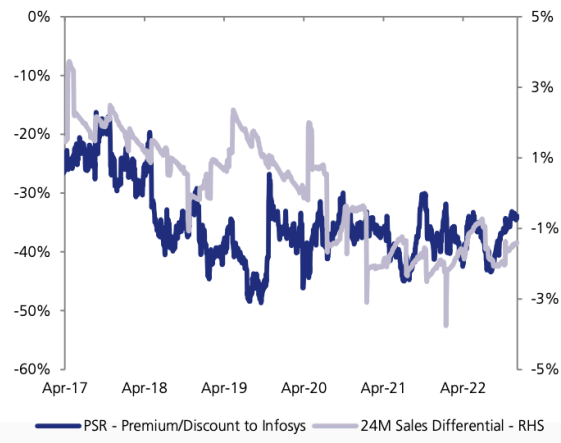
Source: Company, JM Financial estimates

Exhibit 3. Price-to-Sales valuation chart



Source: Bloomberg, JM Financial

Exhibit 4. Price-to-sales valuation differential with Infosys



Source: Company, Bloomberg, JM Financial



# CREDESCENCE CAPITAL

(Investment Club of IIM Lucknow)

HCL Technologies (HCLT) had strong consistent organic incremental revenue addition between CY10-15 as its Infrastructure Management Services (IMS) delivered many large deal wins. However, higher IMS component and lower digital business is impacting the performance this time.

HCLT's IT services and ER&D segments grew at strong pace of 14.5%/16.8% YoY in FY22 led by consistent strong deal win momentum. Deal TCV has grown 15% YoY in FY22. However, P&P business is dragging down overall growth and is expected to report muted growth going forward also. 25% of P&P portfolio is comprised of end-of-life products and licence-based pricing makes the revenue unpredictable.

With salary hikes and promotion cycle due in for FY23, HCLT is expected to take time to recover from existing margin pressure. The company has guided for 18-21% EBIT margin for FY23.

HCLT had strong consistent organic incremental revenue addition from CY10-15, as its IMS delivered many large deal wins. However, higher IMS component and lower digital business is impacting the performance of the company this time. We think the poor performance in FY22 was largely to do with shift in Cloud native development and SaaS model in the post Covid-19 world. EBIT margin also fell below pre-Covid levels in FY22.

# CREDENCE CAPITAL

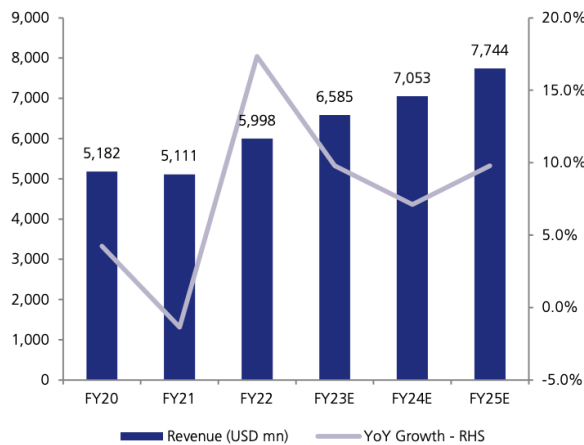
(Investment Club of IIM Lucknow)

## Tech Mahindra

Financial Summary					(INR mn)
Y/E March	FY21A	FY22A	FY23E	FY24E	FY25E
Net Sales	3,78,551	4,46,460	5,28,489	5,74,795	6,31,104
Sales Growth (%)	2.7	17.9	18.4	8.8	9.8
EBITDA	68,470	80,201	83,378	93,170	1,02,554
EBITDA Margin (%)	18.1	18.0	15.8	16.2	16.3
Adjusted Net Profit	44,787	55,662	52,668	58,472	66,077
Diluted EPS (INR)	50.8	62.9	59.5	66.0	74.6
Diluted EPS Growth (%)	5.1	23.5	-5.4	11.0	13.0
ROIC (%)	26.8	24.7	20.1	21.6	23.1
ROE (%)	19.2	21.5	19.2	19.6	19.6
P/E (x)	21.1	17.1	18.1	16.3	14.4
P/B (x)	3.8	3.5	3.4	3.0	2.7
EV/EBITDA (x)	13.5	12.6	12.1	10.6	9.3
Dividend Yield (%)	4.2	4.6	3.5	2.5	2.5

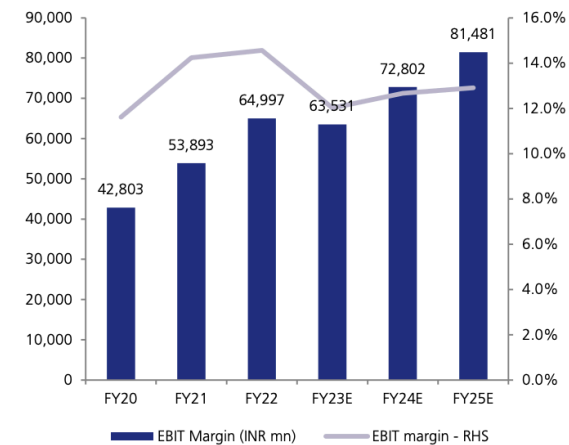
Source: Company data, JM Financial. Note: Valuations as of 08/Dec/2022

Exhibit 1. USD revenue forecast - TechM



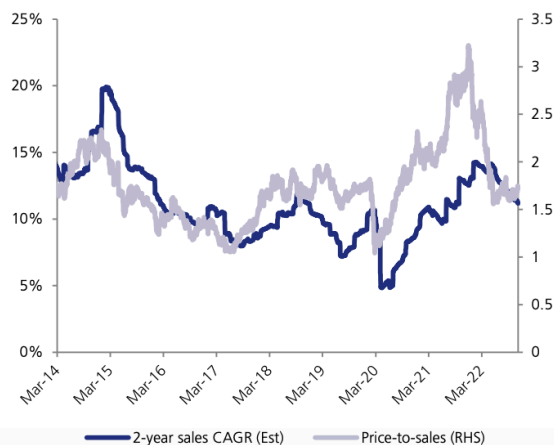
Source: Company, JM Financial estimates

Exhibit 2. EBIT Margin forecast - TechM



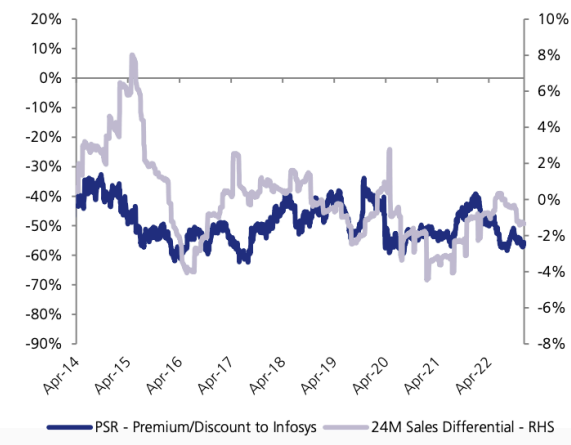
Source: Company, JM Financial estimates

Exhibit 3. Price-to-Sales valuation chart



Source: Bloomberg, JM Financial

Exhibit 4. Price-to-sales valuation differential with Infosys



Source: Company, Bloomberg, JM Financial

# CREDESCENCE CAPITAL

(Investment Club of IIM Lucknow)

Tech Mahindra's (TECHM) historical performance indicates elongated period of underperformance, both in growth and margin; 5G tailwind may change that in favour of the company over the next few years.

TECHM is targeting 4 more verticals (BFSI, Manufacturing, Healthcare and Hi-Tech) to US\$ 1 bn revenue in order to bring scale in the Enterprise segment. These verticals will be penetrated through competencies, like Cloud, Engineering Services and Experience Design. The company also has target to accelerate the momentum of incubating SaaS Platform. After aggressive acquisitions, the management's focus on consolidation and organic growth in FY23 is a welcome move.

Despite higher deal wins, higher manpower addition and continuous investment, TECHM's revenue growth slowed down in the last two-three quarters. EBIT margin pressure needs a close watch and considering the salary hike due in 2Q, margin recovery will take more time than previous estimates.

Over the last five years, TECHM reported CAGR of 6.8% which is lowest among Indian peers. When we compare overall growth rates of FY22, the company seems to be doing reasonably well versus the peer group. But the series of tuck-in acquisitions and integrations make it difficult for investors to assess organic growth. In FY22, TECHM reported organic growth of 13% and margin of 14.6% which were lowest amongst its peers.

## EMERGING TRENDS

### Global delivery model

- Indian software product industry is expected to reach US\$ 100 billion by 2025. Indian companies are focusing on investing internationally to expand their global footprint and enhance their global delivery centres.
- In line with this, in February 2021, Tata Consultancy Services announced plans to recruit 1,500 technology employees across the UK over the next year. The development would build capabilities for TCS to deliver their services efficiently to the UK customers.

### India to become the data annotation and labelling hub

- The data annotation market in India stood at US\$ 250 million in FY20, of which the US market contributed almost 60% to the overall value. The market is expected to reach US\$ 7 billion by 2030 due to accelerated domestic demand for AI.

### New technologies

- Disruptive technologies such as cloud computing, social media and data analytics are offering new avenues of growth across verticals for IT companies.
- The SMAC (social, mobility, analytics, cloud) market stood at US\$ 225 billion in 2020.
- In June 2022, ZStack International, a worldwide market leader in cloud computing, IaaS and PaaS solutions, announced that they were entering into India and the SAARC Region.
- American-Irish consumer credit reporting company Experian is planning a major expansion of its global innovation centre (GIC) in Hyderabad to about 4,000 employees over the next three to five years. According to sources, GIC will concentrate on employing emerging technologies in the BFSI (banking, financial services, and insurance) sector, including cloud computing, big data analytics, artificial intelligence, and machine learning.

### Cloud Platform

- Key players are focusing on differentiated cloud products/platforms to avail a competitive advantage over other industry players.
- In August 2022, PwC India announced that it was planning to hire 10,000 employees in the cloud and digital technologies space over the next five years.
- In January 2022, Google announced plans to invest US\$ 1 billion in India's Bharti Airtel Ltd. to push India's digital ecosystem.

### Large players gaining advantage

- Large players with a wide range of capabilities are gaining ground as they move from being simple maintenance providers to fullservice players, offering infrastructure, system integration and consulting services.
- Of the total revenue, about 80% is contributed by 200 large and medium players.

### Expansion

- In August 2021, Wipro launched @now Studio in Texas, to expand its digital and cyber defense centre.
- In July 2021, TCS announced a plan to expand its graduate training programme and

# CREDESCENCE CAPITAL

(Investment Club of IIM Lucknow)

employment opportunities in Malaysia.

- In July 2021, TCS announced plans to expand in Arizona by investing >US\$ 300 million by 2026 and recruiting >220 employees by 2023.

## Partnership

- In July 2022, T-Hub, which leads India's innovation ecosystem, announced its partnership with Pontaq, a Cross Border Innovation Fund investing in early-stage technology businesses across the UK, US, India and Canada. Through this partnership, T-Hub and Pontaq hope to promote a comprehensive innovation ecosystem in the nation and encourage tech-driven enterprises.
- In November 2021, Wipro partnered with TEOCO to build solutions for communication service providers (CSPs) to improve network automation, efficiency, flexibility and reliability

## Most lucrative sector for investments

- The computer software and hardware sector in India attracted cumulative FDI inflows worth US\$ 85.51 billion between April 2000- March 2022, according to the data released by Department for Promotion of Industry and Internal Trade (DPIIT).

## Deployment to a modern cloud

- In June 2022, Redington India, an IT provider, entered into a multi-year strategic agreement with Amazon Web Services (AWS) to drive cloud technology adoption in India.
- In June 2022, German tech major SAP AG launched its metaverse initiative in India, aimed at accelerating cloud adoption among Indian enterprises.
- In July 2021, TCS launched Jile 5.0, a key release of its Enterprise Agile, on-the-cloud services, planning and delivery tool that enables enterprises to meet the large-scale development needs of multiple distributed teams.

## RECENT DEVELOPMENTS

Indian IT's core competencies and strengths have attracted significant investment from major countries and companies.

- In November 2022, Amazon Web Services announced the launch of its second AWS infrastructure region in India - the AWS Asia Pacific (Hyderabad) Region. By 2030, it is anticipated that the region will support more than 48,000 full-time jobs annually thanks to investments totaling more than US\$ 4.4 billion in India.
- In November 2022, Google established a partnership with local gaming startup SuperGaming through its Google Cloud division. As part of the collaboration, game developers who use Google Cloud to create, host, and distribute their games will have access to SuperGaming's SuperPlatform game engine.
- HDFC Bank has partnered with Flywire to enable their customers to make fee payments digitally to overseas colleges and universities.
- In August 2022, Network People Services Technologies (NPST) announced that it was working on a banking super app. The high-end platform can be used by banks, fintech companies, and other BFSI players, and it will offer a seamless user experience with all banking, financial, and transactional services combined into a robust, smart app.
- In August 2022, PwC India announced that it was planning to hire 10,000 employees in the cloud and digital technologies space over the next five years.
- In October 2022, PE/VC investments in the technology sector stood at US\$ 157 million across 12 deals.
- The computer software and hardware sector in India attracted cumulative foreign direct investment (FDI) inflows worth US\$ 88.94 billion between April 2000-June 2022. The sector ranked second in FDI inflows as per the data released by Department for Promotion of Industry and Internal Trade (DPIIT). Computer software and hardware make up 14.70% of the cumulative FDI inflows.
- In July 2022, the Union Bank of India (UBI) launched a Metaverse Virtual Lounge and Open Banking Sandbox environment in partnership with Tech Mahindra.
- In June 2022, ZStack International, a worldwide market leader in cloud computing, IaaS and PaaS solutions, announced that they were entering into India and the SAARC Region.
- In June 2022, Redington India, an IT provider, entered into a multi-year strategic agreement with Amazon Web Services (AWS) to drive cloud technology adoption in India.
- American-Irish consumer credit reporting company Experian is planning a major expansion of its global innovation centre (GIC) in Hyderabad to about 4,000 employees

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over the next three to five years. According to sources, GIC will concentrate on employing emerging technologies in the BFSI (banking, financial services, and insurance) sector, including cloud computing, big data analytics, artificial intelligence, and machine learning.

- In 2021, PE investments in the IT sector stood at US\$ 23.4 billion.
- India's IT startup ecosystem has received record investments of nearly US\$ 36 billion in privately held companies in 2021, up from US\$ 11 billion in 2020.
- In March 2022, Licious, India's largest tech-first, fresh animal protein brand, raised US\$ 150 million in a Series F2 funding round.
- In March 2022, Byju's raised US\$ 800 million in funding as part of a pre-IPO round, which values the Bengaluru-based company at about US\$ 22 billion.
- In March 2022, debt marketplace CredAvenue raised US\$ 137 million in a funding round led by Insight Partners, B Capital Group and Dragoner Investment Group, which propelled the startup's valuation to US\$ 1.3 billion.
- In February 2022, Hasura, a software company which helps developers with tools, raised US\$ 100 million in a fresh funding round led by Greenoaks Capital, which elevate the company into a unicorn.
- In January 2022, Google announced plans to invest US\$ 1 billion in India's Bharti Airtel Ltd. to push India's digital ecosystem.
- Amazon has partnered with Airtel to sell Amazon Web Services (AWS) to its customers and intends to inject US\$ 1.6 billion in their two upcoming data centres in Hyderabad.
- In November 2021, Wipro partnered with TEOCO to build solutions for communication service providers (CSPs) to improve network automation, efficiency, flexibility and reliability.
- In August 2021, Tata Consultancy Services was adjudged a leader in the NelsonHall NEAT for CX Services in Banking, Financial Services and Insurance (BFSI).

## GOVERNMENT INITIATIVES

Some of the major initiatives taken by the government to promote the IT in India are as follows:

- In September 2022, the new Telecommunications Bill 2022 was published for public consultation by the Ministry of Communications as a move toward creating a new telecom framework in India.
- In August 2022, the Indian Computer Emergency Response Team (CERT-In), in collaboration with the Cyber Security Agency of Singapore (CSA), successfully planned and carried out the "Synergy" Cyber Security Exercise for 13 countries to build network resilience against ransomware attacks.
- In June 2022, STPI Director General Mr. Arvind Kumar stated that exports through STPI units have increased from Rs. 17 crore (US\$ 2.14 million) in FY92 to Rs. 5.69 lakh crore (US\$ 71.65 billion) in FY22.
- In May 2022, it was announced that Indians can now avail their Digilocker services through Whatsapp to get easy access to their official documents.
- In April 2022, the Indian Computer Emergency Response Team (CERT-In) issued Directions to strengthen the cybersecurity in the country.
- In the Union Budget 2022-23, the allocation for IT and telecom sector stood at Rs. 88,567.57 crore (US\$ 11.58 billion).
- The government introduced the STP Scheme, which is a 100% export-oriented scheme for the development and export of computer software, including export of professional services using communication links or physical media.
- In November 2021, the government launched the Internet Exchange in Uttarakhand to enhance the quality of internet services in the state.
- The Karnataka government has signed three MoUs worth US\$ 13.4 million (Rs. 100.52 crore) to help the state's emerging technology sector.
- In September 2021, the Indian government announced a plan to build a cyber-lab for the 'Online Capacity Building Programme on Crime Investigation, Cyber Law and Digital Forensics' to strengthen cyber security capabilities.
- In September 2021, the Ministry of Electronics and Information Technology (MeitY) organised a workshop under the theme of 'Connecting all Indians' to promote public and private stakeholders' interest in the country and expand internet access to remote areas.
- In September 2021, the Indian government launched the Meghalaya Enterprise Architecture Project (MeghEA) to boost service delivery and governance in the state by leveraging digital technologies, to make Meghalaya a high-income state by 2030.



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- In September 2021, the Indian government launched Phase II of Visvesvaraya PhD Scheme to encourage research in 42 emerging technologies in information technology (IT), electronics system design & manufacturing (ESDM) and information technology enabled services (ITES).
- In September 2021, the Indian government inaugurated five National Institute of Electronics & Information Technology (NIELIT) Centres in three North-Eastern states to boost availability of training centres and employment opportunities.
- On July 2, 2021, the Ministry of Heavy Industries and Public Enterprises launched six technology innovation platforms to develop technologies for globally competitive manufacturing in India. The six technology platforms have been developed by IIT Madras, Central Manufacturing Technology Institute (CMTI), International Centre for Automotive Technology (iCAT), Automotive Research Association of India (ARAI), BHEL, and HMT, in association with IISc Bangalore.
- The Department of Telecom, Government of India and Ministry of Communications, Government of Japan, signed an MoU to enhance cooperation in areas of 5G technologies, telecom security and submarine optical fibre cable system.

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