HDFC securities
Click. Invest. Grow.
20+ YEARS

SECTOR THEMATIC

Electronics Manufacturing Services

Electronics Manufacturing Services

To elevate India as a premier global destination for electronics manufacturing, the government has implemented a comprehensive set of incentives aimed at improving critical infrastructure and reducing manufacturing and capital expenditure costs. These initiatives are poised to propel strong growth (expected at 30% or more) in India's nascent EMS industry, potentially elevating its share in the global EMS market from 2% to 7%. This growth is underpinned by several factors, including (1) large captive demand (with per capita consumption of electronics only a quarter of the global average); (2) the proliferation of electronics in everyday products; (3) import substitution strategies; and (4) rising exports. Moreover, concerted efforts are being made to develop the entire EMS value chain, fostering increased value addition and the creation of a local component ecosystem, which could further enhance the industry's cost competitiveness.

We initiate coverage on Dixon with an ADD rating (TP of INR 7,700 at 50x FY26 EPS); Amber with a BUY rating (TP of INR 4,200 at 38x FY26 EPS) and Syrma with a BUY rating (TP of INR 620 at 40x FY26 EPS). We have downgraded our rating on Kaynes from BUY to ADD (TP of INR 3,000 at 45x FY26 EPS).

Paarth Gala
paarth.gala@hdfcsec.com
+91-22-6171-7336

INSTITUTIONAL RESEARCH

Electronics Manufacturing Services

In the infancy of multi-year growth story

To elevate India as a premier global destination for electronics manufacturing, the government has implemented a comprehensive set of incentives aimed at improving critical infrastructure and reducing manufacturing and capital expenditure costs. These initiatives are poised to propel strong growth (expected at 30% or more) in India's nascent EMS industry, potentially elevating its share in the global EMS market from 2% to 7%. This growth is underpinned by several factors, including (1) large captive demand (with per capita consumption of electronics only a quarter of the global average); (2) the proliferation of electronics in everyday products; (3) import substitution strategies; and (4) rising exports. Moreover, concerted efforts are being made to develop the entire EMS value chain, fostering increased value addition and the creation of a local component ecosystem, which could further enhance the industry's cost competitiveness.

We initiate coverage on Dixon with an ADD rating (TP of INR 7,700 at 50x FY26 EPS); Amber with a BUY rating (TP of INR 4,200 at 38x FY26 EPS) and Syrma with a BUY rating (TP of INR 620 at 40x FY26 EPS). We have downgraded our rating on Kaynes from BUY to ADD (TP of INR 3,000 at 45x FY26 EPS).

- **Opportunities galore for Indian EMS players:** India's EMS industry is relatively young (2-3% of the global EMS market) and it has grown in prominence only over the past 6-7 years. However, it is expected to grow at 30%+ CAGR over FY23-28E to reach INR 9trn. This growth will be led by (1) a populous base and rising aspiration levels ensuring large captive electronics demand; (2) low per capita electronics consumption (a quarter of the global average); and (3) government's push for making India a global hub for electronics manufacturing. Currently, c.30% of India's total local consumption is imported, which is expected to fall below 10% by FY28. Moreover, the increasing share of exports (35% of total production by FY28) will help transform India into a net exporter of electronics.
- **India viewed as an attractive manufacturing destination:** China dominates the global EMS market with a c.47% share. However, post-COVID-19, many global electronic manufacturers are contemplating on China + 1 strategy, thereby looking for alternative manufacturing locations for exports. With the electronics sector being recognized as one of the key growth drivers for the Indian economy, the government has been proactively building a base for electronics manufacturing in India and has launched numerous incentive schemes (National Policy on Electronics, Phased Manufacturing Program, Electronics Manufacturing Clusters, PLI, etc.) which have allowed manufacturing growth, reduced dependence on imports, and promoted exports. India's share in the global market is expected to rise to 7% by CY26.
- **Rich valuations to sustain:** India's EMS industry is still in its infancy and possesses multi-year growth potential. We note that Hon Hai reported revenue/EBITDA/PAT CAGRs of 23/16/15% over CY2000-2022 (31/23/21% over CY2000-2015) with cumulative OCF/NPAT at 120%, which displays a strong trait of EMS players' ability to maintain NWC prudently despite rapid growth. Based on reverse DCF, at CMP, the implied revenue CAGR across our coverage universe is 15-30% over the next decade, which, in our view, looks achievable, given India's EMS industry is at an inflection point. Hence, we do not expect any significant de-rating for the stocks, even though the stocks are currently trading at rich valuations.
- **Key risks:** (1) any adverse change in government policies; (2) subdued demand leading to order delays. (3) competition from global EMS players setting up shop in India; (4) global supply chain constraints; (5) other competing countries rolling out incentives.

Companies	CMP	Rating
Dixon Technology	7,161	ADD
Kaynes Technology	2,797	ADD
Amber Enterprises	3,552	BUY
Syrma SGS Technologies	482	BUY

Paarth Gala
paarth.gala@hdfcsec.com
+91-22-6171-7336

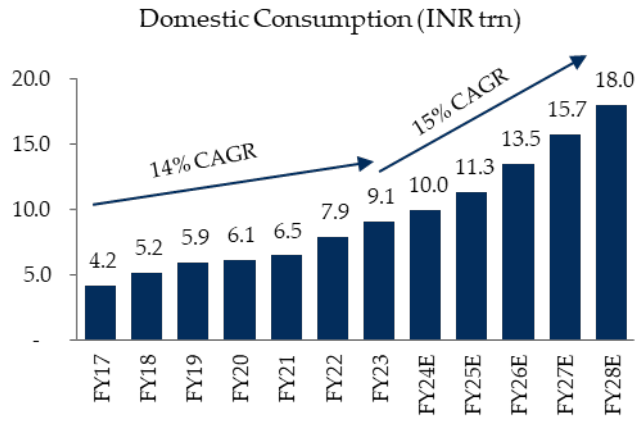
Contents

Executive Summary

Atmanirbhar Bharat—From "Local" to "Glocal"

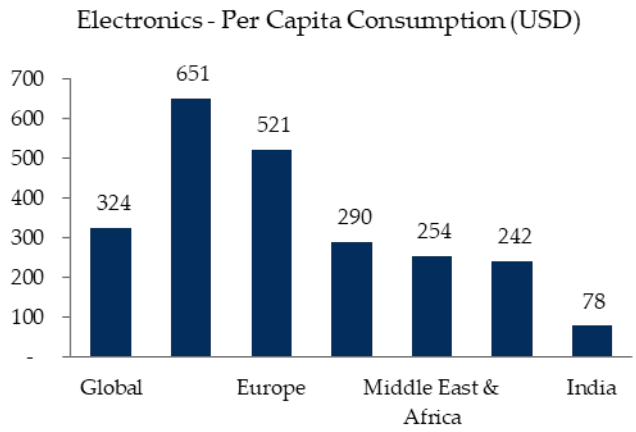
With the ever-increasing use of electronics in one's day-to-day life, the electronics industry has been one of the fastest-growing industries, especially in India. India's per capita consumption of electronics is just a quarter of the global average. With increasing urbanisation, adoption of electronics products in tier 2/3 cities, and India having recently breached the USD 2,000 per capita income mark (traditionally an inflexion point as seen in China, Thailand, and Indonesia), we expect a spurt in consumption growth in coming years. India's domestic electronics consumption is expected to grow at 15% CAGR over FY23-28E to INR 18trn.

Exhibit 1: Domestic consumption to grow at 15% CAGR



Source: Frost & Sullivan, HSIE Research

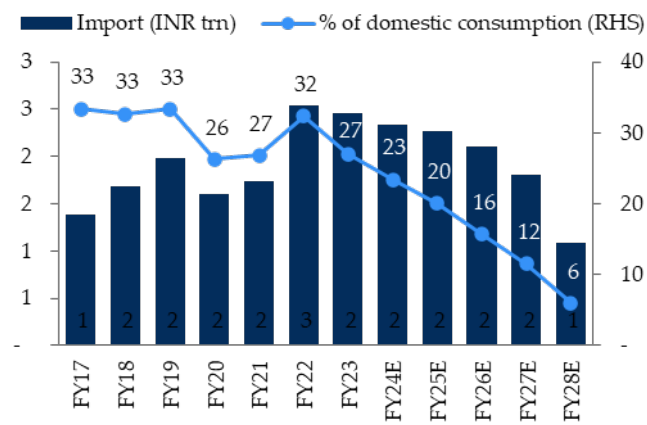
Exhibit 2: India's consumption at 1/4th of global average



Source: Kaynes placement document, HSIE Research

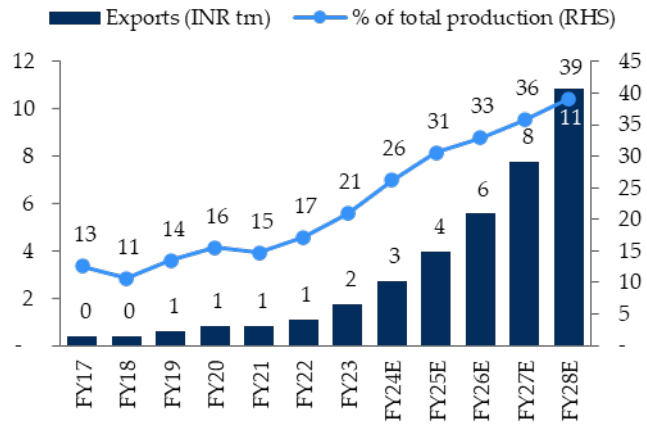
Currently, almost 30% of India's total local consumption is being imported. With the recognition of the electronics sector as one of the key growth drivers for the Indian economy, the sector has received significant attention from the government in the last 6-7 years to elevate India as a premier global destination for electronics manufacturing. To support this transformation, a comprehensive set of incentives has been instituted to catalyse the development of critical infrastructure and drive down manufacturing and capital expenditure costs. As a result, India's electronics manufacturing production is to grow at a CAGR of 27% over FY23-28E. Reducing import dependency and increasing export saliency will make India a net exporter of electronics.

Exhibit 3: Dependency on imports to reduce



Source: Frost & Sullivan, HSIE Research

Exhibit 4: Exports to grow at 44% CAGR over FY23-28E

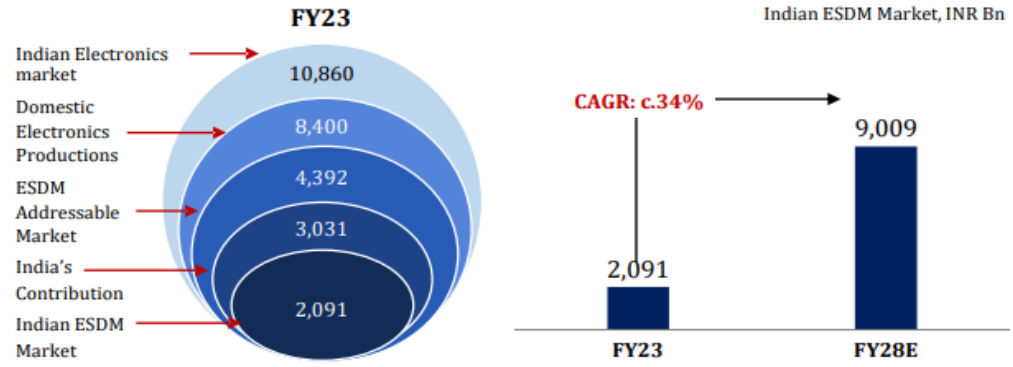


Source: Kaynes placement document, HSIE Research

India's EMS industry is in the infancy of a multi-year growth story

India's EMS industry is relatively young (2-3% of the global EMS market) and it has grown in prominence only over the past 6-7 years. However, it is expected to grow at 30%+ CAGR over FY23-28E to reach INR 9trn. This growth will be led by (1) a populous base and rising aspiration levels ensuring large captive electronics demand; (2) low per capita electronics consumption (a quarter of the global average); and (3) the government's push for making India a global hub for electronics manufacturing.

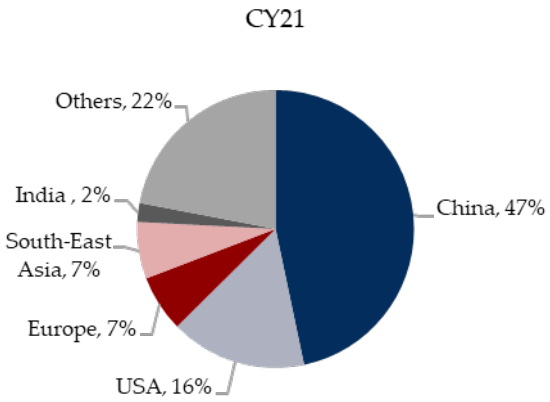
Exhibit 5: Overview of India's electronics and EMS industry



Source: Kaynes, HSIE Research

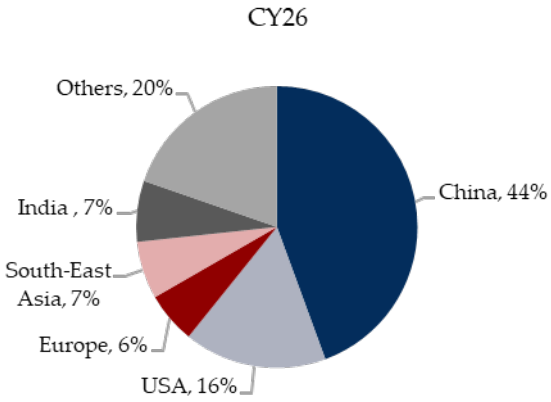
China dominates the global EMS market with a c.47% share. However, post-COVID-19, many global electronic manufacturers are contemplating on China + 1 strategy, thereby looking for alternative manufacturing locations for exports. With the Indian government's focus on making India globally competitive in electronics manufacturing through various policy support, the country's share in the global EMS market is expected to rise from 2% in CY21 to 7% by CY26.

Exhibit 6: China dominates the EMS market



Source: Frost & Sullivan, HSIE Research

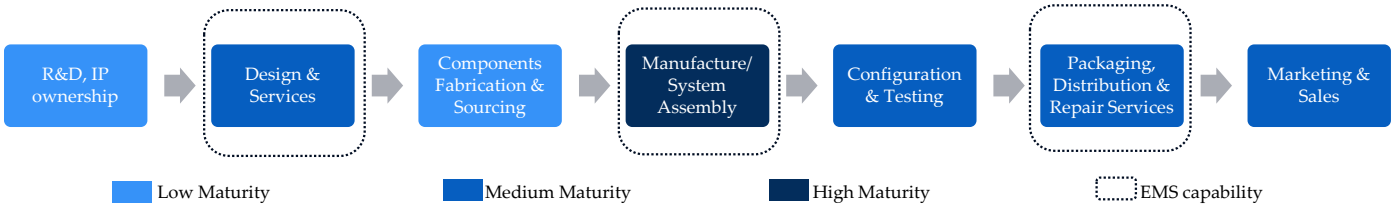
Exhibit 7: India's share to rise to 7% by CY26



Source: Frost & Sullivan, HSIE Research

Moreover, concerted efforts are being made to develop the entire EMS value chain, fostering increased value addition and the creation of a local component ecosystem, which could further enhance the industry's cost competitiveness.

Exhibit 8: Value chain of EMS industry in India



Source: Frost & Sullivan, HSIE Research

Exhibit 9: India EMS market by end-user segments

Products	FY23		FY28E		CAGR %
	INR (bn)	Mix %	INR (bn)	Mix %	FY23-28E
Mobile Phone	1,305	62%	5,333	59%	33%
CEA	299	14%	1,270	14%	34%
Automotive	90	4%	315	4%	29%
Industrial	75	4%	189	2%	20%
IT	71	3%	802	9%	62%
Telecom	75	4%	180	2%	19%
A&D	51	2%	256	3%	38%
Lighting	65	3%	216	2%	27%
Medical	40	2%	243	3%	44%
Others	20	1%	204	2%	59%
Total	**2,091**	**100%**	**9,009**	**100%**	**34%**

Source: Kaynes Placement Document, HSIE Research

Exhibit 10: Key growth drivers of various end-user segments

Industry	Industry CAGR (FY23-28E)	Growth Drivers
Mobile Phone	33%	▪ India is the world's second-largest manufacturing hub and market (11% of worldwide mobile phone production) ▪ PLI with an incentive outlay of c.INR 410bn.
CEA	34%	▪ Strong local market, low penetration levels, rising disposable income and changing lifestyles. ▪ PLI with an incentive outlay of c.INR 62bn.
Automotive	29%	▪ Themes such as connected, autonomous, shared and electric are driving digitalization. ▪ Significantly higher usage of electronics and controls in EV. ▪ ADAS, EV and safety are fast-emerging segments. ▪ India imported INR 160bn worth automotive electronics in FY20. ECUs, PCBs and electronic components make up 65% of auto electronics imports. ▪ PLI with an incentive outlay of c.INR 259bn.
Industrial	20%	▪ Large manufacturing companies investing heavily in technological upgradation by adopting digitization and industry 4.0 concepts. ▪ Smart metering in electricity/water/gas ▪ Rapid adoption of modern technology, backed by cost saving features. ▪ Home grown companies being preferred over Chinese
IT	62%	▪ The OEMs' requirements in this industry are PCBA, testing and packaging and box build capabilities, as well as supply chain management. ▪ Supply remains relatively lower than current demand in the country. ▪ PLI with an incentive outlay of c.INR 169bn.
Telecom	19%	▪ India is one of the largest exporters of telecom equipment. ▪ Increased outsourcing to companies with design, logistics and after sales support. ▪ Data centre storage solutions, BTS, GPON, IP PBX, Network infra (4G; 5G) related solutions. ▪ PLI with an incentive outlay of c.INR 122bn.
Aerospace & Defence	38%	▪ A&D is one of the most complex and specialized industries in EMS. ▪ India ranked 19th among the world's defence exporters in attracting FDI. ▪ Relaxation in FDI in A&D sector aids in collaborating with global players to have a competitive edge in the market. ▪ The government is taking numerous initiatives to encourage local manufacturing and reduce its external dependence on defence procurement. ▪ Advancements in sophisticated equipment such as avionic systems, radar systems, flight management system (FMS), cockpit control units, etc. will further drive the A&D Electronics market in India
Medical	44%	▪ Increased demand for healthcare & medical devices resulting from rise in medical tourism. ▪ High speed analysis driving growth of medical equipment's market. ▪ Development of 'medical device parks' across – robust ecosystem for manufacturing in India. ▪ Major electronics in medical business includes MRI, X-Ray, Ultrasounds, and Patient Aids (hearing aids, pacemakers, etc.) ▪ PLI with an incentive outlay of c.INR 34bn.
Railways	45%	▪ Indian Railways is developing & creating technology in areas like signaling & telecommunication to be tailored with 'KAVACH', the locally developed Train Collision Avoidance System. ▪ The key signaling and telecom Upgrades on Indian Railways by 2026 include (a) Train collision avoidance system for a target of 37,000 km (b) Automatic block signaling for a total route of 15,500 km (c) Electronic interlocking across 1551 stations (d) 4G/LTE Based Wireless Communications for entire railway network (e) centralized traffic control for 11,000 km.

Globally, EMS companies exhibit high growth in the initial phase

Globally, companies have witnessed an extended period of high growth rates with healthy margins and return profiles. Consequently, as the industry began maturing and as the base caught up, there was a deceleration in growth and margins. However, since 2015, margins and return ratios have remained stable. We note that Hon Hai reported revenue/EBITDA/PAT CAGRs of 23/16/15% over CY2000-2022 (31/23/21% over CY2000-2015) with cumulative OCF/NPAT at 120%, which displays a strong trait of EMS players' ability to maintain NWC prudently despite rapid growth.

India's EMS industry has come into prominence only in the past 6-7 years. It is still in its infancy and possesses multi-year growth potential. Based on reverse DCF, at CMP, the implied revenue CAGR across our coverage universe is 15-30% over the next decade, which, in our view, looks achievable, given India's EMS industry is at an inflexion point. Hence, we do not expect any significant de-rating, despite the stocks currently trading at rich valuations.

Exhibit 11: Growth metrics of global players

Company	Starting Period	Revenue CAGR %		EBITDA CAGR %		PAT CAGR %	
		till 2015	2015-2023	till 2015	2015-2023	till 2015	2015-2023
Hon Hai Precision	1997	34%	4%	25%	1%	23%	0%
Pegatron	2010	18%	0%	23%	-7%	31%	-5%
Compal	1997	21%	1%	12%	2%	5%	-2%
Quanta Computer	2005	8%	1%	3%	10%	6%	11%
Wistron	2005	14%	4%	8%	18%	-10%	31%
Inventec	1997	13%	3%	6%	1%	2%	1%
Byd Electronic	2005	47%	20%	49%	12%	45%	11%
Universal Scientific	2010	15%	14%	7%	20%	4%	22%
Sanmina	1997	14%	4%	7%	9%	15%	-2%
Jabil	1997	18%	9%	14%	12%	10%	14%
Flex	1997	23%	7%	20%	5%	25%	4%

Source: Bloomberg; HSIE Research

Exhibit 12: Margins and return ratios have stabilized since 2015

Company	Starting Period	EBITDAM %						RoE %					
		1997	2000	2005	2010	2015	2016-2023 Avg	1997	2000	2005	2010	2015	2016-2023 Avg
Hon Hai Precision	1997	19%	13%	7%	4%	5%	4%	38%	26%	27%	17%	15%	11%
Pegatron	2010	na	na	na	4%	4%	3%	na	na	na	7%	17%	11%
Compal	1997	8%	8%	5%	3%	2%	2%	26%	20%	14%	22%	8%	8%
Quanta Computer	2005	na	na	4%	2%	3%	3%	na	na	16%	17%	13%	16%
Wistron	2005	na	na	3%	3%	2%	3%	na	na	16%	22%	2%	10%
Inventec	1997	9%	3%	2%	2%	3%	2%	45%	20%	0%	9%	10%	11%
Byd Electronic	2005	na	na	15%	11%	7%	9%	na	na	23%	15%	9%	14%
Universal Scientific	2010	na	na	na	7%	5%	6%	na	na	na	20%	11%	15%
Sanmina	1997	16%	14%	3%	5%	5%	5%	22%	17%	-36%	21%	27%	9%
Jabil	1997	11%	9%	6%	5%	6%	6%	34%	16%	10%	11%	12%	18%
Flex	1997	7%	7%	5%	4%	5%	5%	13%	11%	7%	1%	27%	14%

Source: Bloomberg, HSIE Research

Initiate coverage on Dixon Technologies with ADD an rating

- Dixon, one of the largest EMS players in India, is a compelling play on the government's push to make India a global destination for electronics manufacturing, given its large presence across several segments.
- Over the past decade, Dixon has exhibited superior execution capabilities, having grown its revenue/PAT at a CAGR of 32/48%, led by (1) deep understanding and expertise in electronics manufacturing; (2) ability to seed and scale new businesses; (3) deep backward integration to provide lowest BOM costs; (4) new customer addition and increasing wallet share amongst existing ones; (5) best in class manufacturing set-up and R&D centres; and (6) institutionalized processes.
- We believe the company has enough legs to grow at an accelerated rate over the next three years led by the mobile and EMS segment.
- We estimate Dixon's revenue/EBITDA/PAT to grow at a CAGR of 46/43/53% over FY23-26E. At CMP, the stock implies a revenue/EBIT CAGR of 26/27% over the next decade. We value the stock at 50x FY26 earnings (in-line with 5-year average) to arrive at a target price of INR 7,700. Initiate coverage with an ADD rating.

Initiate coverage on Amber Enterprises with BUY rating

- Amber, a dominant EMS player in the room AC (RAC) industry (value market share at c.29%), has evolved from being a pure-play RAC player to a comprehensive, backward integrated and diversified B2B solutions provider to the HVAC and electronics space.
- Over the past decade, Amber's revenue/PAT both have grown at 23% CAGR, led by (1) sustained market share gains in RAC; (2) integrated manufacturing facilities offering 65-70% of BoM to customers (increasing wallet share); and (3) diversification into electronics and mobility HVAC.
- In the wake of the changing RAC industry landscape (more in-sourcing from brands), Amber has proactively realigned its strategy by shifting focus towards the supply of components (market share up 450bps since FY21 despite falling CBU sales).
- Moreover, its presence in high-growth electronics (expanding user base) and railway mobility (increasing wallet share) segments through its acquired subsidiaries provides additional growth levers.
- We estimate Amber's revenue/EBITDA/PAT will grow at a CAGR of 13/25/33% over FY23-26E. At CMP, the stock implies a revenue/EBIT CAGR of 13%/19% over the next decade. We value the stock at 38x FY26 earnings to arrive at a target price of INR 4,200. Initiate coverage with a BUY rating.

Initiate coverage on Syrma SGS Technology with BUY rating

- Syrma is one of the prominent domestic EMS players and is well-placed to benefit from government's push on making India a manufacturing hub for electronics, given (1) its well-diversified business model with presence across several industry segments & low customer concentration; (2) its well-balanced mix between PCBA, RFIDs, box-builds, ODM and exports; (3) its strong manufacturing footprint with R&D capabilities and backward integration capabilities; and (4) its pursuit of inorganic growth opportunities.
- Syrma's margin has been under pressure over the past couple of years on account of (1) changing industry mix in favour of low margin/high asset turn prescriptive business (consumer) and (2) step up in capex outlay (INR 3.5bn over past 21 months) leading to lower asset turns as new capacities take time to scale.

- However, with improving scale of operations and working capital efficiency, we expect RoE/RoCE to improve here onwards to reach 14%/18% by FY26.
- We estimate Syrma's revenue/EBITDA/PAT to grow at a CAGR of 41/35/32% over FY23-26E. At CMP, the stock implies a revenue/EBIT CAGR of 30/31% over the next decade. We value the stock at 40x FY26 earnings to arrive at a target price of INR 620. Initiate coverage with a BUY rating

Downgrade rating on Kaynes Technology from BUY to ADD

- Kaynes is likely to be a key beneficiary of the government's thrust on electronics manufacturing, given its well-diversified business model catering to various end-use industry segments.
- Moreover, given a higher skew towards low-volume high-mix segments and box-build (9MFY24: 39%), Kaynes's EBITDAM is the highest amongst peers. Besides, Kaynes has also forayed into OSAT (Phase 1: INR 20bn) and bare PCB manufacturing (Phase 1 – INR 7.3bn), further backwards integrating into the EMS value chain. Whilst both these businesses can be margin accretive, their execution remains a key monitorable.
- We estimate Kaynes's revenue/EBITDA/PAT will grow at a CAGR of 47/46/53% over FY23-26E, largely led by the traditional EMS business as OSAT and bare PCB won't see any meaningful contribution before FY27-28.
- We value the traditional business at 45x P/E on FY26 EPS and add INR 405/180 per share for OSAT/bare PCB (discounting FY30 earnings by 13%) to arrive at a TP of INR 3,000. The current valuation of 52x FY26 earnings is baking in all the positives with little room for error. We downgrade our rating from BUY to ADD

Valuation Summary

Exhibit 13: Valuation Summary

Company	Mcap (INR bn)	CMP (INR)	TP (INR)	RECO	EPS (INR)				P/E (x)				EV/EBITDA (x)				Rev CAGR	EPS CAGR
					FY23	FY24E	FY25E	FY26E	FY23	FY24E	FY25E	FY26E	FY23	FY24E	FY25E	FY26E	FY23-26	FY23-26
Dixon	427	7,161	7,700	ADD	42.9	63.8	111.1	154.0	166.9	112.2	64.4	46.5	83.0	59.9	37.7	27.8	46	53
Kaynes	179	2,797	3,000	ADD	16.3	24.4	35.8	53.7	171.1	114.8	78.0	52.1	94.5	66.7	45.8	31.7	47	49
Amber	120	3,552	4,200	BUY	46.7	37.0	75.2	110.6	76.1	96.1	47.2	32.1	30.1	26.7	19.7	15.4	13	33
Syrma SGS	85	482	620	BUY	6.7	7.1	9.7	15.5	71.4	67.5	49.7	31.2	46.5	42.0	28.3	19.1	41	32

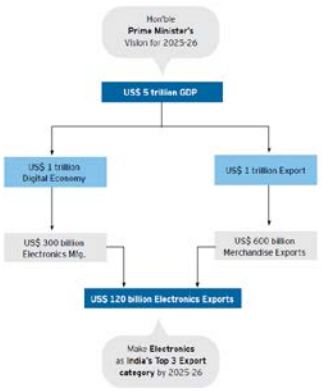
Source: Company, HSIE Research

Exhibit 14: Earnings Summary

Company	Revenue (INR mn)				EBITDA (INR mn)				EBITDA Margin %				PBT (INR mn)			
	FY23	FY24E	FY25E	FY26E	FY23	FY24E	FY25E	FY26E	FY23	FY24E	FY25E	FY26E	FY23	FY24E	FY25E	FY26E
Dixon	1,21,920	1,81,057	2,81,772	3,77,498	5,128	7,130	11,291	15,114	4.2	3.9	4.0	4.0	3,432	4,949	8,711	12,093
Kaynes	11,261	17,749	25,667	35,865	1,683	2,441	3,582	5,186	14.9	13.8	14.0	14.5	1,260	1,997	3,014	4,513
Amber	69,271	70,126	85,613	1,00,961	4,179	4,727	6,398	8,074	6.0	6.7	7.5	8.0	2,197	1,801	3,624	5,273
Syrma SGS	20,484	29,517	42,054	57,640	1,878	2,127	3,142	4,624	9.2	7.2	7.5	8.0	1,787	1,830	2,571	3,966

Company	APAT (INR mn)				RoE %				RoCE %				EV/Revenue (x)			
	FY23	FY24E	FY25E	FY26E	FY23	FY24E	FY25E	FY26E	FY23	FY24E	FY25E	FY26E	FY23	FY24E	FY25E	FY26E
Dixon	2,555	3,801	6,618	9,172	22.4	25.9	33.7	33.8	27.6	34.6	44.9	46.3	3.5	2.4	1.5	1.1
Kaynes*	950	1,557	2,291	3,430	16.4	15.0	18.6	22.6	21.9	21.0	24.1	28.0	14.1	9.2	6.4	4.6
Amber	1,572	1,246	2,535	3,726	8.6	6.3	11.7	15.1	11.0	10.4	14.5	17.3	1.8	1.8	1.5	1.2
Syrma SGS	1,193	1,261	1,716	2,735	11.3	7.9	10.0	14.4	15.1	10.9	13.4	18.2	4.3	3.0	2.1	1.5

Source: Company, HSIE Research *Kaynes RoE/RoCE ex of QIP fund raise of INR 14bn



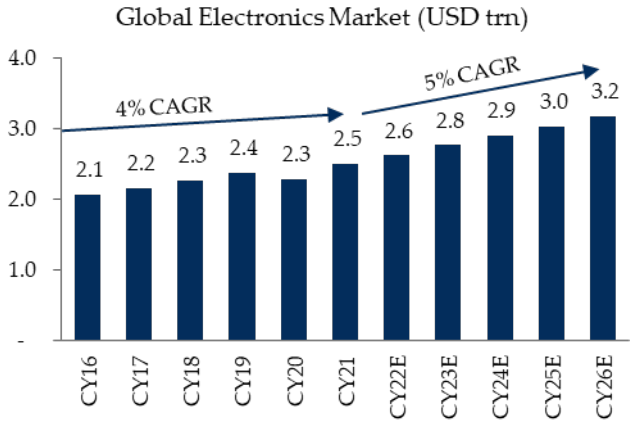
Atmanirbhar Bharat – From "Local" to "Glocal"

India's aim to become a USD 5 trillion economy by 2025-26 hinges significantly on ramping up its electronics manufacturing industry to USD 300 bn, a substantial leap from its current standing at USD 100 bn. With an ambitious target of exporting 40% of this production to global markets the government has shifted its approach from import substitution under the Phased Manufacturing Program to a 'Make In India for the World' strategy, embodied by the Production Linked Incentive scheme. This strategic pivot aims to position India as a premier global destination for electronics manufacturing. Embracing this forward-looking perspective promises to revolutionise India's manufacturing landscape, prioritising competitiveness, scalability, and export capacity. To support this transformation, a comprehensive set of incentives has been instituted to catalyse the development of critical infrastructure and drive down manufacturing and capital expenditure costs.

Indian Electronics Industry – long runway for growth

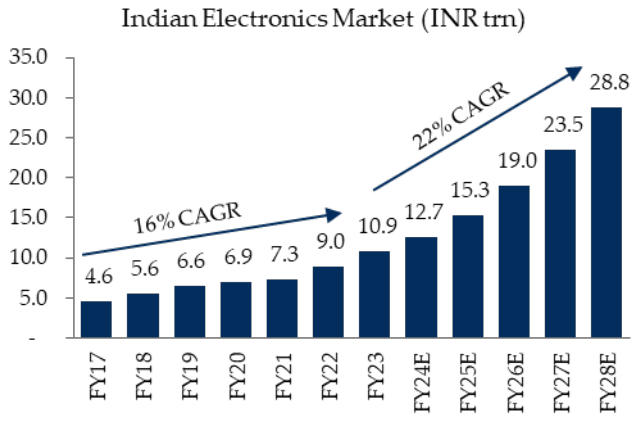
With the ever-increasing use of electronics in one's day-to-day life, the electronics industry has been one of the fastest growing industries, especially in India. While the global electronics industry is expected to grow at a 5% CAGR to USD3.2trn over CY21-26E, India's electronics industry is expected to grow at 22% CAGR to INR28.8trn (USD 0.4trn) over FY23-28E, led by (1) strong local consumption given low penetration levels, rising disposable income and changing lifestyles; (2) shorter electronic product lifecycle due to rapid technological advancement; (3) increased localisation of components making things more affordable and cost competitive; (4) changing geopolitical landscape (China+1); (5) industry 4.0, system automation; and (6) government policy initiatives to incentivise local manufacturing.

Exhibit 15: Global electronic market to touch 5% CAGR..



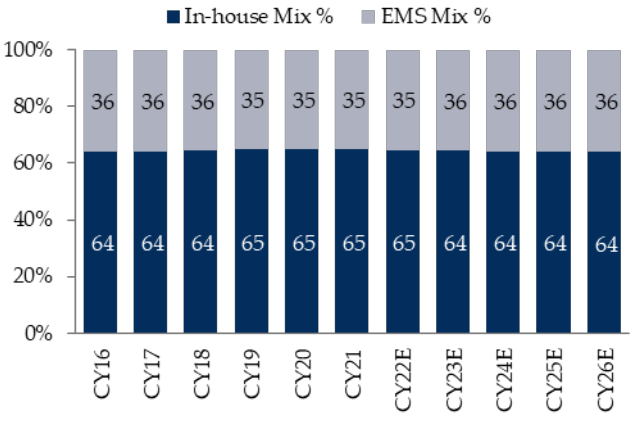
Source: Frost & Sullivan, HSIE Research

Exhibit 16: ..while Indian market to grow at 22% CAGR



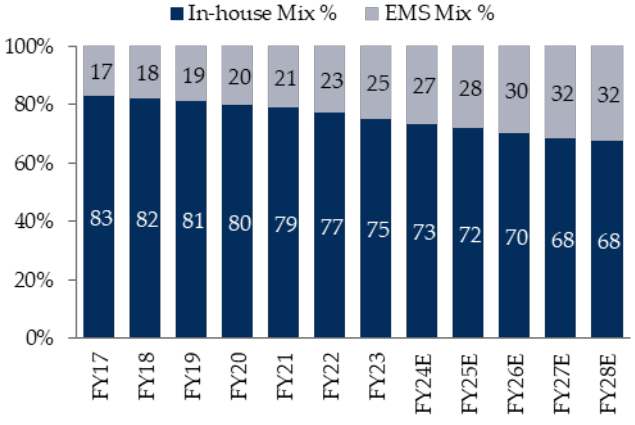
Source: Kaynes placement document, HSIE Research

Exhibit 17: Global EMS to see 5% CAGR over CY21-26E



Source: Frost & Sullivan, HSIE Research

Exhibit 18: India EMS to grow at 34% CAGR (FY23-28E)



Source: Kaynes placement document, HSIE Research

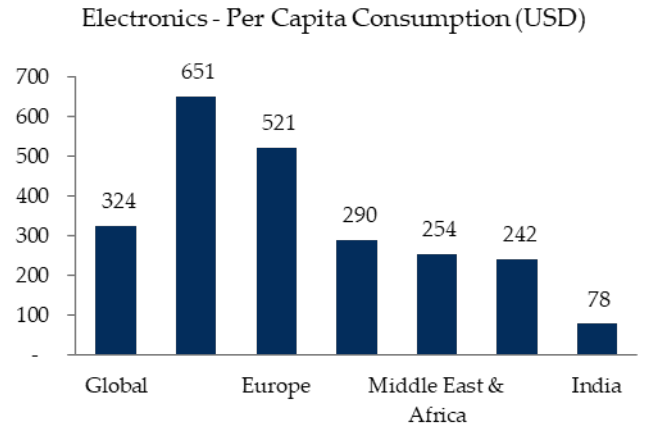
Exhibit 19: Electronics production to see 27% CAGR; mobile phone dominates

Products	FY23		FY28E		CAGR %
	INR (bn)	Mix %	INR (bn)	Mix %	FY23-28E
Mobile Phone	4,057	48%	14,890	54%	30%
CEA	1,512	18%	3,688	13%	20%
Industrial	983	12%	1,941	7%	15%
IT	470	6%	2,801	10%	43%
Automotive	344	4%	749	3%	17%
Telecom	311	4%	749	3%	19%
Medical	176	2%	471	2%	22%
Others	546	6%	2,440	9%	35%
Total	**8,400**	**100%**	**27,728**	**100%**	**27%**

Source: Kaynes Placement Document, HSIE Research

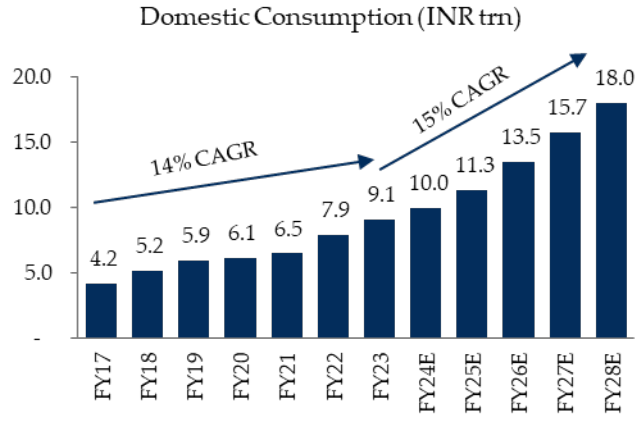
- **India's per capita consumption of electronics is well below global average:** Globally, per capita consumption of electronics currently stands at USD 324 and is only on its way up. Per capita consumption is increasing rapidly in major economies such as North America and Europe led by the growing adoption of wireless connectivity for several electronic devices. Coming to India, its per capita consumption of electronics is 1/4th of the global average at USD 78. With increasing urbanisation and adoption of electronics products in Tier 2/3 cities, domestic electronics consumption is expected to grow at 15% CAGR over FY23-28E to INR 18trn. Moreover, with India having recently breached the USD 2,000 per capita income mark (traditionally an inflexion point as seen in China, Thailand, and Indonesia), we expect a spurt in consumption growth in coming years.

Exhibit 20: India's consumption at 1/4th of global average



Source: Frost & Sullivan, HSIE Research

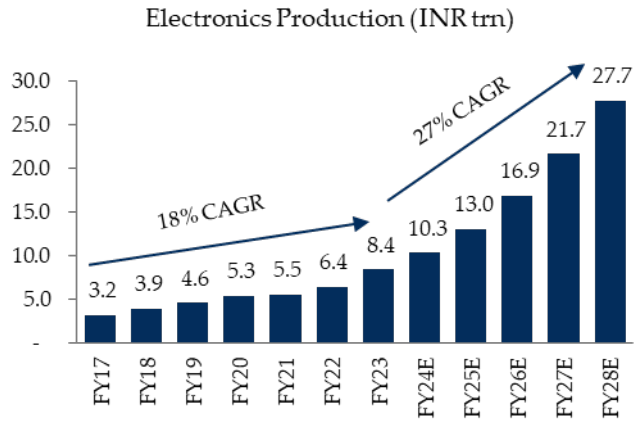
Exhibit 21: Domestic consumption to grow at 15%



Source: Kaynes placement document, HSIE Research

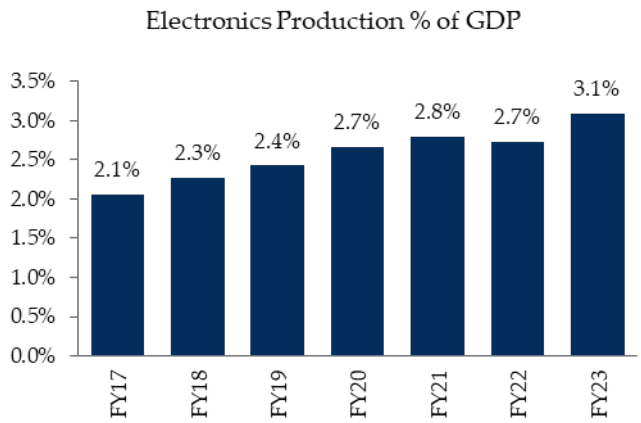
- **Contribution of electronics production in GDP set to rise:** In FY23, India produced electronics worth INR 8.4trn, contributing to 3.1% of the nominal GDP. With the government incentivising local production to make them more competitive with imports as well as for exports, India's electronics manufacturing industry is expected to grow at a CAGR of 27% over FY23-28E to c.INR 28trn, thereby increasing its contribution to GDP to 5-6%+.

Exhibit 22: Domestic production to grow at 27% CAGR



Source: Frost & Sullivan, HSIE Research

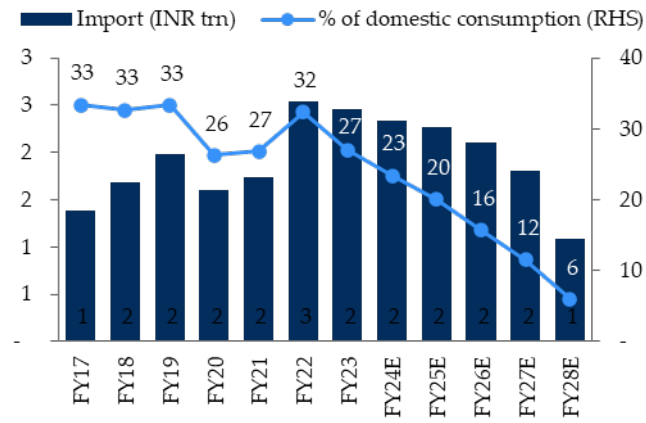
Exhibit 23: Contribution to GDP set to rise



Source: Frost & Sullivan, HSIE Research

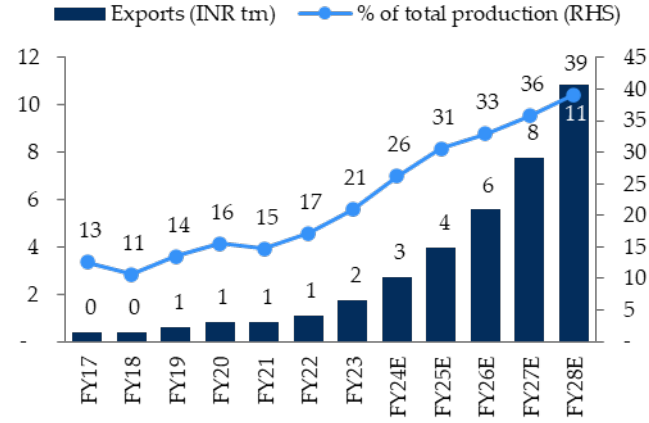
- **India to turn net exporter of electronic products:** India's total electronics market (domestic production and import) stood at c.INR 11trn in FY23 and is expected to grow at 22% CAGR to reach c.INR 29trn by FY28. Out of this, the domestic production mix is expected to increase from the present 77% to 96% to INR 28trn by FY28, thereby registering a 27% CAGR. Currently, c.30% of India's total local consumption is imported and India is a net importer of electronic products. However, with the government having initiated various measures to transform India into a global hub for electronics manufacturing, import dependency is expected to fall below 10% by FY28. Moreover, increasing the share of exports of total electronics production (from c.20% in FY23 to c.35% in FY28) will turn India into a net exporter.

Exhibit 24: Dependency on imports to reduce



Source: Frost & Sullivan, HSIE Research

Exhibit 25: Exports to grow at 44% CAGR over FY23-28E

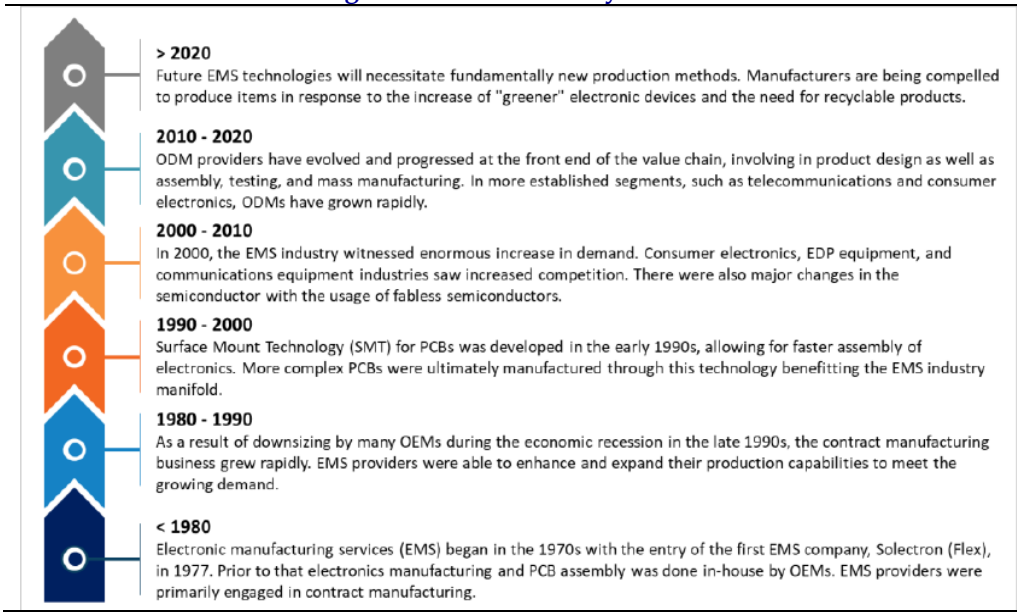


Source: Frost & Sullivan, HSIE Research

Opportunities galore for Indian EMS players

Globally, the electronics system design and manufacturing (ESDM) industry began more than five decades ago, wherein companies manufactured electronic products for original equipment manufacturers (OEMs). The ESDM companies primarily assembled components on printed circuit boards (PCBs) and box builds for OEMs while the designs were taken care of by the OEMs. However, the scenario is changing fast and OEMs are increasingly realising the capabilities and contribution of the ESDM companies. This has resulted in their involvement expanding beyond manufacturing to encompass product design and development, testing, and after-sales services such as repair, remanufacturing, marketing, and product lifecycle management. Some of the key design-related activities include product designing, chip designing, very large-scale integration (VLSI), board designing, and embedded systems.

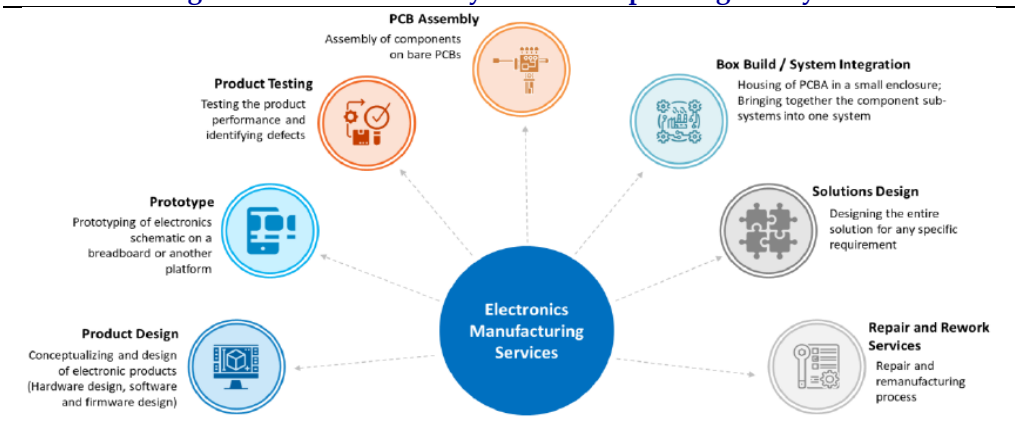
Exhibit 26: Evolution of the global ESDM industry



Source: Frost & Sullivan, HSIE Research

ESDM companies offer a range of services like (1) product design (hardware & software design); (2) prototyping of electronics schematic; (3) product testing; (4) PCB assembly; (5) box assembly (housing of PCBA in a small enclosure); (6) system integration; (7) solutions design; and (8) repairs and rework services. These companies can be contracted at different stages of the designing and manufacturing processes. While large companies can offer the entire range of services starting from design, sourcing of components, assembly, and testing (ODM), smaller companies offer primarily assembly and testing services.

Exhibit 27: Range of services offered by ESDM companies globally



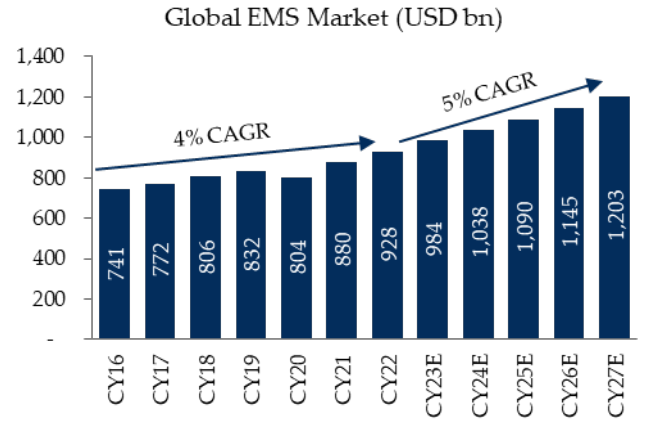
Source: Frost & Sullivan, HSIE Research

Indian electronics manufacturing services industry in nascent stages

The Indian ESDM industry is relatively young and has only grown in prominence over the last 6-7 years. The industry saw its first big-ticket investment between 2005-2007 with the entry of Jabil Circuits and Nokia which triggered a series of large/medium-scale investments in the Indian ESDM sector. While Nokia wound up its India operations between 2013-14, by 2015, more global ESDM giants started showing interest in India. Since then, the industry has embarked on an upward journey and now consists of more than 700 companies.

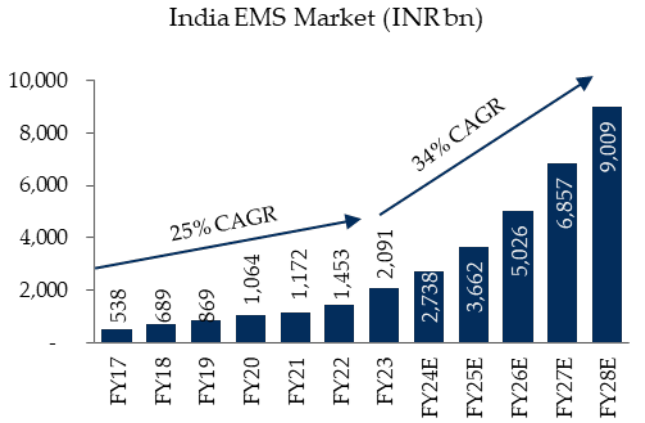
- **India is one of the fastest-growing electronics manufacturing services (EMS) markets globally:** Globally, the USD 928bn ESDM market (2022) is expected to grow at 5% CAGR to reach USD 1,203bn by 2027. On the other hand, India's INR 2trn ESDM market is expected to see an accelerated CAGR of 34% to reach INR 9trn by FY28, given a strong consumer economy with increasing demand for consumer and industrial electronics. Moreover, there is greater emphasis on domestic production of electronics from the government in its bid to become self-reliant. Favourable policy initiatives in recent years, along with the changing global manufacturing environment have made India a preferred destination for electronics manufacturing investments.

Exhibit 28: Global EMS market to grow at 5% CAGR



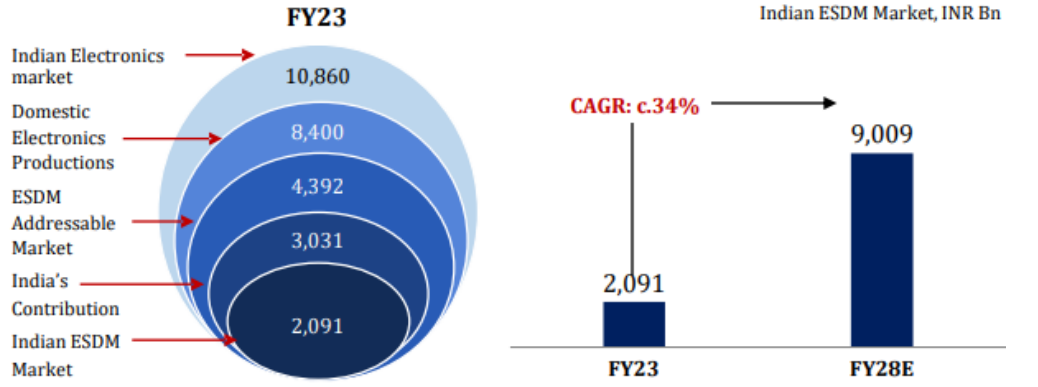
Source: Kaynes Placement Document, HSIE Research

Exhibit 29: India to be the fastest growing EMS market



Source: Kaynes Placement Document, HSIE Research

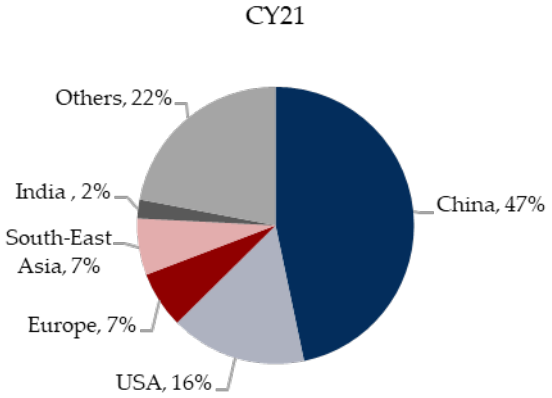
Exhibit 30: Overview of India's electronics and EMS industry



Source: Kaynes, HSIE Research

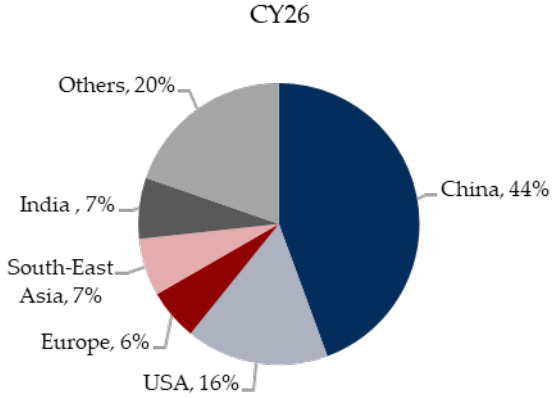
- **China dominates global EMS market; India's relevance to rise:** China dominates the global EMS market with a c.47% share in CY21, given (1) its operational cost benefits; (2) availability of a large number of highly-skilled personnel; (3) infrastructure and logistical advantages; and (4) its proximity to the largest end-user base across all end-user verticals. However, post-COVID-19, many global electronics manufacturers are contemplating on China + 1 strategy thereby looking for alternate manufacturing locations for export. While China will continue to hold a lion's share, this shift is creating tremendous investment potential for countries like Vietnam, India, and the Philippines. With the Indian government's focus on making India globally competitive in electronics manufacturing through various policy support, India's share in the global EMS market is expected to rise from 2% in CY21 to 7% by CY26.

Exhibit 31: China dominates the EMS market



Source: Frost & Sullivan, HSIE Research

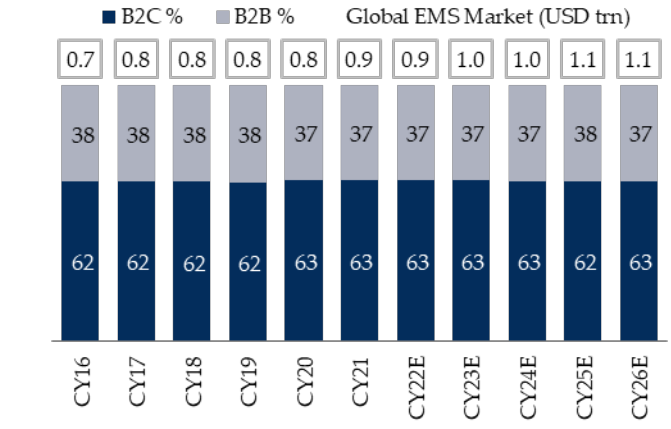
Exhibit 32: India's share to rise to 7% by CY26



Source: Frost & Sullivan, HSIE Research

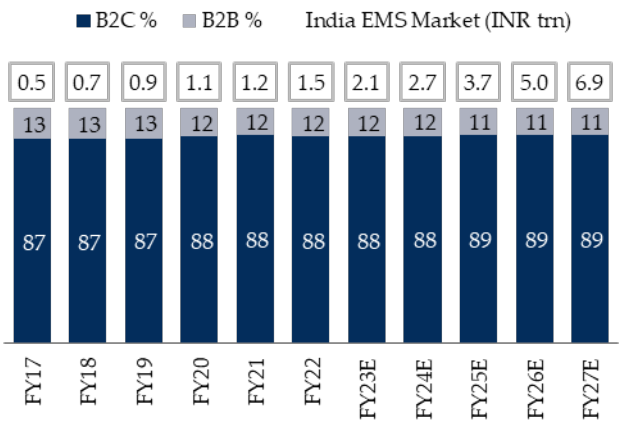
- **Indian market has a higher B2C mix:** The EMS market can be segmented into B2C and B2B segments. Mobile phones and consumer electronics and appliances (CEA) form a major chunk of the B2C segment (65%+). The B2B segment primarily caters to high-value products in some of the key segments such as telecom, industrial, automotive, medical, aerospace, and defence. Both globally and in India, the B2C segment has higher saliency and is expected to maintain its dominance. India particularly has a higher B2C mix, backed by strong local consumption, given low penetration levels, rising disposable income, and changing lifestyles.

Exhibit 33: Global share of B2B-B2C to remain stable



Source: Frost & Sullivan, HSIE Research

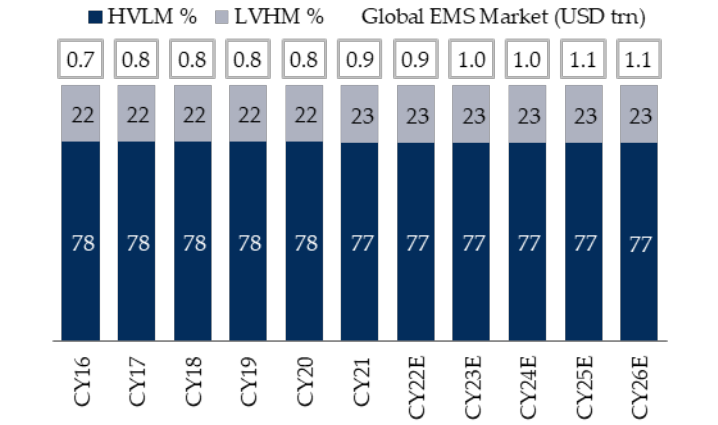
Exhibit 34: India's B2C mix higher than global average



Source: Frost & Sullivan, HSIE Research

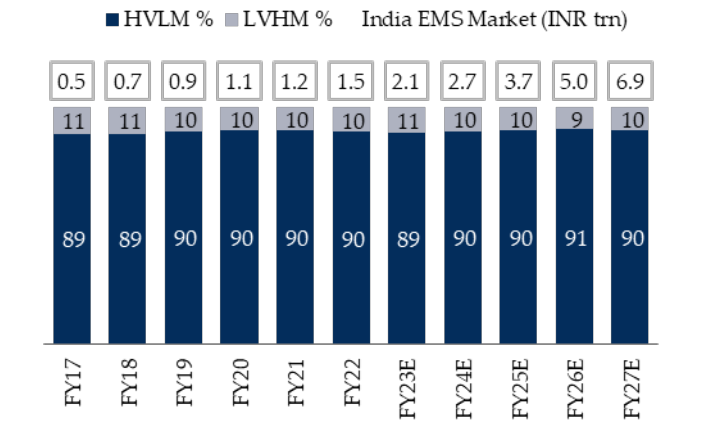
- **High volume, low mix (HVLM) vs low volume high mix (LVHM):** Within EMS, HVLM manufacturing is characterized by (1) a few types of assemblies; (2) large quantities; (3) higher asset turns and efficiency (low manufacturing lines changeover); (4) lower working capital (low SKUs, bulk sourcing); and (5) low margins. On the other hand, LVHM manufacturing can be characterized by (1) a larger number of SKUs; (2) smaller quantities; (3) higher complexity and criticality; (4) lower asset turns (higher manufacturing line changeover); (5) higher working capital (high component SKUs); and (6) higher margins. HVLM space caters to the needs of mobiles, computer peripherals, consumer devices and storage devices while LVHM space caters to the needs of industrial, medical, aerospace, and defence applications.

Exhibit 35: Global HVLM and LVHM mix



Source: Frost & Sullivan, HSIE Research

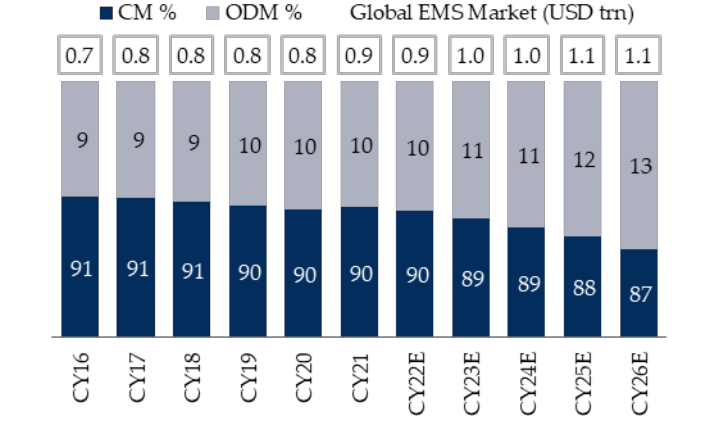
Exhibit 36: Akin to B2C segment, India's HVLM mix is higher



Source: Frost & Sullivan, HSIE Research

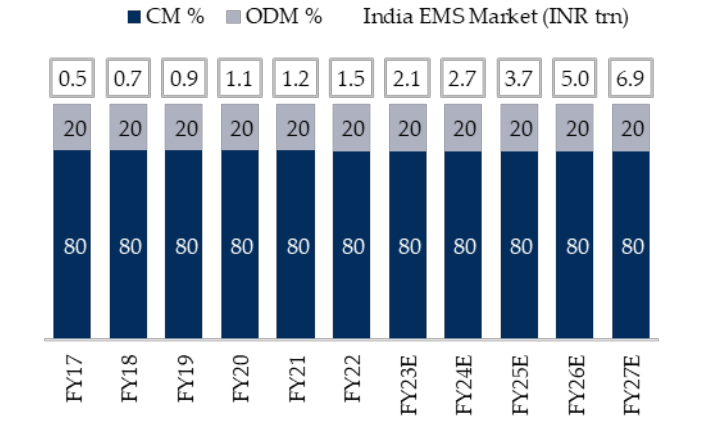
- **EMS players looking to increase ODM mix**: EMS companies are steadily shifting towards ODM models, giving full turnkey solutions for items from design and product development to reverse logistics resulting in higher margins and increased visibility. OEMs are increasingly looking to choose the ODM model, given constantly increasing manufacturing costs. Moreover, EMS players are also collaborating with OEMs for joint development of design and product localization. Within ODM, innovation is critical to success. In the medium term, although the ODM mix is set to increase as EMS players continue to improve their design skills, we expect contract manufacturing to continue to form a large part of the industry.

Exhibit 37: Global ODM mix set to increase steadily



Source: Frost & Sullivan, HSIE Research

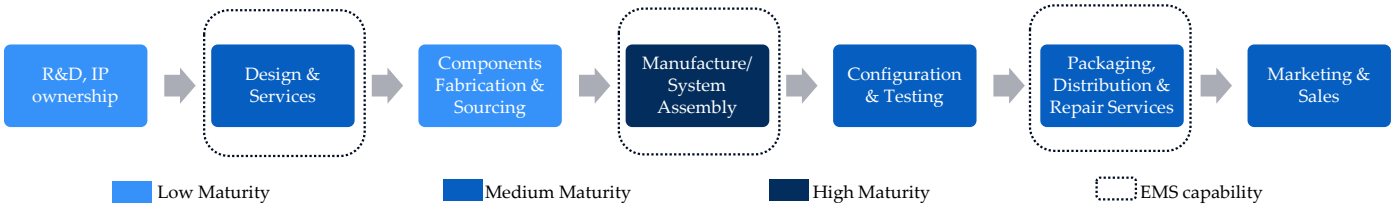
Exhibit 38: India ODM mix to remain stable



Source: Frost & Sullivan, HSIE Research

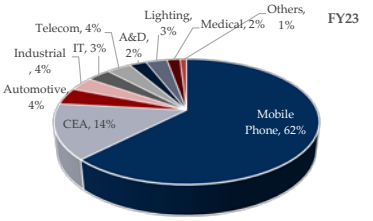
- **India is looking to develop across the EMS value chain:** Electronics manufacturers in India lack mature R&D set-ups due to large capex investments and long gestation periods. Globally, R&D and IP ownership is being dominated by Europe and the US with most MNCs holding these IPs in their headquarters location. Having said that, India has a competitive edge in design services, as most such work is usually outsourced to cost-effective destinations (China, South Korea, and Thailand). Moreover, in terms of manufacturing/system assembly, India has an established set-up. The country also has high maturity levels in packaging, distribution, repair, sales, and marketing functions to meet geographical standards and cater to local requirements. After-sale services which include repair and maintenance are important for the Indian buyer as the use-and-throw perception is still not acceptable in the Indian electronics ecosystem. Many EMS providers are slowly evolving to offer complete design services apart from contract manufacturing. EMS players obtain higher margins through this model.

Exhibit 39: Value chain of EMS industry in India



Source: Frost & Sullivan, HSIE Research

- **Mobile and CEA dominate EMS end-user segments:** India's EMS industry is dominated by Mobile Phones, Consumer Electronics, Automotive, and Industrial Electronics segments, which cumulatively account for nearly 85% share of the total market. While these segments are expected to grow at 25%+ CAGR, IT (and IT-related products), A&D and Medical are expected to grow faster over the next five years.



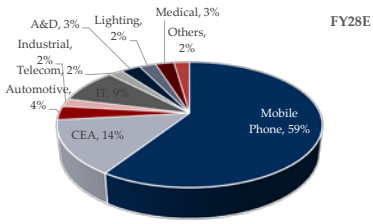


Exhibit 40: India EMS market by end-user segments

Products	FY23		FY28E		CAGR %
	INR (bn)	Mix %	INR (bn)	Mix %	FY23-28E
Mobile Phone	1,305	62%	5,333	59%	33%
CEA	299	14%	1,270	14%	34%
Automotive	90	4%	315	4%	29%
Industrial	75	4%	189	2%	20%
IT	71	3%	802	9%	62%
Telecom	75	4%	180	2%	19%
A&D	51	2%	256	3%	38%
Lighting	65	3%	216	2%	27%
Medical	40	2%	243	3%	44%
Others	20	1%	204	2%	59%
Total	**2,091**	**100%**	**9,009**	**100%**	**34%**

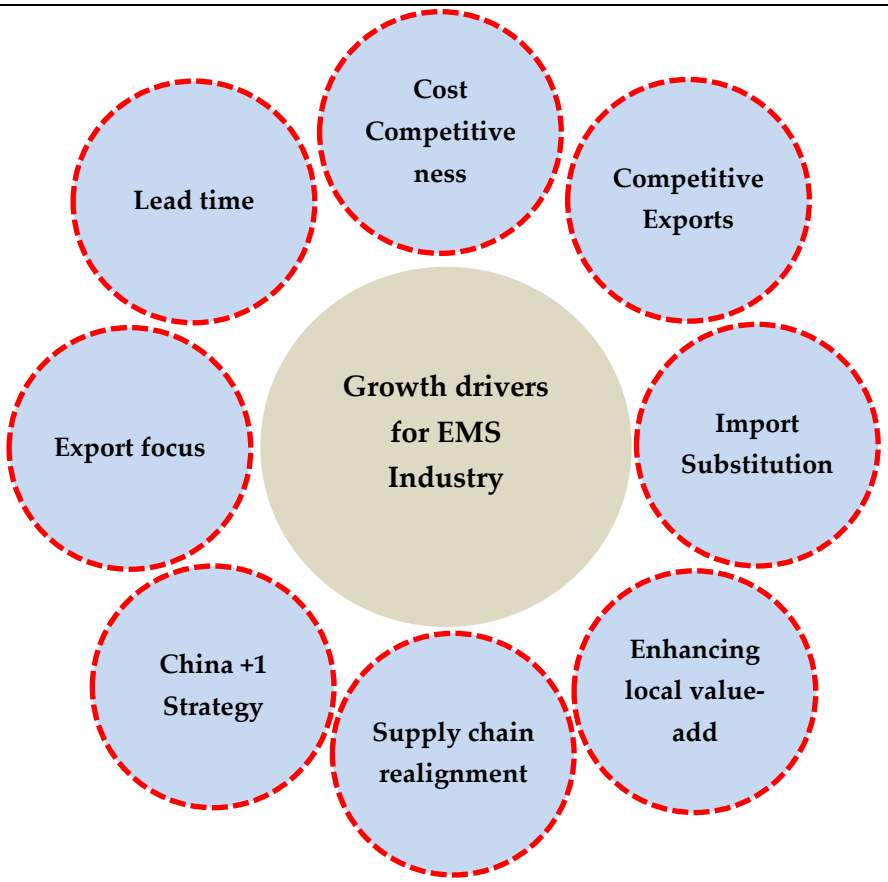
Source: Kaynes Placement Document, HSIE Research

Industry	Industry CAGR (FY23-28E)	Growth Drivers
Mobile Phone	33%	▪ India is the world's second-largest manufacturing hub and market (11% of worldwide mobile phone production) ▪ PLI with an incentive outlay of c.INR 410bn.
CEA	34%	▪ Strong local market, low penetration levels, rising disposable income and changing lifestyles. ▪ PLI with an incentive outlay of c.INR 62bn.
Automotive	29%	▪ Themes such as connected, autonomous, shared and electric are driving digitalization. ▪ Significantly higher usage of electronics and controls in EV. ▪ ADAS, EV and safety are fast-emerging segments. ▪ India imported INR 160bn worth automotive electronics in FY20. ECUs, PCBs and electronic components make up 65% of auto electronics imports. ▪ PLI with an incentive outlay of c.INR 259bn.
Industrial	20%	▪ Large manufacturing companies investing heavily in technological upgradation by adopting digitization and industry 4.0 concepts. ▪ Smart metering in electricity/water/gas ▪ Rapid adoption of modern technology, backed by cost saving features. ▪ Home grown companies being preferred over Chinese
IT	62%	▪ The OEMs' requirements in this industry are PCBA, testing and packaging and box build capabilities, as well as supply chain management. ▪ Supply remains relatively lower than current demand in the country. ▪ PLI with an incentive outlay of c.INR 169bn.
Telecom	19%	▪ India is one of the largest exporters of telecom equipment. ▪ Increased outsourcing to companies with design, logistics and after sales support. ▪ Data centre storage solutions, BTS, GPON, IP PBX, Network infra (4G; 5G) related solutions. ▪ PLI with an incentive outlay of c.INR 122bn.
Aerospace & Defence	38%	▪ A&D is one of the most complex and specialized industries in EMS. ▪ India ranked 19th among the world's defence exporters in attracting FDI. ▪ Relaxation in FDI in A&D sector aids in collaborating with global players to have a competitive edge in the market. ▪ The government is taking numerous initiatives to encourage local manufacturing and reduce its external dependence on defence procurement. ▪ Advancements in sophisticated equipment such as avionic systems, radar systems, flight management system (FMS), cockpit control units, etc. will further drive the A&D Electronics market in India
Medical	44%	▪ Increased demand for healthcare & medical devices resulting from rise in medical tourism. ▪ High speed analysis driving growth of medical equipment's market. ▪ Development of 'medical device parks' across – robust ecosystem for manufacturing in India. ▪ Major electronics in medical business includes MRI, X-Ray, Ultrasounds, and Patient Aids (hearing aids, pacemakers, etc.) ▪ PLI with an incentive outlay of c.INR 34bn.
Railways	45%	▪ Indian Railways is developing & creating technology in areas like signaling & telecommunication to be tailored with 'KAVACH', the locally developed Train Collision Avoidance System. ▪ The key signaling and telecom Upgrades on Indian Railways by 2026 include (a) Train collision avoidance system for a target of 37,000 km (b) Automatic block signaling for a total route of 15,500 km (c) Electronic interlocking across 1551 stations (d) 4G/LTE Based Wireless Communications for entire railway network (e) centralized traffic control for 11,000 km.

Growth drivers for the Indian EMS industry

The EMS industry is growing at a rapid pace and there are several drivers which are structural in nature and will keep the high growth momentum even in the long term. India's ecosystem is also evolving and many drivers are still in the initial stages of evolution and as the operation levels grow, many more growth drivers will be added. There are still high-end and value-added products/services, which are not happening in India and would start driving once the core foundations are set up.

Exhibit 41: Growth drivers for the EMS industry



Source: HSIE Research

- **Domestic cost competitiveness in manufacturing:** India has one of the lowest labour costs and overheads giving it a considerable advantage over China and most of the other Southeast Asian countries. As per the industry study, India's wages are >40% cheaper than China's. Labour cost is one of the key costs in manufacturing; thus, it provides a big headroom for cost competitiveness in the global market. Thereby, investments in India are growing and driving demand for ESDM.
- **Competitive exports:** Cost competitiveness in domestic manufacturing in India contributes to the growth of exports in electronics from the country. This is supported by favourable policies such as the ASEAN-India Free Trade Agreement coupled with the depreciating value of the Indian Rupee, which makes Indian exports competitive.
- **Import substitution:** India is highly dependent on importing electronic products, c.30% of India's electronic product demand is being contributed by imports. Such a high dependency mix for fast-growing products is also alarming for India. Thereby, import substation is critical for India, leading to high growth for ESDM.

- **Enhancing local value-add:** Sub-assembly modules and finished goods assemblies are some of the developments taking place in India currently. Even though component manufacturing is currently being dominated by China, Japan, and South Korea, India has showcased strong potential in this part and is on the path to developing a strong component manufacturing base.

- **Supply chain realignment:** Local availability of components and chip fabrication are primary activities that determine the strength of the electronics manufacturing ecosystem. India has a very limited component supplier base; most of the high-value and critical components are imported. Components that are predominantly imported include ICs, PCBs, and other active components. As supply-chain resilience and localisation are becoming more significant, India has had to take the necessary steps to improve the domestic value chain capability for long-term benefits. The introduction of the PLI scheme to promote component sourcing and the relaxing of FDI policies which would facilitate companies to set up bases in India are allowing them to drive product development as well as research and development.

- **China + 1 strategy:** China's rising cost structure along with the global need for diversification to avoid any potential risk of product supply in adverse situations like COVID etc. have created a need for China +1. China accounts for 13% of total global exports. However, because of the China+1 strategy and the US-China trade dispute, China is gradually losing its global partners. According to a recent global survey, 20-30% of industrial firms will leave China in the next few years. Around USD 4 trillion in manufacturing took place in China in 2020, and it is the world's largest exporter and the US is its top importer, posing a huge challenge for the World Trade Organization to regulate trade under its current rules and regulations.

- **Export focus on USD 5 trillion GDP:** India is among the top growing economies and to sustain this outperformance, the government is also emphasizing manufacturing. India has so far struggled to tap the global demand for electronics products due to a variety of reasons i.e., low investment, weak supply chain, more focus on assembly due to lack of manufacturing capabilities, etc. However, incrementally, the manufacturing sector is seeing more impetus. With a growing economy and large population, India can tap the global demand for electronic products.

- **Component manufacturing/ lead time:** Higher local sourcing of components will reduce the lead time of manufacturing high-end products. Several critical components are being imported as of now which is increasing the overall manufacturing process time and leading to higher requirements for import planning.

Why India is being viewed as an attractive manufacturing destination

India has long been seen as a destination with plenty of low-cost skilled and semi-skilled labour (India's median age is 28.7 years vs 37.4/31.9 years of China/Vietnam). However, it was grappled with poor infrastructure and a challenging business environment. The scenario has changed a lot in the last few years. Over the past decade, India has made considerable progress in ease of doing business with its overall ranking improving to 63 in 2020 (142 in 2015). Even on the logistics performance index, India's rank has improved to 38 in 2023 (54 in 2014). India has been able to take advantage of its demographic dividend while also introducing much-needed flexibility in its manufacturing policies. The conscious efforts to attract global investors have resulted in a growth in FDI as well as investor confidence. The following factors will contribute towards India becoming the next electronics manufacturing hub of the world:

- A stable political government assuring global investors of consistency in policies.
- The rising cost of labour in China while India's labour cost is still lower.
- Creation of National Manufacturing Zones (NMZ), Electronics Manufacturing Clusters (EMC), and close coordination between the Centre and states for investment promotion.
- High domestic demand for products and services; local needs.
- Investment by ESDM companies.
- Duties and tariffs to discourage imports and encourage domestic value addition.
- Digitalisation that accentuates demand for select products.

Exhibit 42: Economic parameters comparison

Parameters (2022)	India	China	Vietnam
Population (mn)	1,420	1,410	98
Annual GDP (USD trn)	3.4	18.0	0.4
GDP growth % (CY26)	6.3	4.1	6.8
Inflation % 2022	6.7	2.0	3.2
Manufacturing Value Added (% of GDP)	13.0	28.0	25.0
Export (USD trn)	0.8	3.7	0.4
Import (USD trn)	0.9	3.1	0.4
Manufacturing Risk Index (Rank)	2	1	11
FDI Investments (USD bn)	50	180	18

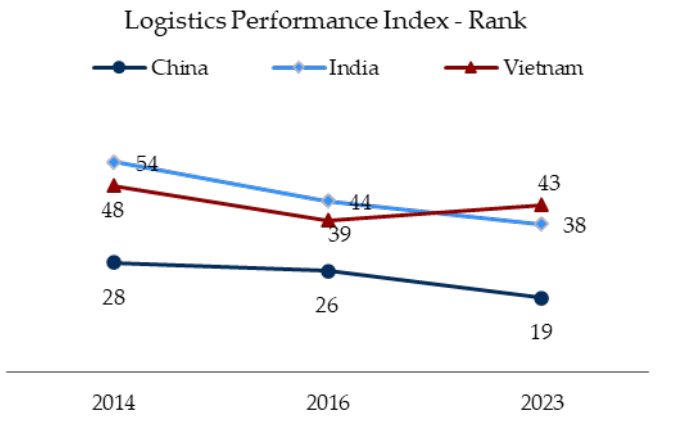
Source: World Bank, HSIE Research

Exhibit 43: Labour market comparison

Parameters (2021)	India	China	Vietnam
Total Labour Force (mn)	507	780	55
Labour force participation rate (%)	52.1	75.9	83.1
Employment in industry (% of total employment)	25.0	28.0	33.0
Wage and salaried workers (% of total employment)	23.9	55.5	46.3
Avg Daily Wages - Nominal (USD)	5.3	36.0	9.5
Avg Daily Wages - Manufacturing (USD)	6.0	6.5	3.0

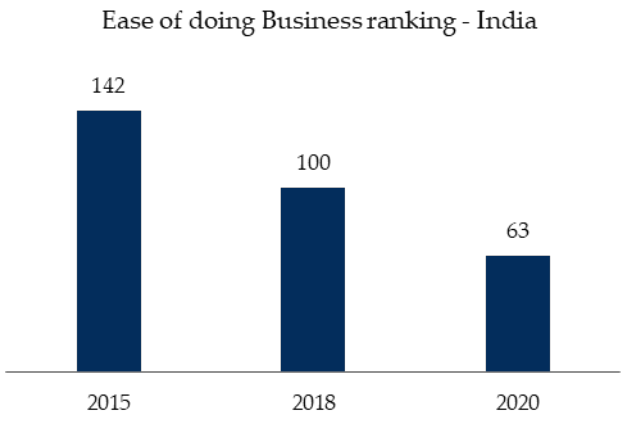
Source: World Bank, Frost & Sullivan, HSIE Research

Exhibit 44: India's LPI ranking has seen improvement



Source: World Bank, HSIE Research

Exhibit 45: Significant progress in EODB ranking



Source: World Bank, Frost & Sullivan, HSIE Research

Favourable government policies

With the recognition of the electronics sector as one of the key growth drivers for the Indian economy, the sector has received significant attention from the government in the last 6-7 years through various policies, schemes and incentives. The National Policy on Electronics (NPE) emphasised local value addition and created an enabling environment. The unwavering focus of the government since 2014 on manufacturing through Make-in-India policies has attracted the interest of both global and domestic companies. Highlights of a few of these policies are below:

- **Make in India:** This program was launched in 2014 to make India a global manufacturing hub, by facilitating both domestic as well as international companies to set up manufacturing bases in India. As per the scheme, the government released special funds to boost the local manufacturing of mobile phones and electronic components.
- **Phased Manufacturing Program:** To promote indigenous manufacturing of electronic products, the government introduced this program. Indian electronics manufacturers are heavily dependent on imports for raw materials sourcing. The phased manufacturing programme involves a mix of local assembly import levies and incentives. Initially introduced for mobile phones, the program has gradually extended to other electronic products. According to the PMP, the government offers various incentives, including differential duty exemptions such as countervailing duty (CVD) on imports and excise duty without input tax credit.
- **Production Linked Incentive (PLI) Scheme:** First announced in 2019 (mobile phones and components), today PLI schemes have been announced across 14 key sectors with an outlay of over INR 1.95lakh. Incentives are linked to incremental investment and sales of manufactured goods. The purpose of the PLI Schemes is to attract investments in key sectors and cutting-edge technology; ensure efficiency, bring economies of size and scale in the manufacturing sector and make Indian companies and manufacturers globally competitive.

Exhibit 46: List of PLI schemes across key sectors

Sectors	Approved financial outlay (INR bn)
Mobile Manufacturing & Specified	386
Automobiles & Auto Components	259
High Efficiency Solar PV Modules	240
Advance chemistry cell ACC battery	181
IT Hardware	170
Pharmaceutical drugs	150
Telecom & Networking Products	122
Food Products	109
Textile Products	107
Critical key starting materials/ drugs	69
Speciality Steel	63
White Goods (Acs & LED)	62
Manufacturing of medical devices	34
Drone and Drone components	1
Total	**1955**

Source: HSIE Research

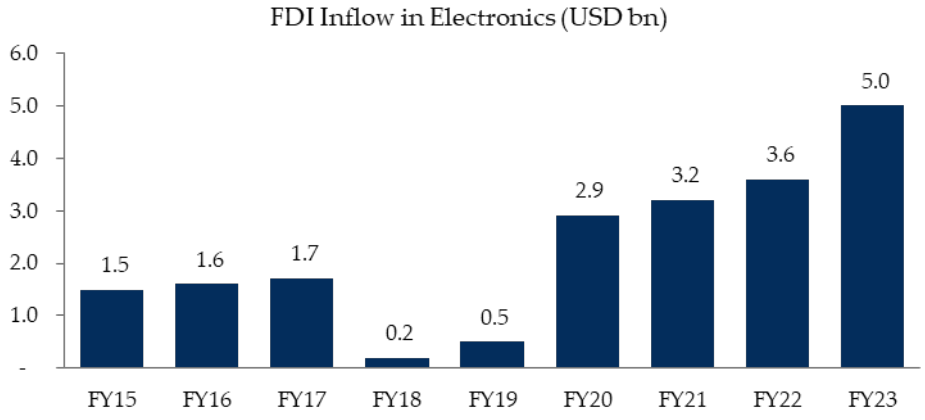
- **Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECS):** Launched in 2020, the scheme aims to help offset the disability for domestic manufacturing of electronic components and semiconductors to strengthen the electronics manufacturing ecosystem in the country. With a total outlay of INR 32.9bn (over 8 years), the scheme will provide the financial incentive of 25% on capital expenditure for the identified list of electronic goods that comprise the downstream value chain of electronic products,

i.e., electronic components, semiconductor/display fabrication units, ATMP units, specialized sub-assemblies and capital goods for manufacture of aforesaid goods, all of which involve high value-added manufacturing.

- **Merchandise Exports from India Scheme (MEIS):** The government of India offers benefits of up to 4% under this scheme, depending on the country of exports and the products. The scheme's rewards are calculated as a percentage of the realised free-on-board value, and MEIS duty credit can be transferred to the company for working capital needs or used to pay various duties, such as basic customs duty.
- **Modified Electronics Manufacturing Clusters Scheme (EMC 2.0):** Notified in 2020, the EMC 2.0 scheme aims to strengthen the infrastructure base for the electronics industry in India and deepen the electronics value chain. To provide support for the creation of world-class infrastructure along with common facilities and amenities, including 'Ready Built Factory (RBF)' sheds/'Plug and Play' facilities for attracting major global electronics manufacturers along with their supply chain to set up units in the country. Total outlay of INR 37.6bn.
- **Modified program for Semiconductors and Display Fab Ecosystem:** With a total outlay of INR 760bn, the aim is to develop the semiconductors and display manufacturing ecosystem within the country. The program aims to provide attractive incentive support to companies that are engaged in Silicon Semiconductor Fabs, Display Fabs, Compound Semiconductors/Silicon Photonics/Sensors (including MEMS) Fabs/Discrete Semiconductor Fabs, Semiconductor Packaging (ATMP/OSAT) and Semiconductor Design.

Given the large population base, rising aspiration levels and lower penetration of electronic products across most categories there exists a strong captive demand for most electronic goods. Moreover, the government has been proactively building a base for electronics manufacturing in India and has launched numerous incentive schemes, which have allowed manufacturing growth, reduced dependence on imports, and promoted exports. As a result, and particularly post-COVID-19 (with China +1 strategy), the electronics segment has been attracting larger FDI inflows, primarily for the establishment of manufacturing and development centres.

Exhibit 47: FDI inflow in electronics has picked up post covid-19



Source: HSIE Research

How have companies fared globally?

- Globally, companies have witnessed an extended period of high growth rates with healthy margins and return profiles. Consequently, as industry began maturing and as the base caught up, there was a deceleration in growth and margins. However, since 2015, margins and return ratios have remained stable.
- We note that Hon Hai reported revenue/EBITDA/PAT CAGRs of 23/16/15% over CY2000-2022 (31/23/21% over CY2000-2015) with cumulative OCF/NPAT at 120%, which displays a strong trait of EMS players' ability to maintain NWC prudently despite rapid growth.
- India's EMS industry has come into prominence only in the past 6-7 years. It is still in its infancy and possesses multi-year growth potential. Based on reverse DCF, at CMP, the implied revenue CAGR across our coverage universe is 15-30% over the next decade, which, in our view, looks achievable, given India's EMS industry is at an inflection point. Hence, we do not expect any significant de-rating for the stocks, even though the stocks are currently trading at rich valuations

Exhibit 48: Growth metrics of global players

Company	Starting Period	Revenue CAGR %		EBITDA CAGR %		PAT CAGR %	
		till 2015	2015-2023	till 2015	2015-2023	till 2015	2015-2023
Hon Hai Precision	1997	34%	4%	25%	1%	23%	0%
Pegatron	2010	18%	0%	23%	-7%	31%	-5%
Compal	1997	21%	1%	12%	2%	5%	-2%
Quanta Computer	2005	8%	1%	3%	10%	6%	11%
Wistron	2005	14%	4%	8%	18%	-10%	31%
Inventec	1997	13%	3%	6%	1%	2%	1%
Byd Electronic	2005	47%	20%	49%	12%	45%	11%
Universal Scientific	2010	15%	14%	7%	20%	4%	22%
Sanmina	1997	14%	4%	7%	9%	15%	-2%
Jabil	1997	18%	9%	14%	12%	10%	14%
Flex	1997	23%	7%	20%	5%	25%	4%

Source: Bloomberg; HSIE Research

Exhibit 49: Margins and return ratios have stabilized since 2015

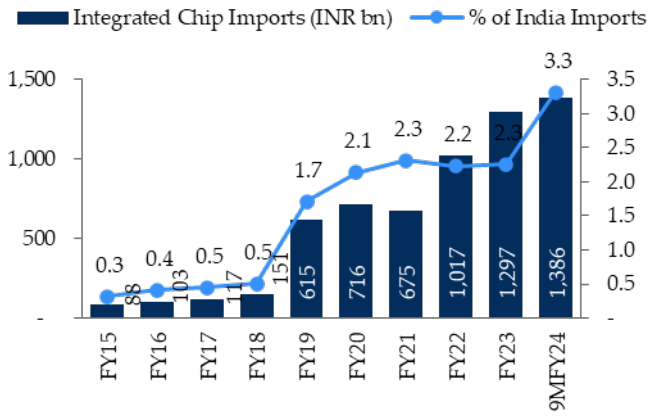
Company	Starting Period	EBITDAM %						RoE %					
		1997	2000	2005	2010	2015	2016-2023 Avg	1997	2000	2005	2010	2015	2016-2023 Avg
Hon Hai Precision	1997	19%	13%	7%	4%	5%	4%	38%	26%	27%	17%	15%	11%
Pegatron	2010	na	na	na	4%	4%	3%	na	na	na	7%	17%	11%
Compal	1997	8%	8%	5%	3%	2%	2%	26%	20%	14%	22%	8%	8%
Quanta Computer	2005	na	na	4%	2%	3%	3%	na	na	16%	17%	13%	16%
Wistron	2005	na	na	3%	3%	2%	3%	na	na	16%	22%	2%	10%
Inventec	1997	9%	3%	2%	2%	3%	2%	45%	20%	0%	9%	10%	11%
Byd Electronic	2005	na	na	15%	11%	7%	9%	na	na	23%	15%	9%	14%
Universal Scientific	2010	na	na	na	7%	5%	6%	na	na	na	20%	11%	15%
Sanmina	1997	16%	14%	3%	5%	5%	5%	22%	17%	-36%	21%	27%	9%
Jabil	1997	11%	9%	6%	5%	6%	6%	34%	16%	10%	11%	12%	18%
Flex	1997	7%	7%	5%	4%	5%	5%	13%	11%	7%	1%	27%	14%

Source: Bloomberg, HSIE Research

India Semiconductor Mission

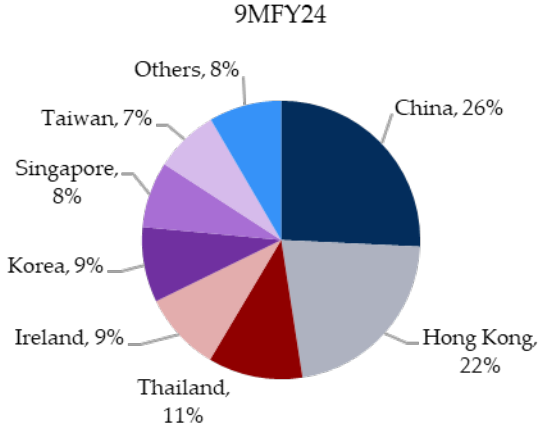
Semiconductors are all around us and without them, the technology that we count on every day would not be possible. They control the computers we use to conduct business, the mobile devices we use to communicate, the cars and planes that get us from place to place, the machines that diagnose and treat illnesses, the military systems that protect us, and the electronic gadgets we use in our day to day lives. With India increasingly looking to develop as an electronics manufacturing hub, over the past 6-7 years, India has seen an increase in imports of integrated circuits (ICs) to INR 1.4trn (50%+ CAGR), of which China and Hong Kong cumulatively contributed c.50%.

Exhibit 50: IC imports on the rise



Source: World Bank, HSIE Research

Exhibit 51: c.50% imports from China/Hong Kong



Source: World Bank, Frost & Sullivan, HSIE Research

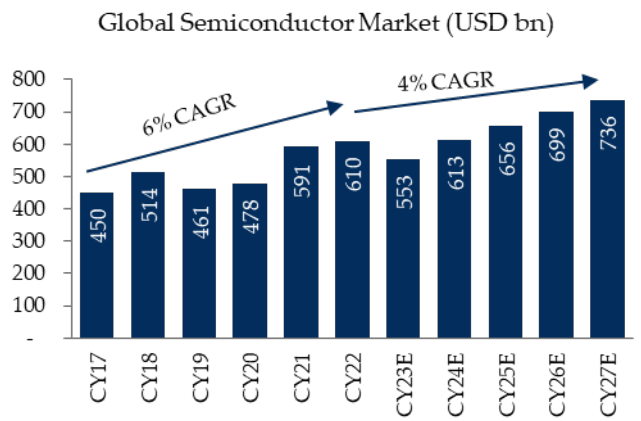
Given the rapidly increasing need for semiconductors, GoI remains focused on building the overall semiconductor ecosystem, which in turn will help catalyse India's rapidly expanding electronics manufacturing and innovation ecosystem. In its bid to do so, GoI has approved the Semicon India programme with a total outlay of INR 760bn for the development of the semiconductor and display manufacturing ecosystem in the country. The development of a domestic component ecosystem will help (1) improve time to market/lead time; (2) reduce component and logistics costs; (3) improve foreign exchange savings; and (4) make electronic products more affordable. Four schemes have been introduced, which are:

- **Semiconductor fabs:** Fiscal support of 50% of the project cost.
- **Display fabs:** Fiscal support of 50% of the project cost.
- **Compound Semiconductors/Silicon Photonics/sensor fabs/ ATMP/OSAT:** Fiscal support of 50% of the capital expenditure.
- **Design-linked incentive:** 50% of eligible expenditure subject to a ceiling of INR 150mn per application. Deployment Linked Incentive of 4-6% of net sales turnover over five years subject to a ceiling of INR 300mn per application.

Exhibit 52: Value chain of electronics

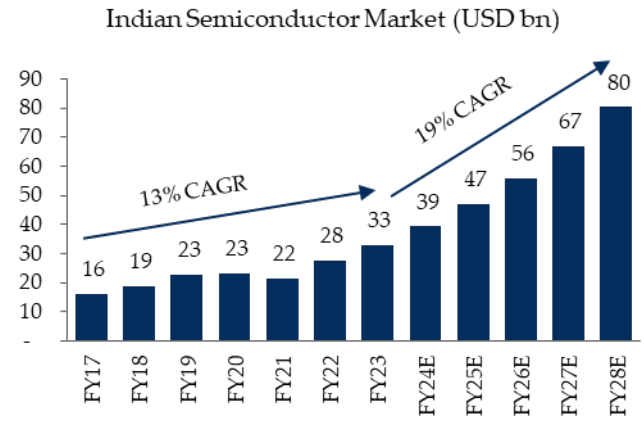
Source: Company, HSIE Research

Exhibit 53: Global market dominated by China



Source: Kaynes Placement Document, HSIE Research

Exhibit 54: Indian semicon market to grow at 19% CAGR

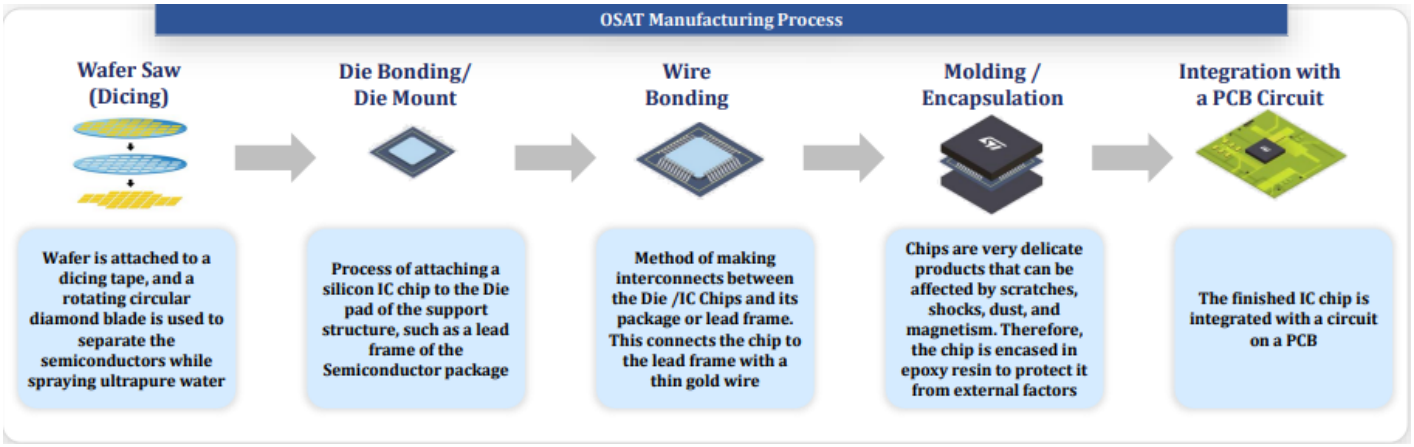


Source: Kaynes Placement Document, HSIE Research

Outsourced Semiconductor Assembly and Test (OSAT)

- Outsourcing plays a pivotal role in semiconductor manufacturing. OSAT companies specialise in third-party services for the packaging and testing of integrated circuits (ICs). They are crucial as strategic collaborators for integrated device manufacturers (IDMs), foundries, and fabless chip manufacturers.

Exhibit 55: OSAT Manufacturing process



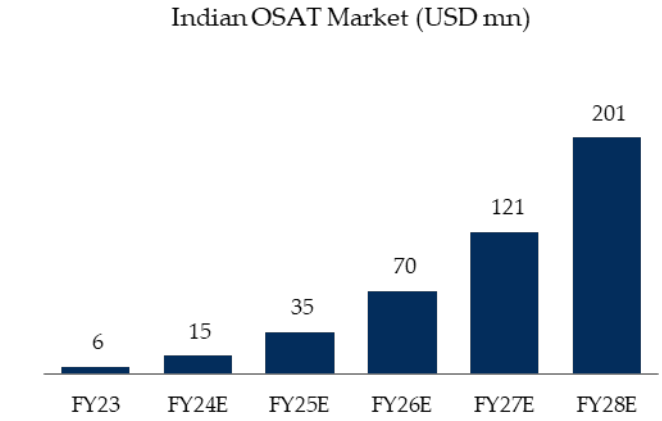
Source: Company, HSIE Research

- Globally, the OSAT market is currently at USD 53bn and is expected to grow at 3% CAGR over the next five years to reach USD 60bn. The increasing complexity of semiconductor packaging and testing processes, driven by manufacturing advancements and miniaturisation, remains a difficult proposition for the core semiconductor manufacturing companies, which in turn will act as a catalyst for the global OSAT market.
- On the other hand, the Indian OSAT market is currently in its nascent stage but holds immense potential for growth in the coming years, especially if major global OSAT players set up production facilities in India. The government's continued commitment to fostering the semiconductor ecosystem, coupled with inherent strengths in terms of labour, cost competitiveness, and proximity to key markets, can help the Indian OSAT market to scale from its present USD 6mn size to USD 201mn.

Exhibit 56: Global OSAT market

Source: Kaynes Placement Document, HSIE Research

Exhibit 57: Indian OSAT market at nascent stage



Source: Kaynes Placement Document, HSIE Research

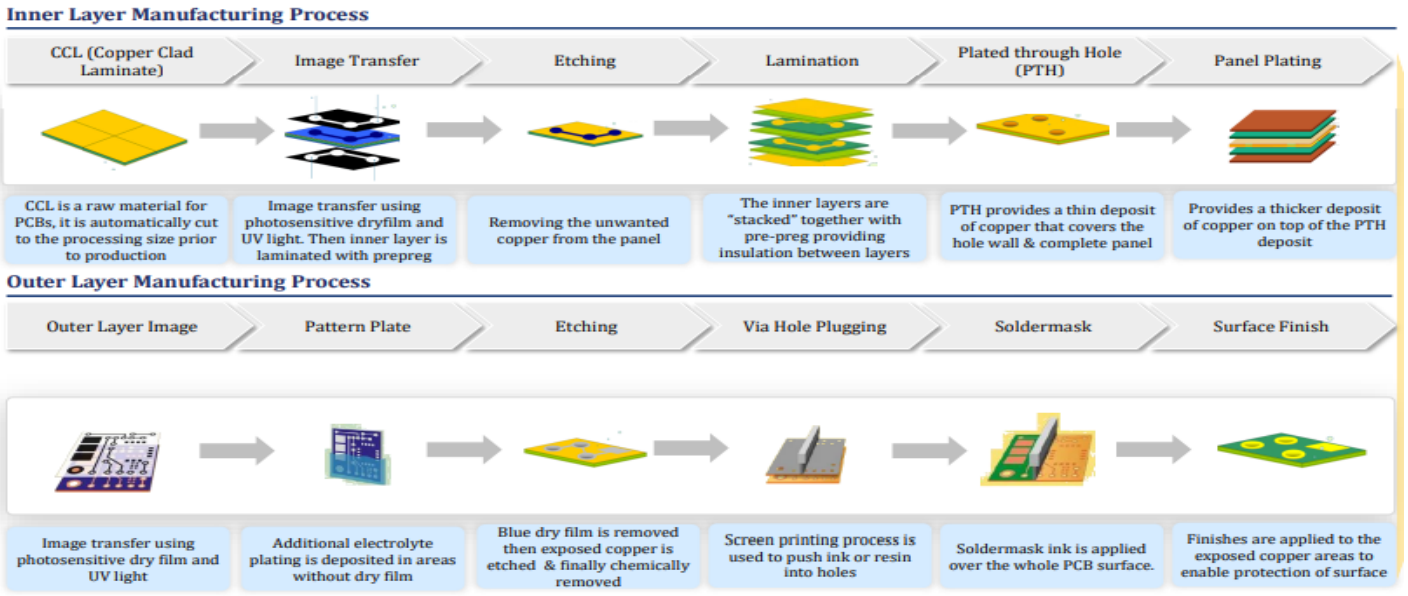
Bare Printed Circuit Boards (PCBs)

Bare PCB

PCB Assembly

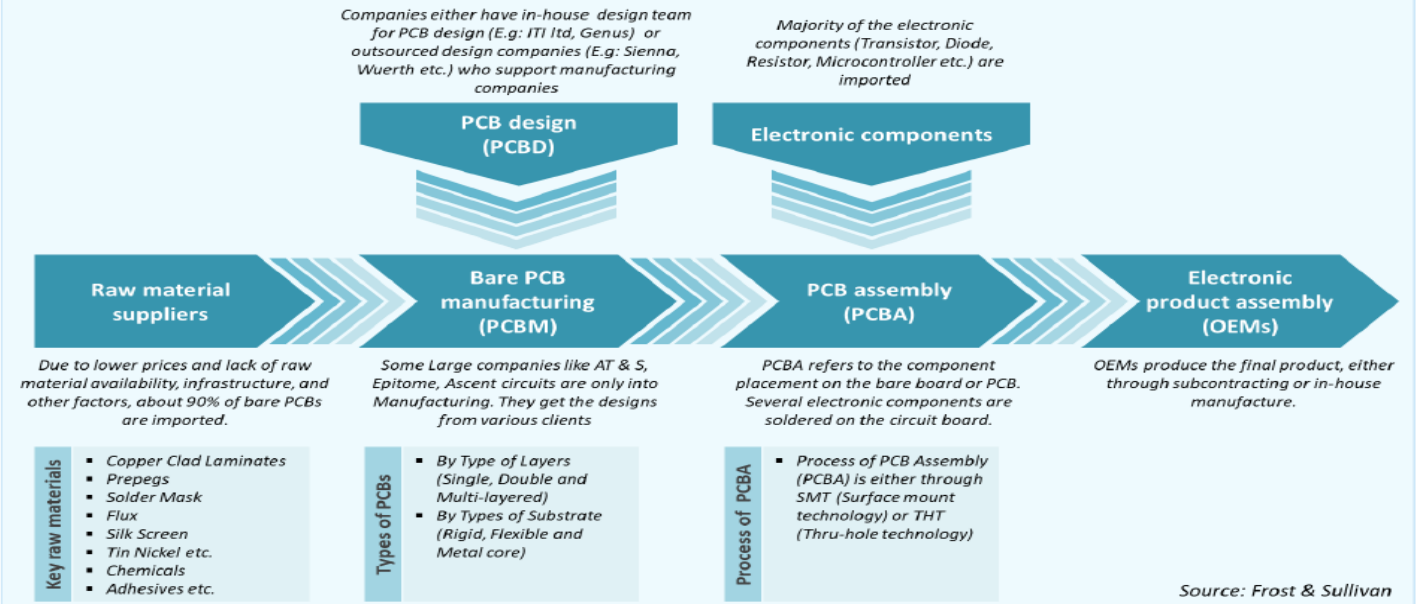
- PCBs are the backbone of modern electronics, providing the physical interconnection for electronic components to communicate and function. On the other hand, PCBA is a Printed Circuit Board (PCB) with all components mounted and soldered and has the functionality it was designed for. All electronic devices derive their functionality and intelligence from the PCBA. These versatile and essential components are found in a vast array of devices, from smartphones and laptops to automobiles, medical equipment, and aerospace systems.
- The widespread adoption of PCBs is driven by their ability to support complex circuitry, miniaturisation, and high-speed data transmission. It is hard to imagine an electronic product without a PCB and as it continues to evolve into new industries and applications, the size of this sector as well as its technology is advancing rapidly.

Exhibit 58: Bare PCB manufacturing process



Source: Company, HSIE Research

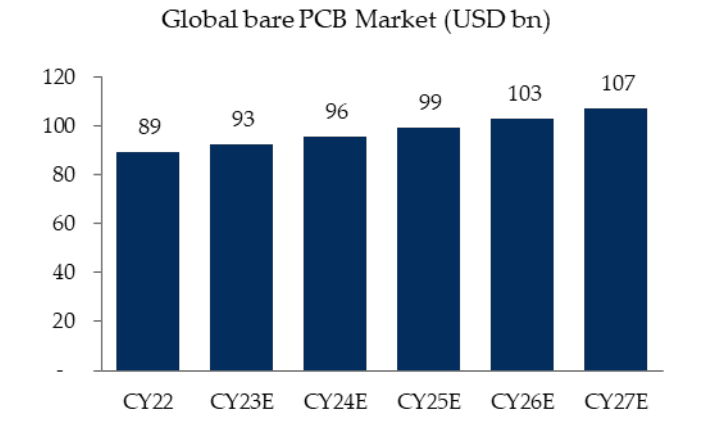
Exhibit 59: Value chain of PCB industry



Source: Frost & Sullivan, HSIE Research

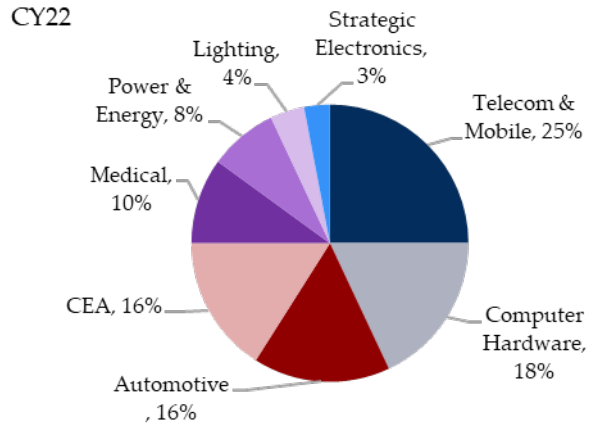
- PCBs may be single, double or multi-layered. Single-layered PCB is the first generation of PCB used in simple electronic devices. As the products became complex, so did the PCBs. Nowadays, multilayer PCBs are the rule rather than the exception. Smartphone PCBs can have up to sixteen layers while military electronic equipment may even have a hundred-layer PCB. Components may be mounted on one side of the PCB, referred to as single-sided PCBA, or both sides of the PCB, referred to as a double-sided PCBA. The miniaturisation of electronic devices and the adoption of advanced technologies are driving growth for the HDI PCB market.
- Globally, the PCB market stood at USD 89bn and is expected to grow at 4% CAGR to reach INR 107bn by CY27. In terms of usage, the mobile and telecom segment dominates with around 25% share, followed by computer hardware (18%), automotive (16%), consumer electronics (16%), and medical (10%).

Exhibit 60: Global bare PCB market to grow at 4% CAGR



Source: Kaynes Placement Document, HSIE Research

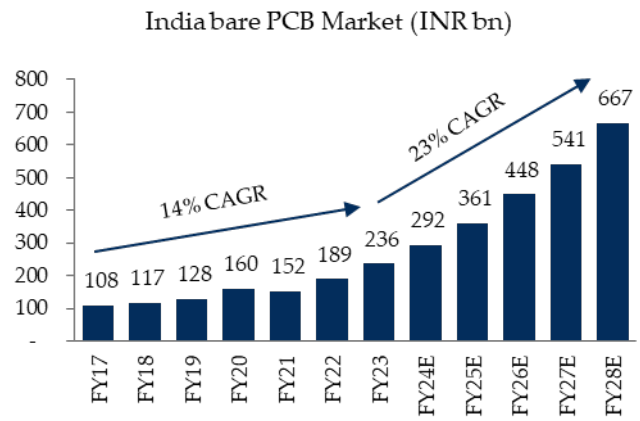
Exhibit 61: Global bare PCB market mix by industry



Source: Kaynes Placement Document, HSIE Research

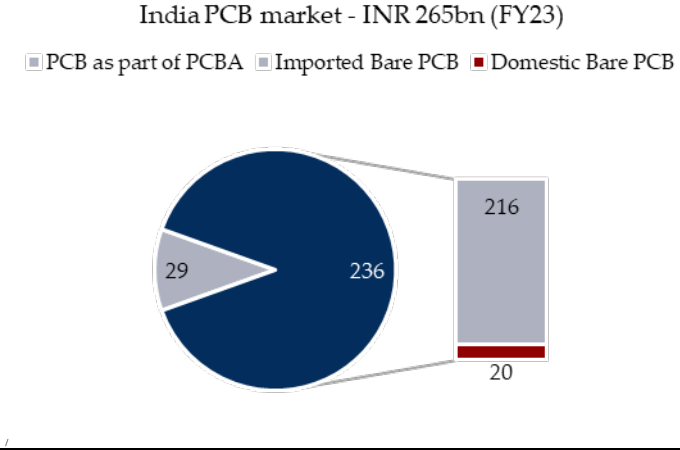
- India's total PCB market currently stands at INR 265bn, of which INR 29bn is imported as part of PCBA. Of the bare PCB market (INR 236bn), 90%+ is currently being imported while the rest is domestically sourced. With the expected increase in electronics production in the country, the bare PCB industry is likely to grow at 23% CAGR over the next five years to reach INR 667bn.

Exhibit 62: India bare PCB market to grow at 23% CAGR



Source: Kaynes Placement Document, HSIE Research

Exhibit 63: 90%+ of current requirement imported



Source: Kaynes Placement Document, HSIE Research

Overview of Indian EMS players

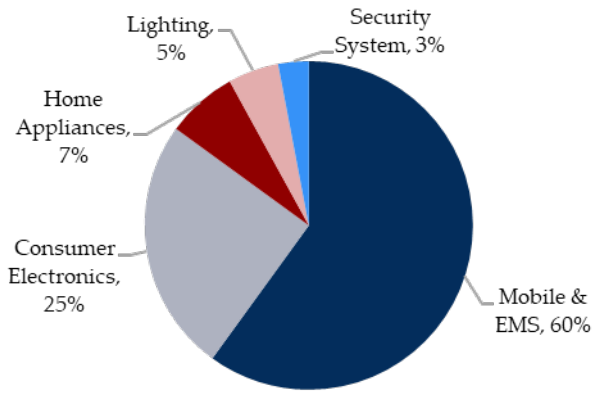
Indian EMS players are present across various end-use industries and are actively looking to expand their offerings. Of the lot, Kaynes has presence across most industry verticals ranging from CEA, Industrial, Telecom, Aerospace & Defence, IT, and Medical to Railway.

Exhibit 64: India EMS player's presence across various end-use industry

Company	Mobile Phones	CEA	Automotive	Industrial	Telecom	Aerospace & Defence	IT	Medical	Railway
Dixon	✓	✓	×	×	×	×	×	✓	×
Kaynes	×	✓	✓	✓	✓	✓	✓	✓	✓
Amber	×	✓	✓	✓	✓	×	×	×	✓
Syrma SGS	×	✓	✓	✓	✓	×	×	✓	×
Avalon	×	×	✓	✓	✓	✓	×	✓	✓
Elin Electronics	×	✓	×	×	×	×	×	×	×
Bharat FIH	✓	✓	✓	×	✓	✓	✓	×	×
Sanmina-SCI	×	×	✓	✓	✓	✓	✓	✓	×
SFO Technologies	×	×	✓	✓	✓	✓	×	✓	×
VVDN Technologies	×	×	✓	✓	✓	×	✓	×	×

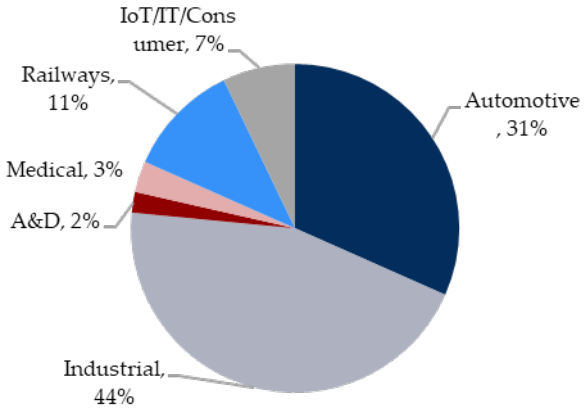
Source: Company, HSIE Research

Exhibit 65: Dixon revenue break-up by end-industry



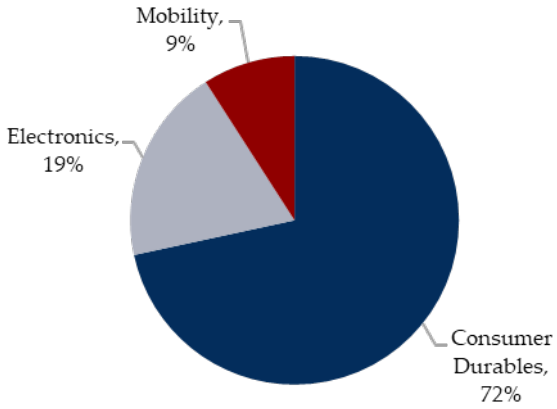
Source: Company, HSIE Research

Exhibit 66: Kaynes revenue break-up by end-industry



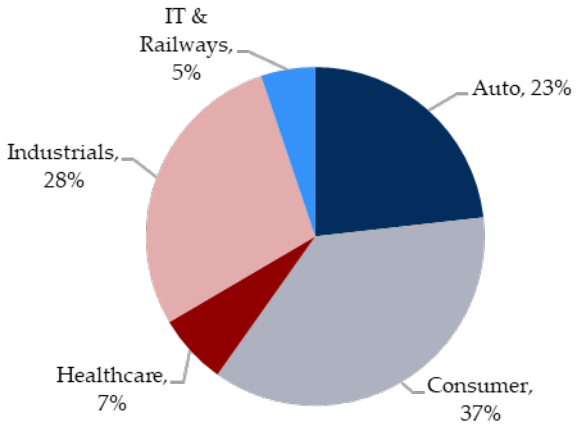
Source: Company, HSIE Research

Exhibit 67: Amber revenue break-up by end-industry



Source: Company, HSIE Research

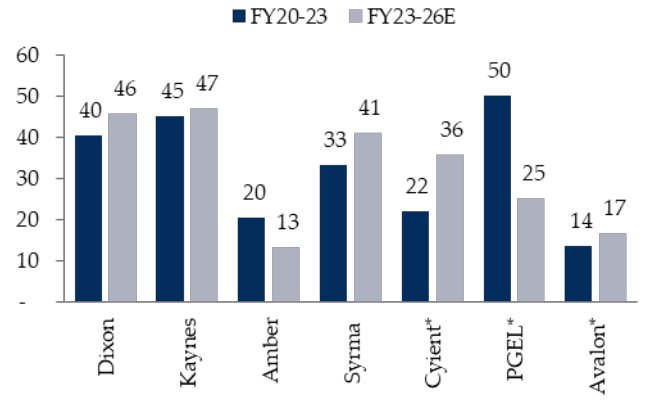
Exhibit 68: Syrma revenue break-up by end-industry



Source: Company, HSIE Research

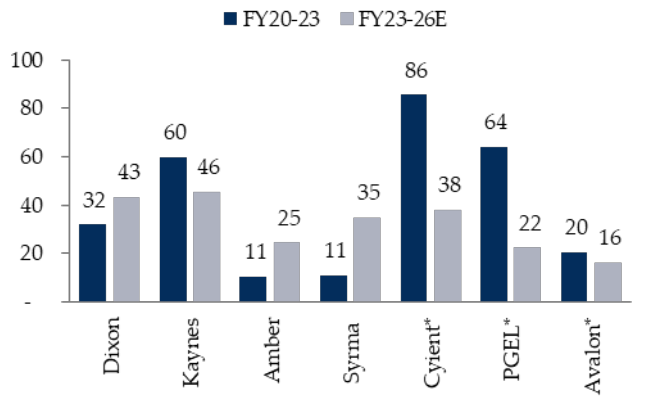
Given the industry tailwinds, India's EMS players have seen a spurt in growth metrics. We believe, this is only just the beginning as India's EMS industry is relatively young and expect such high growth rates to sustain led by (1) large captive demand (with per capita consumption of electronics only a quarter of the global average); (2) the proliferation of electronics in everyday products; (3) import substitution strategies; and (4) rising exports.

Exhibit 69: India EMS – Revenue CAGR %



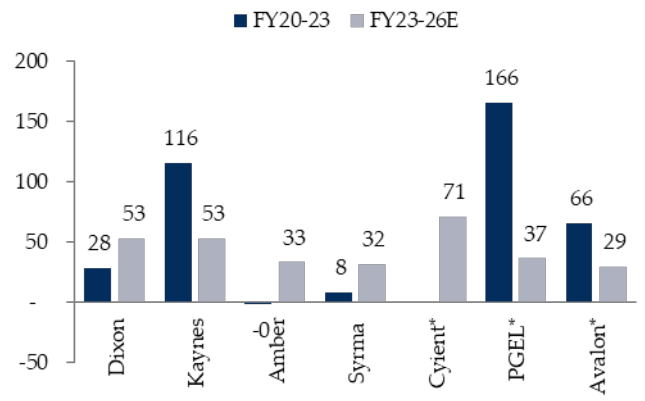
Source: Company, HSIE Research *Bloomberg estimates

Exhibit 70: India EMS – EBITDA CAGR %



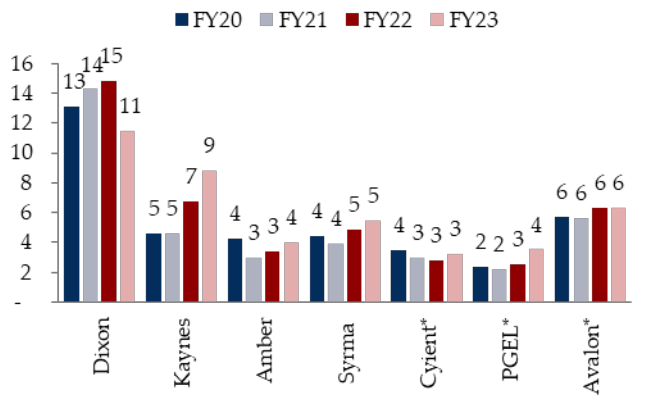
Source: Company, HSIE Research *Bloomberg estimates

Exhibit 71: India EMS – PAT CAGR %



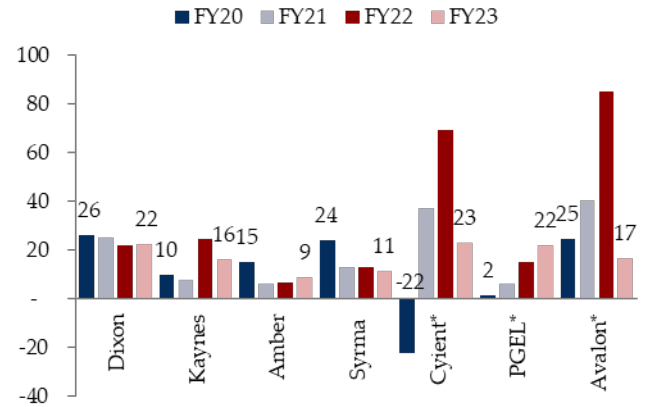
Source: Company, HSIE Research *Bloomberg estimates

Exhibit 72: India EMS – Asset turns



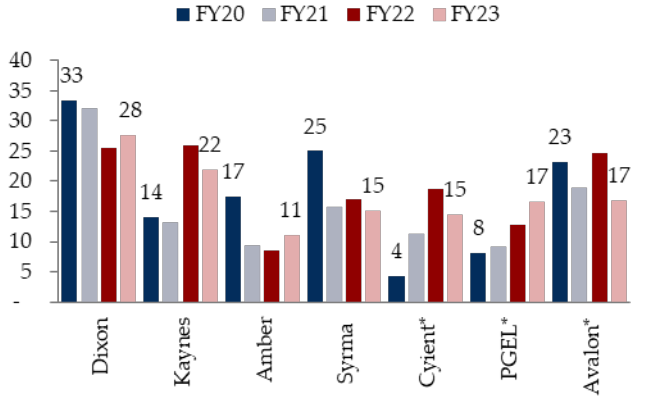
Source: Company, HSIE Research

Exhibit 73: India EMS – RoE %



Source: Company, HSIE Research

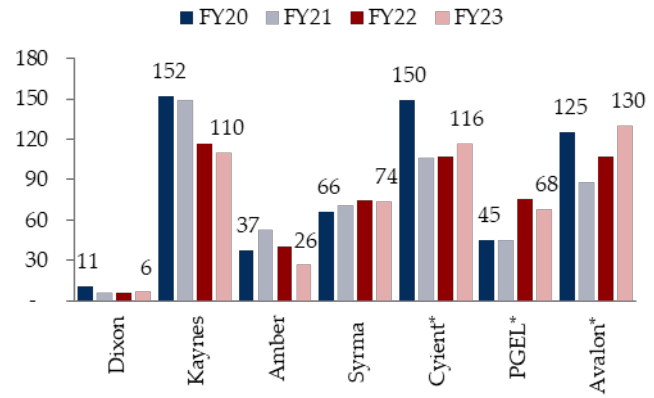
Exhibit 74: India EMS – RoCE %



Source: Company, HSIE Research

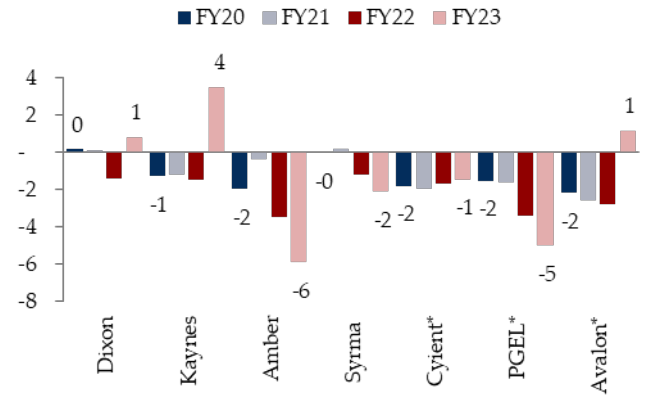
With the absence of a local component manufacturing ecosystem, most of the raw materials are imported. Additionally, especially in the B2B end-use industry, given the large number of SKUs/components being dealt with, there is a high requirement to stock sufficient inventory. This leads to higher working capital requirements for all EMS players. Dixon has one the best net working capital days cycle given higher exposure to B2C perspective business.

Exhibit 75: India EMS – Net Working Capital Days



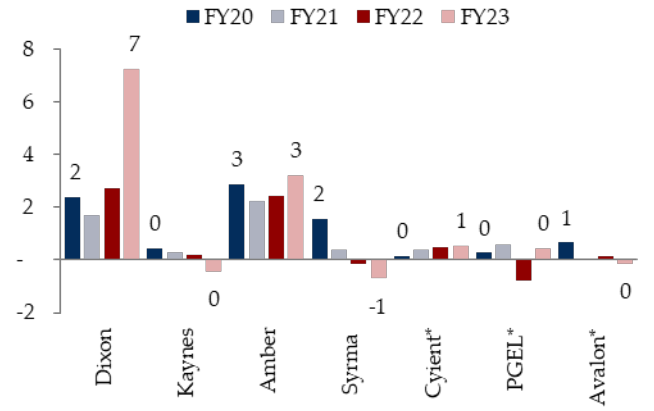
Source: Company, HSIE Research

Exhibit 76: India EMS - Net cash/ (debt)



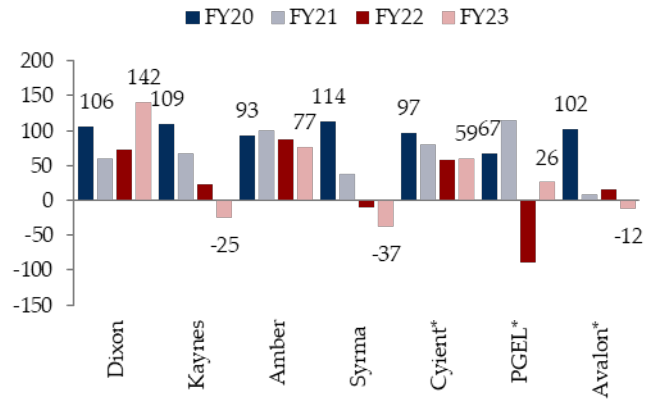
Source: Company, HSIE Research

Exhibit 77: India EMS – OFC (INR bn)



Source: Company, HSIE Research

Exhibit 78: India EMS - OFC/EBITDA %



Source: Company, HSIE Research

Valuation Summary

Exhibit 79: Valuation Summary

Company	Mcap (INR bn)	CMP (INR)	TP (INR)	RECO	EPS (INR)				P/E (x)				EV/EBITDA (x)				Rev CAGR	EPS CAGR
					FY23	FY24E	FY25E	FY26E	FY23	FY24E	FY25E	FY26E	FY23	FY24E	FY25E	FY26E	FY23-26	FY23-26
Dixon	427	7,161	7,700	ADD	42.9	63.8	111.1	154.0	166.9	112.2	64.4	46.5	83.0	59.9	37.7	27.8	46	53
Kaynes	179	2,797	3,000	ADD	16.3	24.4	35.8	53.7	171.1	114.8	78.0	52.1	94.5	66.7	45.8	31.7	47	49
Amber	120	3,552	4,200	BUY	46.7	37.0	75.2	110.6	76.1	96.1	47.2	32.1	30.1	26.7	19.7	15.4	13	33
Syrma SGS	85	482	620	BUY	6.7	7.1	9.7	15.5	71.4	67.5	49.7	31.2	46.5	42.0	28.3	19.1	41	32

Source: Company, HSIE Research

Exhibit 80: Earnings Summary

Company	Revenue (INR mn)				EBITDA (INR mn)				EBITDA Margin %				PBT (INR mn)			
	FY23	FY24E	FY25E	FY26E	FY23	FY24E	FY25E	FY26E	FY23	FY24E	FY25E	FY26E	FY23	FY24E	FY25E	FY26E
Dixon	1,21,920	1,81,057	2,81,772	3,77,498	5,128	7,130	11,291	15,114	4.2	3.9	4.0	4.0	3,432	4,949	8,711	12,093
Kaynes	11,261	17,749	25,667	35,865	1,683	2,441	3,582	5,186	14.9	13.8	14.0	14.5	1,260	1,997	3,014	4,513
Amber	69,271	70,126	85,613	1,00,961	4,179	4,727	6,398	8,074	6.0	6.7	7.5	8.0	2,197	1,801	3,624	5,273
Syrma SGS	20,484	29,517	42,054	57,640	1,878	2,127	3,142	4,624	9.2	7.2	7.5	8.0	1,787	1,830	2,571	3,966

Company	APAT (INR mn)				RoE %				RoCE %				EV/Revenue (x)			
	FY23	FY24E	FY25E	FY26E	FY23	FY24E	FY25E	FY26E	FY23	FY24E	FY25E	FY26E	FY23	FY24E	FY25E	FY26E
Dixon	2,555	3,801	6,618	9,172	22.4	25.9	33.7	33.8	27.6	34.6	44.9	46.3	3.5	2.4	1.5	1.1
Kaynes*	950	1,557	2,291	3,430	16.4	15.0	18.6	22.6	21.9	21.0	24.1	28.0	14.1	9.2	6.4	4.6
Amber	1,572	1,246	2,535	3,726	8.6	6.3	11.7	15.1	11.0	10.4	14.5	17.3	1.8	1.8	1.5	1.2
Syrma SGS	1,193	1,261	1,716	2,735	11.3	7.9	10.0	14.4	15.1	10.9	13.4	18.2	4.3	3.0	2.1	1.5

Source: Company, HSIE Research *Kaynes RoE/RoCE ex of QIP fund raise of INR 14bn

Exhibit 81: India EMS – Earnings and Valuation summary

Company	Revenue CAGR		APAT CAGR		P/E (x)				EV/EBITDA (x)				RoE %			
	FY20-23	FY23-26E	FY20-23	FY23-26E	FY23	FY24E	FY25E	FY26E	FY23	FY24E	FY25E	FY26E	FY23	FY24E	FY25E	FY26E
Dixon	40	46	28	53	166.9	112.2	64.4	46.5	83.0	59.9	37.7	27.8	22	26	34	34
Kaynes	45	47	116	49	171.1	114.8	78.0	52.1	94.5	66.7	45.8	31.7	16	15	19	23
Amber	20	13	0	33	76.1	96.1	47.2	32.1	30.1	26.7	19.7	15.4	9	6	12	15
Syrma SGS	33	41	8	32	71.4	67.5	49.7	31.2	46.5	42.0	28.3	19.1	11	8	10	14
Cyient DLM*	22	36	na	71	89.0	91.0	51.8	34.3	61.1	51.5	35.3	24.8	23	10	10	14
PG Electroplast*	50	25	166	37	46.0	33.2	25.6	20.5	24.2	18.7	15.4	13.2	22	15	14	15
Avalon*	14	17	66	29	53.4	89.5	40.0	26.7	28.8	45.0	26.5	18.3	17	6	13	16

Source: Company, HSIE Research *Bloomberg estimates

INSTITUTIONAL RESEARCH

Dixon Technologies

Execution kingpin

We initiate coverage on Dixon with an ADD rating and target price of INR 7,700. Dixon, one of the largest EMS players in India, is a compelling play on the government's push to make India a global destination for electronics manufacturing, given its large presence across several segments. Over the past decade, Dixon has exhibited superior execution capabilities, having grown its revenue/PAT at a CAGR of 32/48%, led by (1) deep understanding and expertise in electronics manufacturing; (2) ability to seed and scale new businesses; (3) deep backward integration to provide lowest BOM costs; (4) new customer addition and increasing wallet share amongst existing ones; (5) best in class manufacturing set-up and R&D centres; and (6) institutionalized processes. We believe the company has enough legs to grow at an accelerated rate over the next three years led by the mobile and EMS segment.

We estimate Dixon's revenue/EBITDA/PAT to grow at a CAGR of 46/43/53% over FY23-26E. At CMP, the stock implies a revenue/EBIT CAGR of 26/27% over the next decade. We value the stock at 50x FY26 earnings (in-line with 5-year average) to arrive at a target price of INR 7,700. Initiate coverage with an ADD rating.

- **Superior execution capabilities:** Dixon follows a "brand behind brand" philosophy and acts as a discernible link between end-users and leading electronic brands there. Dixon's playbook has been straightforward – (1) enter a category; (2) create scale; (3) increase backward integration capabilities thereby offering cost-competitive offerings which ensure customer stickiness. Since its IPO in 2017, Dixon has exhibited superior execution capabilities with its revenue/ PAT having grown by 4.3/4.6/4.2x with an average RoE/RoCE of 23/30%. During this period, Dixon incurred a cumulative capex of INR 13bn which was all funded through internal accruals (CFO: INR 15bn).
- **Championing Atmanirbhar Bharat:** Dixon has been an early flagbearer of the government's Atmanirbhar Bharat initiative and is a participant in five of the government's PLI schemes comprising 38% of the total approved financial outlay. Dixon's Mobile and EMS segment (Mobile, IT Hardware, Telecom, Hearables & Wearables) will be the key growth driver growing at 75% CAGR over FY23-26E (contributing c.85%+ of incremental revenue). Even amongst this, Mobile will be the key driver, given (1) the ramp-up of volumes with existing customers (Motorola, Xiaomi, Itel) and (2) new customer acquisitions.
- **Valuation and outlook:** We estimate revenue/PAT will grow at 46/53% over FY23-26E with 30%+ RoE and 40%+ RoCE. At CMP, the stock implies revenue/EBIT CAGR of 26/27% over the next decade, which in our view, looks achievable given the long runway for growth with India's EMS industry being at an inflection point. We value the stock at 50x FY26 earnings (in line with the 5-year average) to arrive at a target price of INR 7,700. Initiate coverage with an ADD rating. **Key risks:** (1) Competition from global EMS companies setting up shop in India. (2) In-house manufacturing by established brands. (3) A subdued demand environment can lead to delays in orders from clients.

Financial summary

YE Mar (INR mn)	FY21	FY22	FY23	FY24E	FY25E	FY26E
Net Sales	64,482	1,06,971	1,21,920	1,81,057	2,81,772	3,77,498
EBITDA	2,866	3,791	5,128	7,130	11,291	15,114
APAT	1,598	1,902	2,555	3,801	6,618	9,172
Diluted EPS (INR)	27.3	32.0	42.9	63.8	111.1	154.0
P/E (x)	262.5	223.5	166.9	112.2	64.4	46.5
EV / EBITDA (x)	146.3	112.5	83.0	59.9	37.7	27.8
RoE (%)	25.0	21.9	22.4	25.9	33.7	33.8

Source: Company, HSIE Research

ADD

CMP *(as on 22 Mar2024)*	INR 7,161
Target Price	INR 7,700
NIFTY	22,097

KEY STOCK DATA	
Bloomberg code	DIXON IN
No. of Shares (mn)	60
MCap (INR bn) / ($ mn)	431/5,267
6m avg traded value (INR mn)	2,811
52 Week high / low	INR 7,236/2,754

STOCK PERFORMANCE (%)	3M	6M	12M
Absolute (%)	11.5	41.2	149.9
Relative (%)	9.4	31.3	123.7

SHAREHOLDING PATTERN (%)	Sep-23	Dec-23
Promoters	33.80	33.63
FIs & Local MFs	27.44	26.40
FPIs	15.66	17.41
Public & Others	23.10	22.56
Pledged Shares	0.00	0.00

Source : BSE

Pledged shares as % of total shares

Paarth Gala
paarth.gala@hdfcsec.com
+91-22-6171-7336

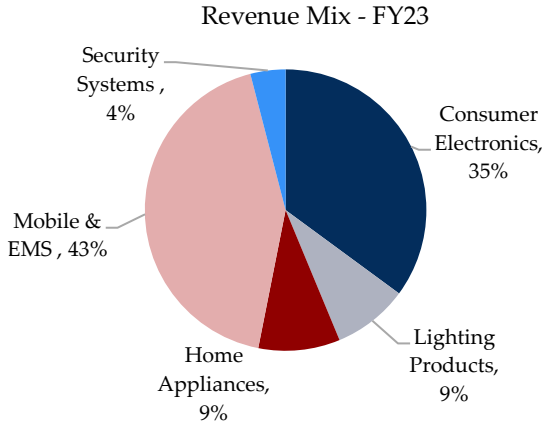
Dixon Technologies—the brand behind brands

Dixon Technologies, a home-grown manufacturing champion, is one of the largest Indian Electronic Manufacturing Services (EMS) providers offering an extensive range of products for renowned global brands. Dixon offers solutions across consumer durables, home appliances, lighting, mobile phones, security devices, set-top boxes, wearables, and medical equipment, as well as LED TV panel repair and refurbishment.

- Dixon follows a "brand behind brand" philosophy and acts as a discernible link between end-users and leading electronic brands there. It is a trusted partner for 70+ global and domestic brands. Dixon's vision is to be the most preferred and trusted manufacturing and design partner to brands.
- Dixon has a large manufacturing footprint spread across the country. Today, they operate through more than 21 units across the group with a few more units coming online in the ensuing months.
- The focus has always been on developing and designing industry-leading products as well as building a frugal, flexible, and fungible manufacturing base, thereby helping meet diverse client expectations.
- Endeavour has always been to create economies of scale in each vertical thereby helping realise cost benefits which are passed on to the customers. Dixon boasts of having India's largest capacity for LED TVs and Lighting (fourth largest globally for LED bulbs). It also enjoys a high manufacturing share in Washing Machine (30%); Mobile Phones(15%+), and Security Surveillance Systems (25%).
- In terms of offerings, Dixon's business can be broadly categorised into Original Design Manufacturing (ODM) and Original Equipment Manufacturing (OEM). While 100% of the home appliances business (Washing Machine and Refrigerator) is on an ODM basis, the Lighting/Consumer Electronics (LED TV) ODM mix stands at 32%/94% respectively. On an overall basis, the ODM mix stands at c.20% (9MFY24).
- Dixon has been championing the government's Atmanirbhar Bharat initiative and is a proud recipient of approval under five PLI schemes (Mobile, IT Hardware, Telecom, Lighting, and Air Conditioners)

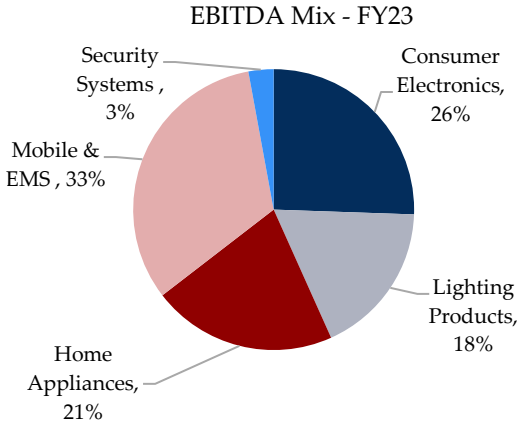
Over the past decade, Dixon's revenues have grown at an exponential CAGR of 32% on the back of (1) their integrated manufacturing facilities; (2) cost competitiveness; (3) their strong and diverse client base; (4) ability to seed and scale up new segments; (5) technical know-how; (6) experienced leadership team; and (7) robust R&D capabilities.

Exhibit 1: Mobile & EMS segment dominates revenue…



Source: Company, HSIE Research

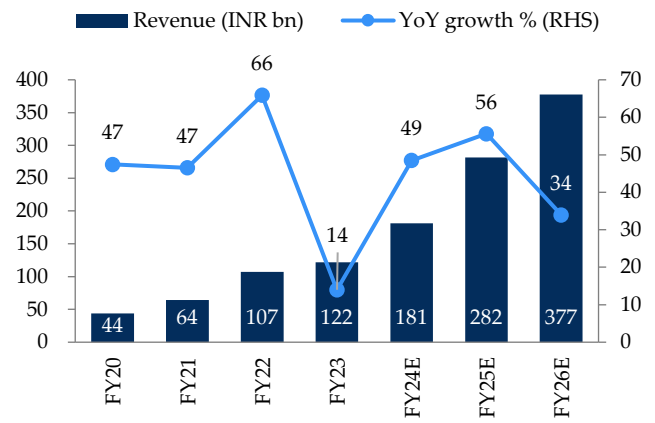
Exhibit 2: …as well as EBITDA



Source: Company, HSIE Research

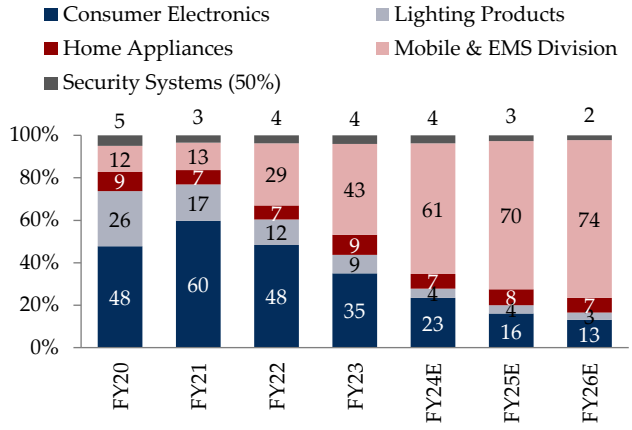
Story in charts

Exhibit 3:Revenue to grow at 46% CAGR over FY23-26E



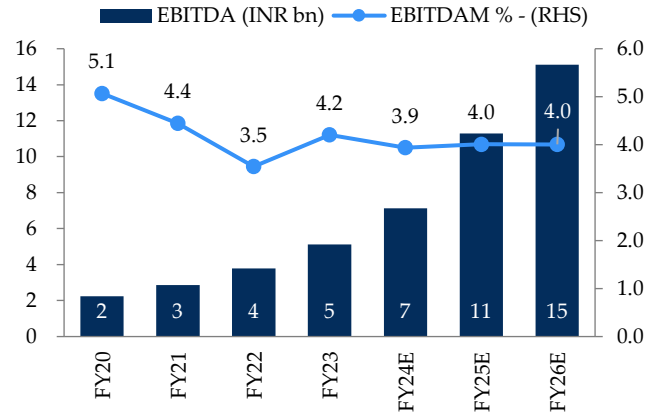
Source: Company, HSIE Research

Exhibit 4: Revenue Mix



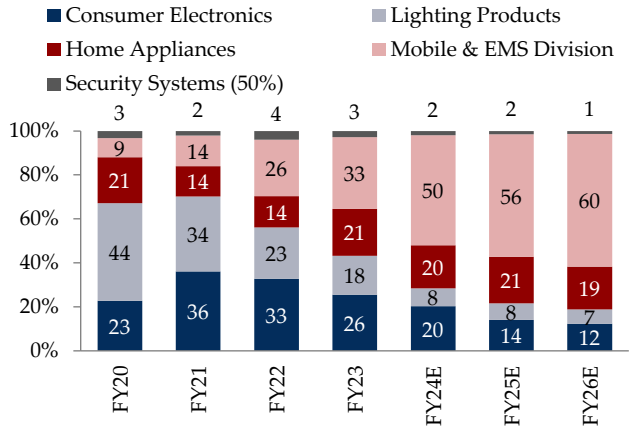
Source: Company, HSIE Research

Exhibit 5:EBITDA to grow at 43% CAGR over FY23-26E



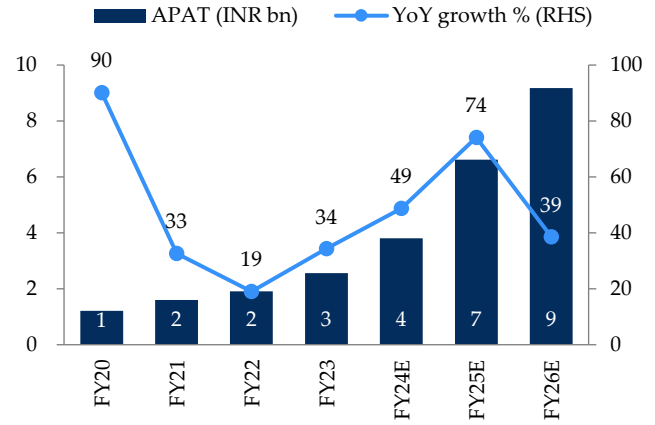
Source: Company, HSIE Research

Exhibit 6: EBITDA Mix



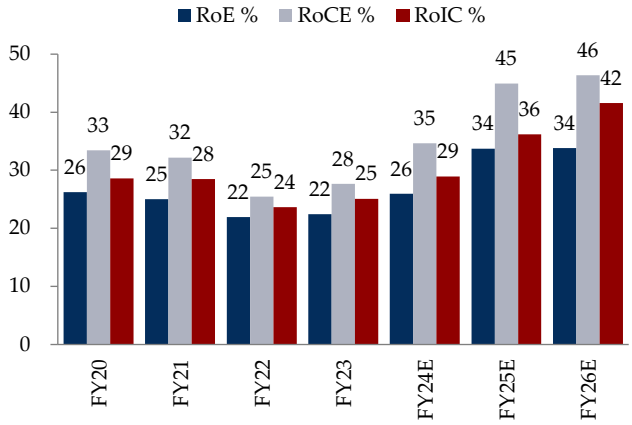
Source: Company, HSIE Research

Exhibit 7:PAT to grow at 53% CAGR over FY23-26E



Source: Company, HSIE Research

Exhibit 8: Strong return ratios



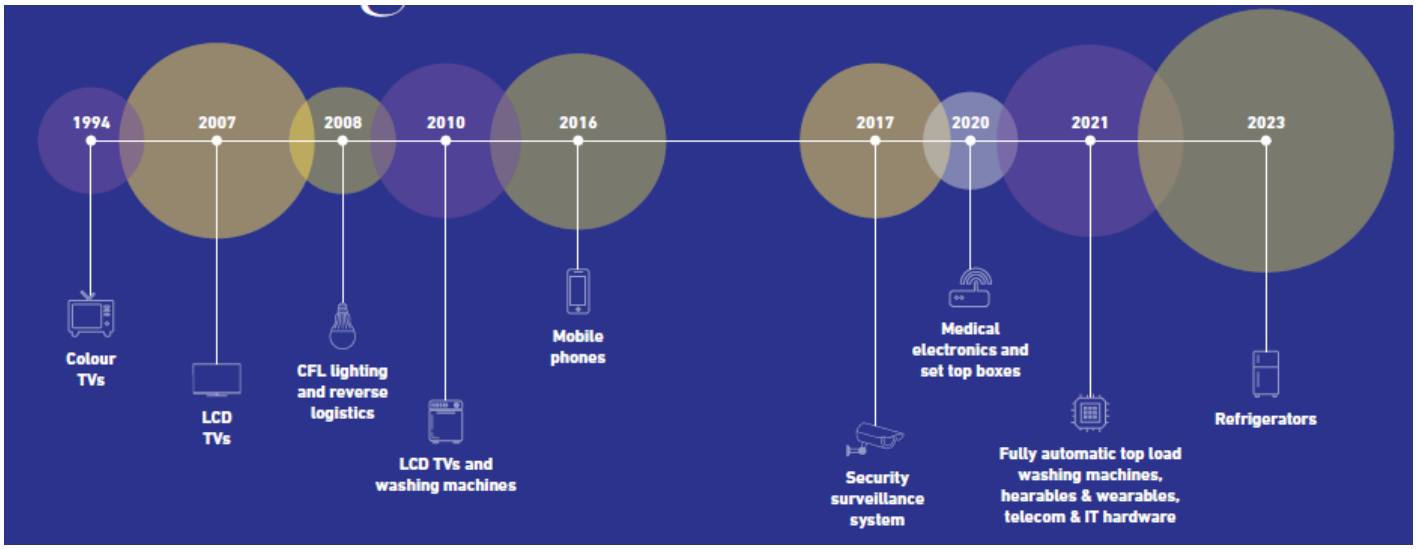
Source: Company, HSIE Research

Ability to seed and scale new businesses

Creating new growth vectors

Dixon made its humble beginning in the EMS industry in 1994 through the manufacture of colour TVs. Over the years, it has successfully entered and scaled up other categories like LED TVs, Washing Machine, and LED lighting. After successfully achieving scale in these categories, Dixon has earmarked Mobile & EMS (IT Hardware, Telecom, Hearable & Wearable) as new drivers of growth. Dixon's playbook has been rather straightforward - after entering a category, it looks to create scale and increase its backward integration capabilities thereby making its offering cost-competitive and ensuring customer stickiness. Today, Dixon boasts of 35/30/50/15% share of India's requirement in LED TVs/Semi-Automatic Washing Machines/LED Lamps/Mobile. Dixon's capabilities of entering and scaling up new lines of businesses are evident from its 32% revenue CAGR over the last decade.

Exhibit 9: Consistent track record of entering and scaling up new segments



Source: Company; HSIE Research

Increasing wallet share of existing customers; adding new customers

Over the years, Dixon has consistently added new customers across product categories. Moreover, leveraging its longstanding relationships with top-tier brands, Dixon has successfully increased its wallet share by manufacturing multiple products for them.

Exhibit 10: Consistent addition of new clients; increased share of wallet with existing clients

Segment	FY18	FY19	FY20	FY21	FY22	FY23	YTDFY24
TVs	Skyworth, TCL	Xiaomi	Samsung, Toshiba, Nokia, Hisense, Flipkart	VU, Oneplus, Huawei			
Lighting	Crompton Consumer, Wipro, Panasonic, Anchor, Jaguar, Usha	Syska, Orient, Luker	Havells, Ajanta, Polycab				
Home Appliances	Flipkart, Lloyd, Micromax		Voltas Beko, Croma, Reliance	LG	Bosch, Thompson	TCL, Onida, Akai, Sharp	Reliance, Panasonic
Mobile Phones	Blapunkt, Tambo	Samsung, LG		Motorola, Nokia	Orbic	Jio, Teno, Itel	Xiaomi, Compal
Telecom & STB			Jio, Dish TV	Siti Networks	Sun TV, Airtel	Jio	
IT Hardware					Acer		Lenovo
Wearables & Hearables					Boat	Samsung	

Source: Company; HSIE Research

Given Dixon's scale of operations, constant focus on backward integration and execution skillset, it has developed strong, strategic and sustainable relationships with key customers who now largely depend on the company.

- Dixon's relationship with Samsung which started with Washing Machine manufacturing has evolved considerably over the last few years. In 2019, Dixon started manufacturing feature phones before adding smartphones in 2021. We note that out of Dixon's total mobile phone volume of 26.7mn in FY23, 65% came from Samsung (only records conversion fee in revenues). In 2020, Dixon commenced manufacturing LED TVs and more recently has tied up with them for offering combined solutions with its Tizen operating system. Dixon also manufactures TWS and smartwatches. Today, Dixon manufactures 60% of Samsung's TVs, 70-80% of SAWM, 30% of mobile (not in turnover) and 100% of smartwatches and TWS. Such large orders across product categories from a global brand like Samsung demonstrate Dixon's capabilities.
- Even for Xiaomi, Dixon started its relationship with them by manufacturing LED TVs which has now been expanded to smartphones. Dixon takes care of 90%+ of Xiaomi's LED TV requirements in India.
- Dixon started its relationship with Panasonic India by manufacturing LED TVs and over the years has diversified into manufacturing Washing Machines and Mobile Phones for them. Dixon fulfils 100% of Panasonic India's phones and semi-automatic washing machines, 90%+ of its LED TVs, and 80% of bulb requirements.
- Similarly, Dixon's relationship with Phillips began in 2007 for lighting products and has expanded into DVD players and Home Theaters. Today, Dixon manufactures lighting products both as OEM and ODM offerings. Moreover, recently Dixon undertook export orders for them. Dixon supplies 80% of Phillips' indoor lighting.

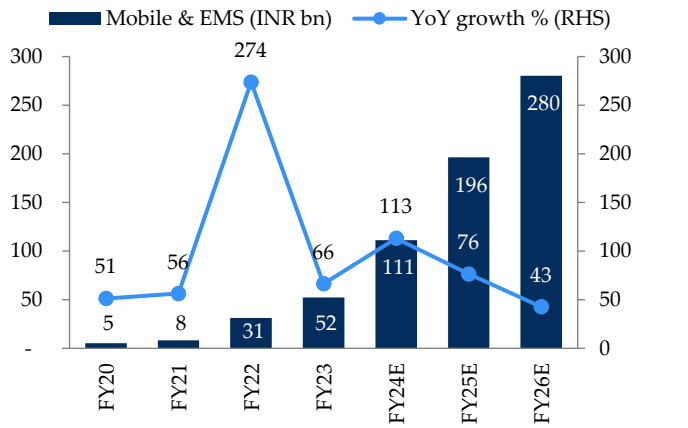
Mobile & EMS (43% of FY23 revenue): Opportunities Galore

Exhibit 11: Focusing on scaling up capacities; customer additions

Product Offering	Dixon Capacity	Market share %	Dixon's Key Customers
Feature Phone	50mn	15%+	Samsung, Motorola, Xiaomi, Nokia, ITEL, Jio, Karbonn etc.
Smart Phone	30mn		
GPON ONT	4mn		Airtel, Jio
Set top box	8mn		Dish TV, Siti Cable, Sun TV, Airtel, Jio
IT Hardware	0.6mn		Acer, Lenovo
Wearable & Hearable	36mn		Boat, Samsung

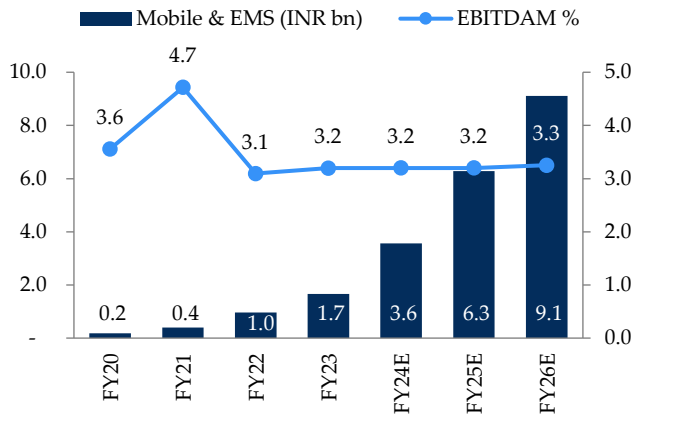
Source: Company; HSIE Research

Exhibit 12: Revenue to grow at 75% over FY23-26E



Source: Company, HSIE Research

Exhibit 13: Margins to remain stable

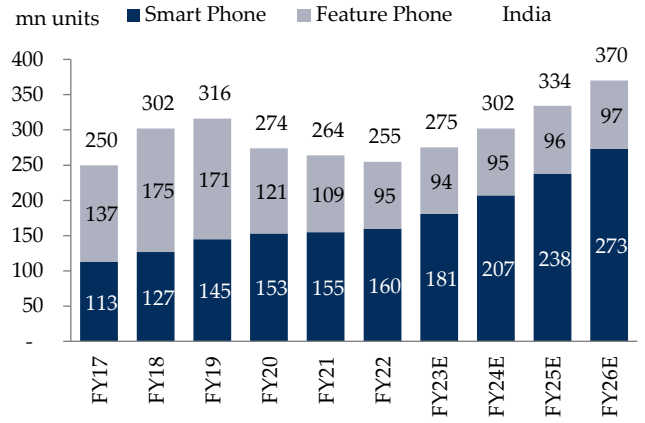


Source: Company, HSIE Research

Industry Outlook—Mobile Phone:

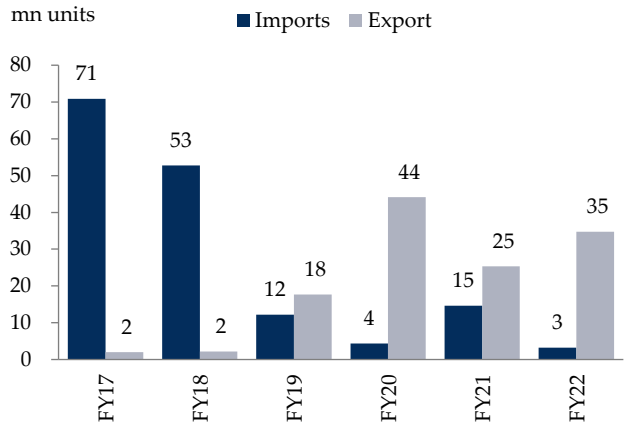
- The Indian mobile phone market consists of both feature phones and smartphones. India is one of the fastest-growing smartphone markets in the world which is expected to grow at 14% CAGR over FY22-26. However, the feature phone segment is expected to remain stagnant during this period.
- Before the government turned its focus towards promoting domestic manufacturing, India's domestic demand for mobile phones was largely met through imports (FY16 imports at 135mn units). However, favourable policymaking (duty structure and PLI) has led to increased domestic production of mobile phones.
- As a result, India's import of smartphones has practically become negligible which is a testament to the growing manufacturing/assembly capability in the country. Moreover, the mobile exports business continues to see robust momentum with exports having grown by 100% and crossing INR 900bn for FY23. India is now exporting smartphones to developed markets, including the UK, Italy, France, the Middle East, Japan, Germany, and Russia.

Exhibit 14: Indian mobile phone market



Source: Bharat FIH, HSIE Research

Exhibit 15: India has turned net exporter of phones



Source: Bharat FIH, HSIE Research

Dixon Strategy and Outlook – Mobile Phones:

- Dixon has manufacturing capabilities across 2G/4G/5G phones and with an annual capacity to manufacture 30mn/50mn smartphones/feature phones, it is one of the largest manufacturers within the country. While it started its business only with smartphones, with most major brands manufacturing in-house until FY18, Dixon started with feature phones as a strategic initiative to grow the business. Even if one puts together all the other segments where Dixon is currently present, Mobile Phones in itself present a large opportunity size.
- Dixon's subsidiary has been approved under the government's PLI scheme for manufacturing of large-scale electronics and was the first company to get disbursement in this category on crossing the revenue threshold
- Dixon has contracts with global brands for both domestic and export markets. Post PLI, Dixon commenced manufacturing smartphones for Motorola as an anchor customer and currently takes care of 10-15% of Motorola's global requirements. In addition to this, Dixon also manufactures for Nokia, Samsung (job work), Xiaomi, Itel and Compal.
- Motorola quarterly volumes are going to be ramped up from 1.5mn to 1.8mn. Xiaomi volumes will be in the range of 0.3-0.4mn per month. For the Itel feature phone, the run rate is likely to be similar to that of Nokia's at 1.2mn per month

while smartphone volumes will be 0.6mn per month. Dixon will commence production of high-end phones for Compal likely from H2FY25.

- Dixon has backwards integrated into key components and plastic parts. They are working actively on display modules. India's localization in mobile phones has increased from earlier 7-8% to c.20% (battery, cables, camera modules). With 40-45% BoM consisting of semiconductors, in the near term, India's localization can go a maximum of up to 30-35% (China: c.40%).
- Given the opportunity size, Dixon will continue to look to expand its manufacturing base to cater to the rising demand. It is building an R&D team and a laboratory in Hyderabad to offer new and industry-leading products.
- The key focus for Dixon is: (1) invest in systems and processes; (2) continue to add customers; (3) reduce manufacturing cost; (4) increase productivity; (5) backwards integration into components; and (6) design (longer term).

Dixon Strategy and Outlook—Other EMS segments:

- **IT Hardware:** Dixon has been among the approved list of applicants for the IT Hardware 2.0 PLI scheme wherein the company has committed to cumulative revenue of INR 480bn over six years (INR 2.5bn capex). India's total market today stands at USD 12bn of which only 25% is locally sourced, making the domestic import substitution opportunity large enough. Dixon has already started manufacturing laptops for Acer and will soon commence manufacturing for Lenovo as well. Together both these brands enjoy a 38% market share in India. Dixon is targeting to cater to 10-15% of their requirements.
- **Telecom:** JV with Bharti group for producing Telecom and CPE devices (IoT devices, routers and modems). JV has got approval from the Ministry of Telecom for the PLI scheme and has achieved a threshold of capex and minimum revenue. Since commencement, the company has already delivered 0.6mn units to Airtel and the order book remains strong. It remains in discussion with a large global brand for existing and new product categories. It has also set up a large-scale manufacturing facility for the production of set-top boxes and is currently catering to all major Indian brands. It has also bagged a very large order of HD Zapper set-top boxes and won orders for Android set-top boxes in partnership with a global ODM. Given the potential, it seeks to expand its footprint into international markets.
- **Wearable and Hearable:** A 50:50 JV with Imagine Marketing (boAt) for designing and manufacturing of wearables and hearables (TWS, neckbands, smartwatches, Bluetooth speakers). Dixon also manufactures TWS and smartwatches for Samsung. With the expectation of good growth in the coming years, Dixon is looking to expand its manufacturing facility. It is also looking to backwards integrate by setting an SMT line for PCB.
- Dixon is also working on entering the industrial electronics segment with a focus on high-value-added business mainly targeting global markets. They have built a small team for the same and have already received some RFQs with some customers and are in the advanced stages of discussion.

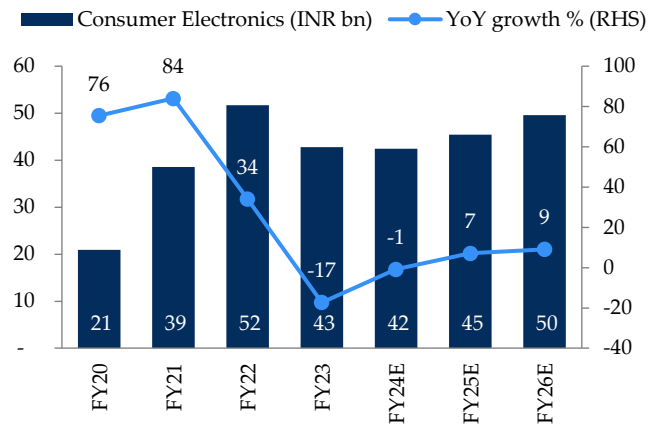
Consumer Electronics (35% of revenue): To increase ODM mix

Exhibit 16: Dixon's LED TV capacity can cater 35% of market requirement

Product Offering	Dixon Capacity	Market share %	Dixon's Key Customers
LED TV (24" to 98")	6mn	35%	Xiaomi, Samsung, Hisense, VU, Panasonic, TCL, Lloyd, Flipkart, Phillips etc.
Smart TVs, Monitors, IFPD Commercial Displays			

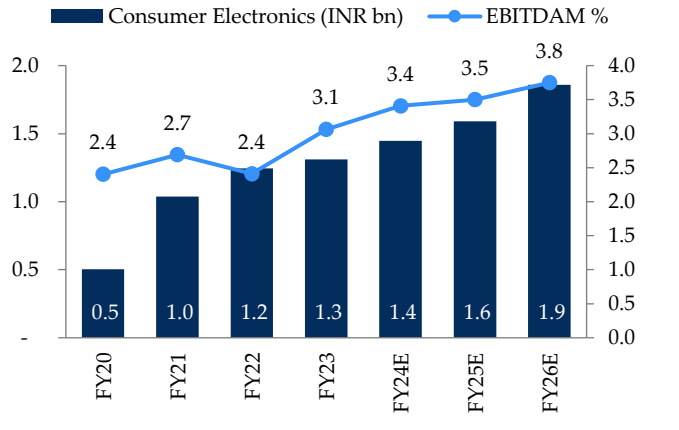
Source: Company; HSIE Research

Exhibit 17: Revenue to grow at 5% over FY23-26E



Source: Company, HSIE Research

Exhibit 18: Margins to improve on increasing ODM mix

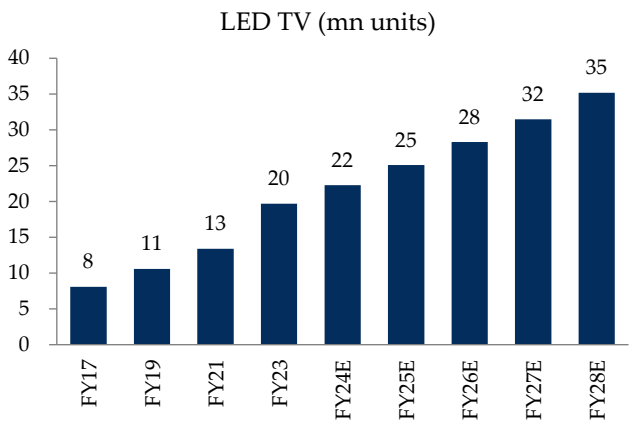


Source: Company, HSIE Research

Industry Outlook:

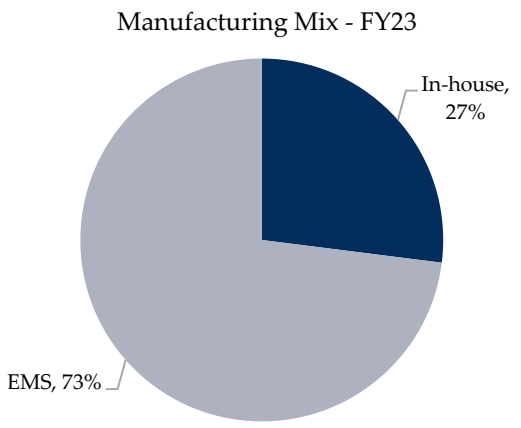
- India's total television market of 22.6mn units (FY23) is dominated by LED TV which consists of c.87% of total industry volumes. Televisions amongst all other consumer electronics have one of the highest penetration levels within the country at 65%+. With decreasing manufacturing costs and increasing consumer affordability, LED TV volumes are likely to grow at a CAGR of 10-12% over the coming years. With the rapid growth of OTT, availability of high-definition content and high-speed broadband, consumers are increasingly preferring Smart TVs.
- Almost all LED TVs are assembled within the country, led by EMS players (70%+ share). Currently, domestic manufacturing is a low-value-added activity as TV panels are imported. Lack of a supporting ecosystem, high panel manufacturing costs, and the technology-intensive nature of panel manufacturing have contributed to an assembly-intensive industry.

Exhibit 19: LED TV volumes to grow at c.10-12% CAGR



Source: PGEL Placement Document, HSIE Research

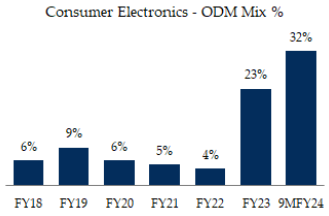
Exhibit 20: Manufacturing dominated by EMS players



Source: PGEL Placement Document, HSIE Research

Dixon Strategy and Outlook:

- Dixon manufactures LED TVs, smart TVs, and monitors for several brands. With an annual capacity of 6.5mn units, Dixon is one the largest LED TV manufacturers in India (c.35% of India's requirements). To further diversify its product offerings, Dixon has started manufacturing commercial displays used in public advertisement & information displays and interactive boards for use in educational institutes and offices.
- Over the years, to further improve quality, lead time and profitability, Dixon has backwards integrated into LCM module assembly, Auto Insertion, SMT and PCB assembly & testing. In its bid to further deepen the level of manufacturing in India, Dixon is looking at starting injection moulding and investing in LED bars.
- With Dixon operating the consumer electronics vertical largely on a prescriptive basis, it did not have ODM capabilities which limited customer acquisition. However, in FY23, Dixon became the first Indian brand to receive sub-licensing rights for Android and Google TV (65%+ market on this platform) which enables it to further penetrate in smart TVs segment. Moreover, it also received a TIZEN license (Samsung's OS).
- Dixon will continue to focus on strengthening ODM and Joint Development Manufacturer (JDM) business with existing customers. With all sub-licenses in place, Dixon will look to ramp up the ODM businesses which shall also aid margin expansion.
- With Dixon already enjoying the lion's share in terms of India's requirement, high category penetration and near-term demand headwinds, growth for the segment is likely to be moderate. However, increasing the scale of operations, backward integration and rising ODM mix shall aid margin expansion.



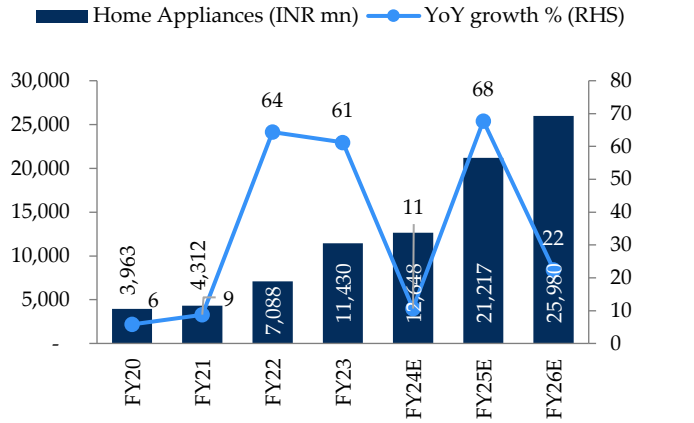
Home Appliances (9% of revenue): FAWM & Refs to drive growth

Exhibit 21: One of the largest SAWM capacity in India; scaling up FAWM and Refrigerator capacities

Product Offering	Dixon Capacity	Market share %	Dixon's Key Customers
Semi-Automatic Washing Machine (SAWM)	2.4mn	30%	Samsung, Godrej, Voltas Beko, Panasonic, Bosch, Lloyd, Flipkart, Haier, TCL, Reliance, Onida etc.
Fully-Automatic Washing Machine (FAWM)	0.6mn		Bosch, Voltas Beko, Lloyd, Reliance, Panasonic
Refrigerator	1.2mn	10%	

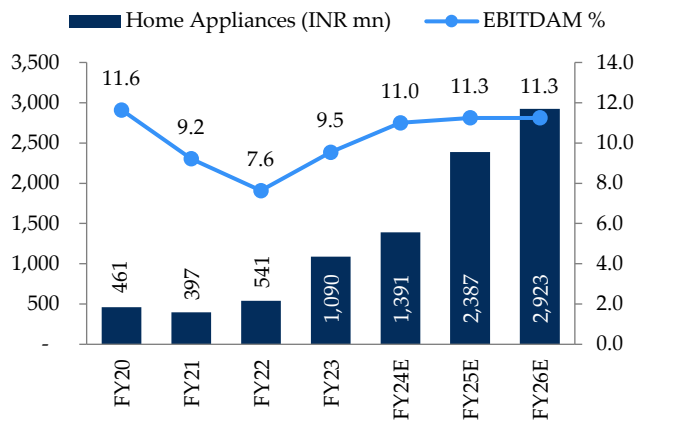
Source: Company; HSIE Research

Exhibit 22: Revenue to grow at 31% over FY23-26E



Source: Company, HSIE Research

Exhibit 23: Margins to remain stable

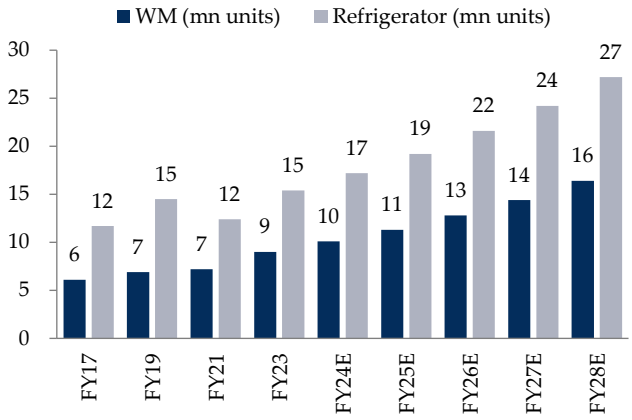


Source: Company, HSIE Research

Industry Outlook:

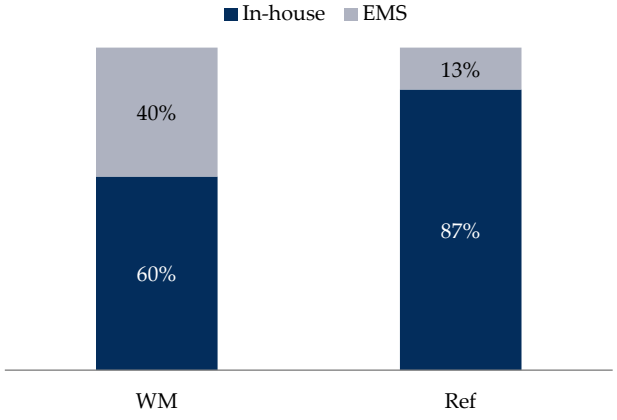
- The home appliances segment in India has seen a consistent increase in sales volume led by increasing affordability, rising aspiration of consumers, focus on energy-efficient products and increasing digital penetration. In addition to this, the low penetration of washing machines (13-14%) and refrigerators (33%) implies enough headroom for growth in the medium-long term for both these categories.
- The washing machine market is dominated by fully automatic systems with a 60%+ share and the remaining is with semi-automatic systems. Within the fully automatic washing machines, top-loading machines dominate the market over front-loading machines as the price differential between the two is very high.
- The washing machine industry has strong manufacturing capabilities with a low dependence on imports. Semi-automatic washing machines are majorly manufactured in India with very minimal component dependence on imports. Since the electronic content in semi-automatic washing machines is low, the local value addition in this segment is very high. The manufacturing share of EMS players stands at 40% of which the ODM mix is relatively less at 27%.
- Within refrigerators, direct cool refrigerators dominate the market with a 60% share given their lower cost and ease of maintenance. However, frost-free refrigerators should grow at a faster rate due to their energy-rating capabilities and improved cooling efficiency. Refrigerators have a low outsourcing mix in manufacturing (13%).

Exhibit 24: WM/Ref volumes to grow at 13/12% CAGR



Source: PGEL Placement Document, HSIE Research

Exhibit 25: WM have higher EMS mix



Source: PGEL Placement Document, HSIE Research

Dixon Strategy and Outlook:

- Having started its journey in the semi-automatic washing machine category, Dixon has one of the largest portfolios of 160 odd models (6kg to 14kg) with an annual manufacturing capacity of 2.4mn units (30% of India's requirement). Dixon supplies to a host of brands like Samsung, Godrej, Voltas Beko, Panasonic, Bosch, Lloyd, Flipkart, Haier, TCL, Reliance, and Onida.
- Dixon entered the fully automatic category washing machine space only in late FY22 with an annual capacity of 0.6mn units and Bosch as an anchor customer. It currently manufactures 100 variants across 6.5kg-11kg. In addition to Bosch, Dixon also supplies to the likes of Voltas Beko, Lloyd, Reliance, and Panasonic.
- In line with their own backward integration strategy, they have their plastic moulding facility and power-pressed for sheet metal stamping. In addition to this, to cut down imports from China, Dixon has set up its own Tool Room for in-house Mould Manufacturing. The majority of tools are now being manufactured in-house.

- The entire revenue is ODM-driven. Dixon is increasing its R&D investment to utilise state-of-the-art technologies to meet changing consumer preferences. Dixon has a state-of-the-art testing laboratory which will be very soon extended to NABL laboratory.
- The focus remains on introducing more designs with new features in both the categories of semi and fully automatic. Also, Dixon is actively working to acquire more clients, especially for the fully automatic washing machine segment.
- In refrigerators, Dixon has created an annual capacity of 1.2mn direct cool refrigerators (10% of India's 190-225 litres requirement) with multiple features and different star ratings. Agreements have already been signed with large Indian brands with trial runs underway. Expect commercial production from Q1FY25.
- In addition to this, Dixon is also working on introducing glass door models and has started developing two-door frost-free models in this category.
- Although the white goods industry is facing demand headwinds, Dixon expects volumes for its home appliances segment to remain healthy backed by introducing more SKUs, increasing wallet share amongst existing customers and adding more customers. While SAWM is expected to exceed the industry average growth, the segment's expansion will mainly be propelled by increased production in FAWM and refrigerators.

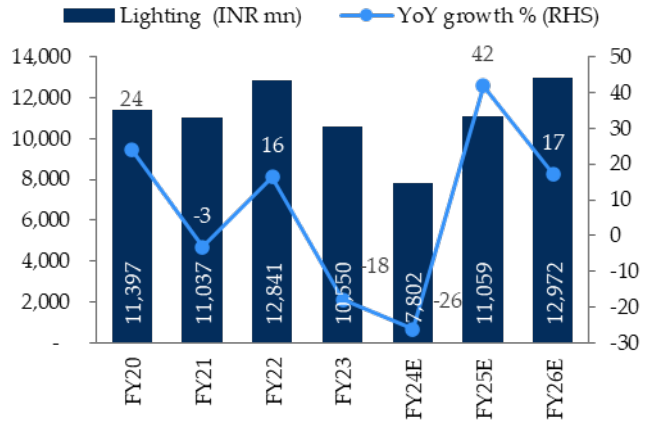
Lighting Products (9% of revenue): Facing headwinds

Exhibit 26: Dixon has the fourth largest LED lamps capacity globally

Product Offering	Dixon Capacity	Market share %	Dixon's Key Customers
LED Lamps	300mn	50%	Signify, Panasonic, Wipro, Bajaj, Syska, Orient, Polycab, Luminous, Crompton, Havells etc.
LED Battens	50mn		
LED downlighters	18mn		
Drivers, Smart Lighting, LED panels, Strip & Rope			

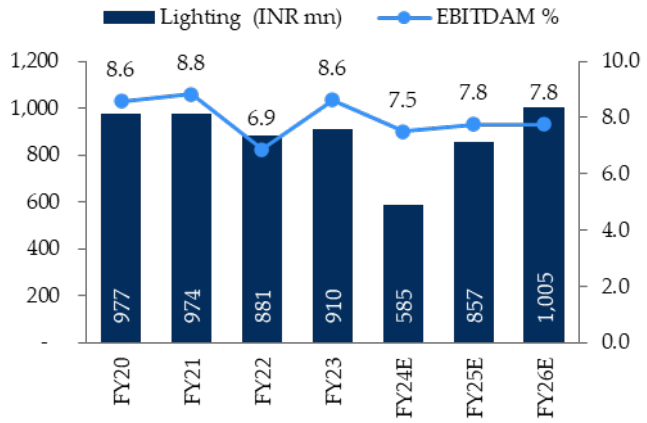
Source: Company; HSIE Research

Exhibit 27: Revenue to grow at 7% over FY23-26E



Source: Company, HSIE Research

Exhibit 28: Margins to remain stable



Source: Company, HSIE Research

Industry Outlook:

- The Indian LED lighting industry has witnessed remarkable growth in recent years, driven by factors such as government initiatives promoting energy efficiency and increasing consumer awareness about sustainable lighting solutions. The industry is witnessing robust growth in both consumer and professional LED luminaires segments. As the market continues to grow and technological advancements continue, LED lighting is anticipated to become even more prevalent across diverse sectors, contributing to a more energy-efficient future for the country.
- However, over the last few quarters, there has been some sluggishness in demand and a reduction of 18-20% in ASPs due to the change from driver-based technology to DOB (driver on board) and a reduction in commodity prices. LED bulbs have been the most impacted by this. Moreover, there is increased competitive intensity even from contract manufacturers.
- While B2C demand continues to remain soft, there is sustained momentum in the B2C segment. Moreover, the price drop which happened due to the migration of technology now seems to have bottomed out.

Dixon Strategy and Outlook:

- Dixon is one of India's largest ODM players in lighting solutions offering 2000+ variants of LED bulbs. With a capacity of manufacturing 300mn LED lamps annually, Dixon is the fourth largest LED lamp manufacturer in the world and caters to 50% of India's LED lamps requirements. In addition to lamps, LED batten capacity stands at 50mn units while downlighters stand at 18mn units.
- Dixon also manufactures key inputs such as sheet metal, plastic moulding, and wound components, which has enabled it to emerge as a large ODM player in India. Leveraging PLI for LED lighting components, Dixon is now getting into backward integration of mechanicals.
- LED bulbs have been on a declining trend due to (1) commoditisation of the product and technology-led price erosion and (2) consumer demand shifting more towards ceiling lights and downlighters. As a result, with LED bulbs being a mainstay of their revenue, Dixon has been impacted by this development.
- To diversify its product offerings and enter the professional lighting segment, Dixon set up an R&D team almost a year ago by onboarding senior professionals from the industry.
- Dixon has recently launched a rope and strip lighting range. It is looking to increase its saliency in ceiling lights, battens and downlighters. Even within professional lighting, its industrial and street lighting solutions are likely to be launched soon. Dixon had also acquired Smart Lighting products based on the Bluetooth Mesh technology from iBahn Illuminations in FY23.
- Dixon has taken baby steps in the export market by executing its first export order for customers in the Middle East which has seen some repeat orders. Dixon has also done several trial orders for Germany and is in advanced talks for orders from the EU/US. Orders from the EU/US can be a Rs 10 bn opportunity over the next two to three years. LED bulbs are a USD 8-9 bn market globally.
- New product launches, entry into professional lighting, and increasing exports are likely to drive growth in this segment.

Superior execution capabilities

Ever since its IPO in 2017 where it raised a mere INR 600mn via fresh issue, Dixon's revenue/EBITDA/PAT have grown 4.3/4.6/4.2x respectively. During this period, Dixon incurred a cumulative capex of c.INR 13bn as it scaled up its presence in existing categories while entering new ones. We note that all this was met through internal cash generation as cumulative CFO stood at INR 15bn with practically no debt in the company. Dixon has consistently demonstrated traits of superior execution, agility, cost efficiency and working capital management, pre-requisites for an EMS player through (1) deep understanding and expertise in electronics manufacturing; (2) deep backward integration to provide the lowest BOM costs; (3) state of the art R&D centres; (4) institutionalised processes; and (5) a world-class manufacturing set-up (MES and ISO certifications).

- **Championing Atmanirbhar Bharat:** Dixon has been an early flagbearer of the government's Atmanirbhar Bharat initiative. Dixon is a participant in five of the government's PLI schemes comprising 38% of the total approved financial outlay of over INR 1.9trn. Moreover, it was the first company to cross the capex and revenue threshold for mobile PLI and amongst the first to receive PLI disbursements. Over the years, in all categories it has been present in, Dixon has scaled up its manufacturing capacity and, in most cases, (except lighting), they are 3x-4x of their competition in size. The scale along with backward integration helps them deliver the lowest BOM to their customers.

Exhibit 29: Dixon's participation in govt's PLI schemes

Sectors	Financial outlay (INR bn)
Mobile Manufacturing & Specified electronic components*	386
Automobiles & Auto Components	259
High Efficiency Solar PV Modules	240
Advance chemistry cell ACC battery	181
IT Hardware*	170
Pharmaceutical drugs	150
Telecom & Networking Products*	122
Food Products	109
Textile Products	107
Critical key starting materials/ drugs intermediaries, APIs	69
Speciality Steel	63
White Goods (ACs & LED)*	62
Manufacturing of medical devices	34
Drone and Drone components	1
Total	**1955**
Dixon Participation	**38%**

Source: HSIE Research *Dixon Participation

Exhibit 30: Sustained ramp-up in capacities

Capacity (mn units)	FY18	FY19	FY20	FY21	FY22	FY23
Consumer Electronics						
LED TV	1.9	3.4	3.6	4.4	5.5	6.0
Lighting Products						
LED Lights	168	216	240	300	300	300
Downlighters	2	4	6	18	18	18
Batten	4	5	24	50	50	50
Home Appliances						
SAWM	0.8	1.2	1.2	1.2	1.8	2.4
FAWM				0.6	0.6	0.6
Refrigerator						1.2
Mobile & EMS						
Mobile Phones - Smartphone					15.0	30.0
Mobile Phones - Feature phone					30.0	50.0
STB					6.0	8.0
IT Hardware						0.6
Telecom						4.0
Wearables and Hearables						36.0
Security System	**3.8**	**10.2**	**10.2**	**10.2**	**10.2**	**14.8**

Source: Company, HSIE Research

- **Focus on backward integration:** After achieving scale in each segment, Dixon has always endeavoured to backward integrate its operations to gain greater control of the manufacturing process, quality and benefits of cost efficiencies, thereby improving margins. This not only helps to cater to customer needs promptly but also enhances customer stickiness, given its ability to offer cost-competitive one-stop-shop solutions.

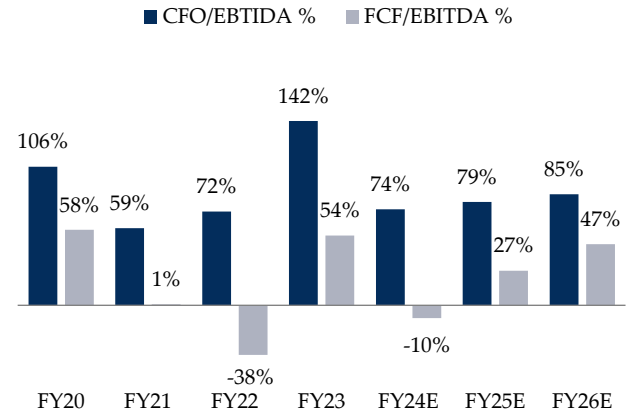
Exhibit 31: Dixon's backward-integration initiatives

Consumer Electronics	Lighting	Home Appliances	Mobile & EMS	Security Services	Wearables & Hearables
Injection moulding and plastic processing	Assemblies of LED drivers and LED engines	Plastic moulding	LDA assembly line	Moulding	Backward integration in SMT lines
Backward integration in SMT lines	PCB assembly	Sheet metal		Power supplies	Polymer processing
Panel assembly	Wire-wound inductors				
Manufacturing LED bars	Mechanical housing				
PCB assembly					

Source: Company; HSIE Research

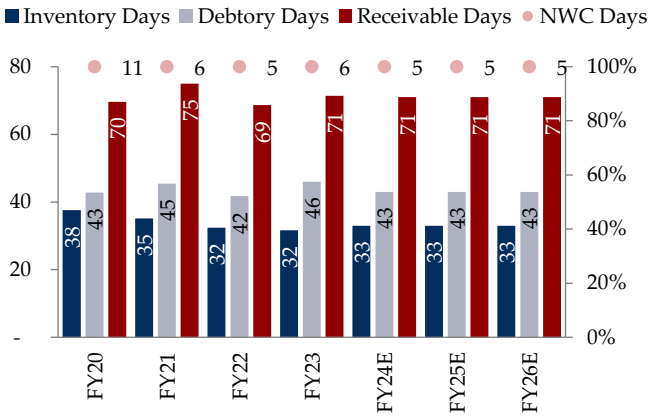
- **Prudent capital allocation policy is a key tenet:** Dixon has always emphasized a disciplined capital allocation policy. As a guiding principle, any capex commitments on new a project/backward integration project should have a target EBITDA payback period of not more than 4.5 years/2 years along with pre-tax ROCE of 30%+ and post-tax ROE of 20%+. On the back of efficient working capital management and utilization of assets, Dixon's strong CFO generation has enabled it to fund its capex requirement through internal accruals.

Exhibit 32: Strong cash flow conversion



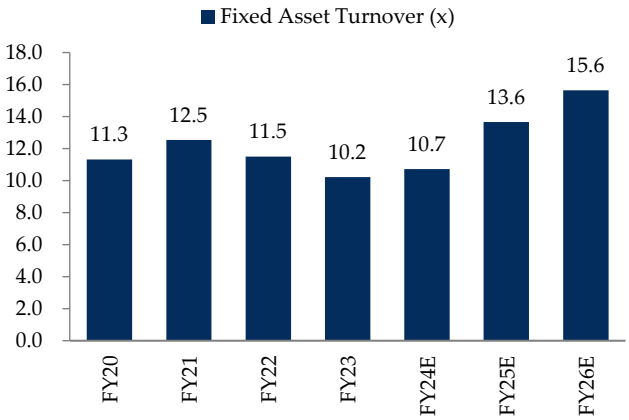
Source: Company, HSIE Research

Exhibit 33: Efficient working capital management



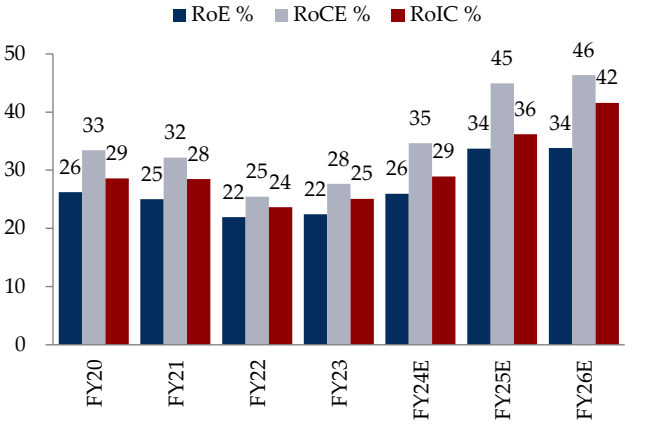
Source: Company, HSIE Research

Exhibit 34: High utilization of assets



Source: Company, HSIE Research

Exhibit 35: Strong return ratios



Source: Company, HSIE Research

- **Experienced management team:** Dixon's senior management team comprises professionals who possess extensive industry and management experience. This has led to having a specialised understanding of the complexities involved in the electronic manufacturing services industry in India and its processes. Dixon's growth can also be attributable to the strong management culture fostered by an entrepreneurial spirit, with each product vertical being managed by experienced and hands-on vertical heads having in-depth knowledge of the industry. Dixon's ability to retain a talented pool of employees is backed by the issuance of ESOPs from time to time.

Name	Role	Experience (in years)	Comments
Sunil Vachani	Executive Chairman Founder & Promoter	30+	✓ Active role in various Industry and Government bodies related to Electronics industry. Has strong influence in Government policy making. ✓ Co-Chairman of Confederation of Indian Industry; VP of CEAMA & headed ESCPC. ✓ Honoured as "Man of Electronics" by CEAMA in 2015. ✓ He has been conferred with ELCINA's Special Jury Award for "Electronics Man of the Year" for FY21. ✓ Has also been bestowed with prestigious 'EY Entrepreneur of the Year 2021' award. ✓ Business Administration from American College in London
Atul B Lall	Vice Chairman & Managing Director	30+	✓ Responsible for overall business operations of the Dixon group. ✓ Vice President of ELCINA. ✓ Served as a representative of ELCINA on the Committee for reliability of Electronic and Electrical Components and Equipment. ✓ Served as a member of Technical Evaluation Committee for EMS under M-SIPS constituted by DeitY. ✓ He has been conferred with the man of electronics by CEAMA for 2022. ✓ Masters in management from BITS Pilani
Saurabh Gupta	Group CFO	20+	✓ Prior experience with PVR Ltd, Unitech, McKinsey ✓ CA, CS, MBA (MDI Gurgaon)
Abhijit Kotnis	COO – Television & Refrigerator	33+	✓ Experience across Manufacturing, Technology, Business Development and Sourcing. ✓ Associated with Videocon Group for three decades in various leadership roles. ✓ MBA, B.E in Electronics & communication, Exec management program (IIM-A)
Amit Mittal	Senior VP – Lighting	28+	✓ Experience in manufacturing operations in different industries most notably with Philips. ✓ Graduate in engineering from Punjab Engineering College, Chandigarh.
Pankaj Sharma	COO – Mobile & Security System, Hearable/Wearable	32+	✓ Experience in factory operations, manufacturing, supply chain, global sourcing and business development. ✓ Formerly worked with Samsung, Besta Vision Electronics, Bigesto Foods.
Rajeev Lonial	COO – Washing Machine	37+	✓ Experience in Plastics Mouldings & Consumer Electronics Companies. ✓ Post Graduate Diploma in Plastic Processing Technology from CIPET Chennai.
Kamlesh Kumar Mishra	President – Mobiles	30+	✓ Experience in production, marketing, finance and quality, implementing, business strategies. ✓ Formally he worked with Samsung & Videocon. ✓ Bachelor's Degree in Electronics and Telecommunication.
Sukhvinder Kumar	CEO – DEAPL	27+	✓ Experience in the field of electronics as well as managing various business operations. ✓ Engineering degree in electronics & AMP from IIM Bangalore.
Ashish Kumar	Chief Legal Counsel & Group Company Secretary	30+	✓ 20+ years of national and international regulatory and compliance experience. ✓ Prior experience with DLF Universal, Damas International, Tecom Investments FZ LLC & Narayana Hrudayalaya. ✓ FCS, LLB & Executive programme in Business Management from IIM, Calcutta
Arjun Singh	CHRO	20+	✓ Extensive experience across varied HR functions in manufacturing, pharmaceuticals, automobile and communications sectors. ✓ Prior experience with CEAT Tyers (VP & Head Corporate HR), Glenmark Pharmaceuticals (VP & Global Head HR- R&D), Tata Sons and Tata Communications ✓ Attained his PhD in December 2022 and PG Diploma in Personnel Management from Xavier Institute of Social Service.

Financials and valuation

Revenue to grow at 46% CAGR over FY23-26E

We expect revenue to grow at a CAGR of 46% over FY23-26E led by 75/31/21% CAGR in Mobile & EMS/Home Appliances and Security Systems. Consumer Electronics and Lighting products could grow at 5/7% CAGR over the same period.

- **Mobile & EMS:** This segment will be the key growth driver as Dixon continues to scale up its operations in all key verticals (Mobile, IT Hardware and Telecom) which are seeing tailwinds in the form of the government's PLI scheme. Even amongst this, Mobile will be the key driver, given (1) the ramp-up of volumes with existing customers (Motorola, Xiaomi, Itel) and (2) new customer acquisitions. IT Hardware will see the ramp-up of Acer volumes and the commencement of the Lenovo tie-up. We expect Mobiles & EMS revenue to grow at 75% over FY23-26E.
- **Consumer Electronics:** With the LED TV industry witnessing some demand headwinds, growth is expected to be moderate in the near term. Dixon will be focusing on rolling out its Android TV and Tinzen OS-based offerings, thereby increasing its ODM mix. Additionally, they will look to ramp up commercial displays used in public advertisement and information displays and Interactive boards for use in educational institutes and offices. We expect Consumer Electronics revenue to grow at 5% over FY23-26E.
- **Home Appliances:** We expect Home Appliances revenue to grow at 31% CAGR over FY23-26E, led by (1) increasing wallet share within existing customers; (2) customer addition (especially in FAWM and Refrigerators); and (3) commencement of commercial production of refrigerators.
- **Lighting Products:** Dixon has launched ceiling lights, downlighters, rope and strip lighting to reduce its dependence on LED bulbs (which is currently the largest contributor). Moreover, Dixon is working on entering the professional segment with the launch of street and industrial lighting slated for launch in early FY25. FY24 has been impacted by (1) price erosion (18-20%) due to technology change; and (2) a declining trend in LED bulbs which is the largest contributor to revenues. We expect lighting products revenue to grow by 7% over FY23-26E.
- **Security Systems:** We expect Security Systems revenue to grow at 21% CAGR over FY23-26E, led by (1) a ramp-up of the new Kopparthi facility and (2) a healthy order book.

Exhibit 36: Key Revenue assumptions

Year End (March)	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
Revenue (INR mn)							
Consumer Electronics	20,952	38,560	51,695	42,780	42,432	45,447	49,602
Lighting Products	11,397	11,037	12,841	10,550	7,802	11,059	12,972
Home Appliances	3,963	4,312	7,088	11,430	12,648	21,217	25,980
Mobile & EMS	5,369	8,398	31,383	52,240	1,11,327	1,96,365	2,80,322
Security Systems	2,164	2,176	3,964	4,920	6,849	7,684	8,622
Total	**44,001**	**64,482**	**1,06,971**	**1,21,920**	**1,81,057**	**2,81,772**	**3,77,498**
Revenue Growth %							
Consumer Electronics	76	84	34	-17	-1	7	9
Lighting Products	24	-3	16	-18	-26	42	17
Home Appliances	6	9	64	61	11	68	22
Mobile & EMS	51	56	274	66	113	76	43
Security Systems	93	1	82	24	39	12	12
Total	**47**	**47**	**66**	**14**	**49**	**56**	**34**

Source: Company, HSIE Research

EBITDA and PAT to grow at 43/53% CAGR over FY23-26E

We estimate EBITDA will grow at a CAGR of 43% over FY23-26E, led by higher growth in the Mobile & EMS segment. We expect margins to remain stable given (1) a higher prescriptive business mix; (2) an increasing share of ODM in consumer electronics; (3) backward integration initiatives; and (4) operating leverage. We estimate PBT will grow by 52%, aided by rising other income (disbursement of PLI). PAT could grow at a 53% CAGR.

Exhibit 37: Key EBITDA assumptions

Year End (March)	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
EBITDA (INR mn)							
Consumer Electronics	504	1,038	1,246	1,310	1,447	1,591	1,860
Lighting Products	977	974	881	910	585	857	1,005
Home Appliances	461	397	541	1,090	1,391	2,387	2,923
Mobile & EMS	191	396	971	1,670	3,562	6,284	9,110
Security Systems	72	61	152	148	144	173	216
Total	**2,231**	**2,866**	**3,791**	**5,128**	**7,130**	**11,291**	**15,114**
EBITDAM %							
Consumer Electronics	2.4	2.7	2.4	3.1	3.4	3.5	3.8
Lighting Products	8.6	8.8	6.9	8.6	7.5	7.8	7.8
Home Appliances	11.6	9.2	7.6	9.5	11.0	11.3	11.3
Mobile & EMS	3.6	4.7	3.1	3.2	3.2	3.2	3.3
Security Systems	3.3	2.8	3.8	3.0	2.1	2.3	2.5
Total	**5.1**	**4.4**	**3.5**	**4.2**	**3.9**	**4.0**	**4.0**
EBITDA growth %							
Consumer Electronics	102	106	20	5	10	10	17
Lighting Products	48	0	-10	3	-36	46	17
Home Appliances	25	-14	36	101	28	72	22
Mobile & EMS	157	107	145	72	113	76	45
Security Systems	498	-15	147	-3	-3	20	25
Total	**65**	**28**	**32**	**35**	**39**	**58**	**34**

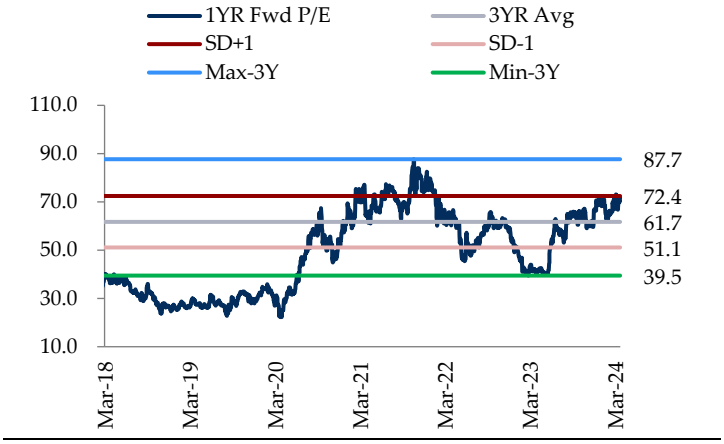
Source: Company, HSIE Research

Valuation

Superior execution, agility, cost efficiency and working capital management, prerequisites for an EMS player, have been the hallmark of Dixon's journey so far. Since its IPO in 2017, Dixon has exhibited superior execution capabilities with its revenue/EBITDA/PAT having grown by 4.3/4.6/4.2x with an average RoE/RoCE of 23/30%. During this period, Dixon has incurred a cumulative capex of INR 13bn which was all funded through internal accruals (CFO: INR 15bn) resulting in a lower cash balance and average RoIC of 25%. Dixon has been championing the government's Atmanirbhar Bharat initiative and is a participant in five of the government's PLI schemes comprising 38% of the total approved financial outlay. We estimate revenue/EBITDA/PAT will grow at 46/43/53% over FY23-26E with 30%+ RoE and 40%+ RoCE, led by (1) increasing scale of operations (especially in mobile and EMS segment); (2) integrated manufacturing facilities; (3) frugal cost structure; (4) strong and diverse client base; (5) ability to seed and scale up new segments; and (6) experienced leadership team.

We initiate coverage on Dixon with an ADD rating and value the stock at 50x FY26 earnings to arrive at a TP of INR7,700. While the current valuation of 64x/47x FY25E/FY26E earnings probably looks steep, it does not fully appreciate the underlying growth potential, in our view. We evaluate the reverse DCF to understand the underlying growth being priced over the next decade. Basis our analysis (WACC: 11.5%; terminal growth rate: 5%), CMP implies revenue/EBIT CAGR of 26/27% over the next decade, which in our view, looks achievable given a long runway for growth with India's EMS industry being at an inflection point. We note that Hon Hai (Foxconn) reported a revenue/EBITDA/PAT CAGR of 23/16/15% over CY2000-2022 respectively (31/23/21% over CY2000-2015) with cumulative OCF/NPAT at 120%, which displays a strong trait of EMS players' ability to maintain NWC prudently despite such rapid growth.

Exhibit 38: 1-year forward P/E chart



Source: Bloomberg, HSIE Research

Exhibit 39: 1-year forward EV/EBITDA chart

Source: Bloomberg, HSIE Research

The key risk to the call:

- Competition from global EMS companies setting up shop in India.
- In-house manufacturing by established brands.
- Subdued demand environment can lead to delay in orders from clients.
- Change in duty structure.

Annexure

Board of Directors

Name		Management Role
Family Representation on Board of Directors		
Sunil Vachani	Executive Chairman	Yes
Other Board of Directors		
Atul B Lall	Vice Chairman and Managing Director	Yes
Manoj Maheshwari	Independent Director	
Poornima Shenoy	Independent Director	
Manuji Zarabi	Independent Director	
Keng Tsung Kuo	Independent Director	
Dr Rakesh Mohan	Independent Director	

Auditors list

Name	
S.N Dhawan & Co LLP	Yes
Ernst & Young LLP	Internal Auditor
Protiviti India Member Pvt Ltd (Mobile Division)	Internal Auditor
Satija & Co	Cost Auditor
M/s Shirin Bhatt & Associates	Secretarial Auditors

Financials

Consolidated P&L

Year End (March) - INR mn	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
Net Revenues	**29,845**	**44,001**	**64,482**	**1,06,971**	**1,21,920**	**1,81,057**	**2,81,772**	**3,77,498**
Growth (%)	5.0	47.4	46.5	65.9	14.0	48.5	55.6	34.0
Material Expenses	26,093	38,602	57,697	97,792	1,10,207	1,64,309	2,55,004	3,41,636
Employee Expense	839	1,180	1,371	1,978	2,517	3,440	5,354	7,172
Other Expenses	1,565	1,989	2,548	3,409	4,069	6,178	10,123	13,576
EBITDA	**1,349**	**2,231**	**2,866**	**3,791**	**5,128**	**7,130**	**11,291**	**15,114**
EBITDA Growth (%)	20.4	**65.4**	**28.5**	**32.3**	**35.3**	**39.0**	**58.4**	**33.9**
EBITDA Margin (%)	**4.5**	**5.1**	**4.4**	**3.5**	**4.2**	**3.9**	**4.0**	**4.0**
Depreciation	217	365	437	840	1,146	1,542	1,975	2,437
EBIT	**1,132**	**1,865**	**2,429**	**2,952**	**3,981**	**5,587**	**9,316**	**12,678**
Other Income (Including EO Items)	56	52	16	38	56	87	123	161
Interest	250	350	274	442	606	726	728	745
PBT	**938**	**1,568**	**2,170**	**2,548**	**3,432**	**4,949**	**8,711**	**12,093**
Total Tax	305	363	572	644	897	1,188	2,134	2,963
Profit before JV/Associates/NCI	**634**	**1,205**	**1,598**	**1,904**	**2,535**	**3,761**	**6,577**	**9,130**
Share of JV/Associates	-	-	-	-1	16	100	110	121
Non-controlling Interest	-	-	-	2	-4	60	69	79
RPAT	**634**	**1,205**	**1,598**	**1,902**	**2,555**	**3,801**	**6,618**	**9,172**
Adjusted PAT	**634**	**1,205**	**1,598**	**1,902**	**2,555**	**3,801**	**6,618**	**9,172**
APAT Growth (%)	4.0	**90.2**	**32.6**	**19.0**	**34.4**	**48.8**	**74.1**	**38.6**
EPS	**11.2**	**20.8**	**27.3**	**32.0**	**42.9**	**63.8**	**111.1**	**154.0**
EPS Growth (%)	4.0	**86.2**	**31.0**	**17.5**	**33.9**	**48.8**	**74.1**	**38.6**

Consolidated Balance Sheet

Year End (March) - INR mn	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
SOURCES OF FUNDS								
Share Capital - Equity	113	116	117	119	119	119	119	119
Other Equity	3,669	5,298	7,256	9,849	12,730	16,352	22,673	31,368
Total Shareholders Funds	**3,782**	**5,413**	**7,373**	**9,968**	**12,849**	**16,471**	**22,792**	**31,487**
NCI	-	-	-	6	(3)	57	126	206
Long Term Debt	112	149	848	3,377	1,773	1,623	1,123	-
Short Term Debt	1,299	718	713	1,203	53	-	-	-
Total Debt	**1,412**	**867**	**1,561**	**4,580**	**1,826**	**1,623**	**1,123**	**-**
Net Deferred Taxes	144	148	184	201	224	249	292	353
Other Non Current Liabilities	1,630	959	1,393	2,265	2,862	3,609	4,686	5,849
TOTAL SOURCES OF FUNDS	**6,968**	**7,386**	**10,510**	**17,019**	**17,758**	**22,009**	**29,019**	**37,894**
APPLICATION OF FUNDS								
Net Block	**2,362**	**3,114**	**4,059**	**7,583**	**9,425**	**13,161**	**15,372**	**17,036**
Goodwill	**-**	**82**	**82**	**303**	**303**	**303**	**303**	**303**
CWIP	188	96	724	224	1,197	1,000	1,000	1,000
Intangible assets	47	44	40	188	224	228	231	232
Right of Use Assets	-	902	1,322	1,959	2,484	3,347	5,121	6,834
Non Current Investments	-	-	-	59	142	142	142	142
Other Non Current Assets	1,618	271	320	986	1,627	1,466	1,484	1,504
Total Non-current Assets	**4,215**	**4,508**	**6,546**	**11,302**	**15,402**	**19,646**	**23,652**	**27,050**
Current-Investments	76	-	953	1,350	300	-	-	-
Inventories	4,084	4,978	7,433	11,557	9,579	16,370	25,475	34,130
Debtors	5,167	5,151	10,891	13,564	17,155	21,330	33,195	44,472
Cash & Equivalents	367	1,002	689	1,823	2,292	811	2,299	7,056
Other Current Assets	999	1,331	1,946	3,176	2,068	4,536	5,645	6,804
Total Current Assets	**10,694**	**12,462**	**21,911**	**31,470**	**31,393**	**43,047**	**66,614**	**92,463**
Creditors	7,397	9,391	17,097	23,137	24,519	35,219	54,810	73,431
Other Current Liabilities & Provns	544	193	850	2,615	4,517	5,464	6,437	8,187
Total Current Liabilities	**7,940**	**9,583**	**17,946**	**25,752**	**29,036**	**40,684**	**61,248**	**81,618**
Net Current Assets	**2,753**	**2,878**	**3,964**	**5,718**	**2,357**	**2,363**	**5,367**	**10,844**
TOTAL APPLICATION OF FUNDS	**6,968**	**7,386**	**10,510**	**17,020**	**17,758**	**22,009**	**29,019**	**37,894**

Consolidated Cash Flow

Year End (March) - INR mn	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
Reported PBT	938	1,568	2,170	2,547	3,448	5,049	8,821	12,214
Non-operating & EO Items	22	97	111	80	114	915	1,090	1,192
Interest Expenses	250	350	274	442	606	726	728	745
Depreciation	217	365	437	840	1,146	1,542	1,975	2,437
Working Capital Change	(1,275)	423	(743)	(641)	2,764	(1,787)	(1,516)	(721)
Tax Paid	(183)	(429)	(549)	(540)	(820)	(1,188)	(2,134)	(2,963)
OPERATING CASH FLOW (a)	**(31)**	**2,373**	**1,701**	**2,728**	**7,258**	**5,256**	**8,964**	**12,905**
Capex	(790)	(1,081)	(1,680)	(4,174)	(4,502)	(5,947)	(5,963)	(5,815)
Free Cash Flow (FCF)	*(820)*	*1,293*	*22*	*(1,446)*	*2,755*	*(691)*	*3,001*	*7,089*
Investments	35	(118)	(954)	(498)	929	300	-	-
Non-operating Income	25	28	5	7	13	18	12	12
Others	92	178	(25)	21	4	-	-	-
INVESTING CASH FLOW (b)	**(638)**	**(993)**	**(2,654)**	**(4,645)**	**(3,556)**	**(5,629)**	**(5,951)**	**(5,803)**
Debt Issuance/(Repaid)	964	(570)	688	3,026	(2,776)	(203)	(500)	(1,123)
Interest Expenses	(251)	(377)	(322)	(567)	(737)	(726)	(728)	(745)
FCFE	**394**	**1,100**	**1,032**	**2,147**	**717**	**(169)**	**3,229**	**6,712**
Share Capital Issuance	-	457	269	642	336	-	-	-
Dividend	(27)	(83)	-	(59)	(119)	(179)	(298)	(476)
Others	-	-	-	-	-	-	-	-
FINANCING CASH FLOW (c)	**686**	**(574)**	**635**	**3,043**	**(3,296)**	**(1,108)**	**(1,526)**	**(2,345)**
NET CASH FLOW (a+b+c)	**18**	**807**	**(318)**	**1,126**	**406**	**(1,480)**	**1,488**	**4,757**
EO Items, Others	-	-	-	-	-	-	-	-
Closing Cash & Equivalents	144	957	638	1,765	2,170	690	2,178	6,934

Ratios

Year End (March)	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
PROFITABILITY (%)								
GPM	12.6	12.3	10.5	8.6	9.6	9.3	9.5	9.5
EBITDA Margin (%)	4.5	5.1	4.4	3.5	4.2	3.9	4.0	4.0
EBIT Margin	3.8	4.2	3.8	2.8	3.3	3.1	3.3	3.4
PBT Margin	3.1	3.6	3.4	2.4	2.8	2.7	3.1	3.2
APAT Margin	2.1	2.7	2.5	1.8	2.1	2.1	2.3	2.4
RoE	18.3	26.2	25.0	21.9	22.4	25.9	33.7	33.8
RoIC (or Core RoCE)	19.7	28.6	28.5	23.6	25.1	28.9	36.2	41.6
RoCE	27.2	33.4	32.1	25.5	27.6	34.6	44.9	46.3
EFFICIENCY								
Tax Rate (%)	32.5	23.1	26.4	25.3	26.1	24.0	24.5	24.5
Fixed Asset Turnover (x)	12.3	13.1	14.3	14.8	11.5	12.6	15.0	16.9
Inventory (days)	45	38	35	32	32	33	33	33
Debtors (days)	50	43	45	42	46	43	43	43
Other Current Assets (days)	12	10	9	9	8	9	7	7
Payables (days)	77	70	75	69	71	71	71	71
Other Current Liab & Provns (days)	10	3	3	6	11	11	8	8
Cash Conversion Cycle (days)	20	17	12	8	3	3	4	4
Net D/E (x)	0.3	(0.0)	0.1	0.3	(0.0)	0.0	(0.1)	(0.2)
Interest Coverage (x)	4.5	5.3	8.9	6.7	6.6	7.7	12.8	17.0
PER SHARE DATA (Rs)								
EPS	11.2	20.8	27.3	32.0	42.9	63.8	111.1	154.0
CEPS	14.7	27.1	34.7	46.2	62.1	89.7	144.3	194.9
Dividend	0.4	0.8	1.0	2.0	3.0	5.0	8.0	11.0
Book Value	65.4	93.6	125.9	168.0	215.7	276.5	382.7	528.7
VALUATION								
P/E (x)	640.0	343.8	262.5	223.5	166.9	112.2	64.4	46.5
P/BV (x)	109.5	76.5	56.9	42.6	33.2	25.9	18.7	13.5
EV/EBITDA (x)	307.9	185.7	146.3	112.5	83.0	59.9	37.7	27.8
EV/Revenues (x)	13.9	9.4	6.5	4.0	3.5	2.4	1.5	1.1
OCF/EV (%)	(0.0)	0.6	0.4	0.6	1.7	1.2	2.1	3.1
FCF/EV (%)	(0.2)	0.3	0.0	(0.3)	0.6	(0.2)	0.7	1.7
FCFE/Mkt Cap (%)	0.1	0.3	0.2	0.5	0.2	(0.0)	0.8	1.6
Dividend Yield (%)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2

INSTITUTIONAL RESEARCH

Kaynes Technology

CMP bakes in all positives; downgrade to ADD

Kaynes is likely to be a key beneficiary of the government's thrust on electronics manufacturing, given its well-diversified business model catering to various end-use industry segments. Moreover, given a higher skew towards low-volume high-mix segments and box-build (9MFY24: 39%), Kaynes's EBITDAM is the highest amongst peers. Besides, Kaynes has also forayed into OSAT (Phase 1: INR 20bn) and bare PCB manufacturing (Phase 1 – INR 7.3bn), further backward integrating into the EMS value chain. Whilst both these businesses can be margin accretive, their execution remains a key monitorable.

We estimate Kaynes's revenue/EBITDA/PAT will grow at a CAGR of 47/46/53% over FY23-26E, largely led by the traditional EMS business as OSAT and bare PCB won't see any meaningful contribution before FY27-28. We value the traditional business at 45x P/E on FY26 EPS and add INR 405/180 per share for OSAT/bare PCB (discounting FY30 earnings by 13%) to arrive at a TP of INR 3,000. The current valuation of 52x FY26 earnings is baking in all the positives with little room for error. We downgrade our rating from BUY to ADD.

- **Well-placed to ride the rising EMS wave:** Kaynes is one of the leading domestic EMS players with a presence across various end-use industry segments and low client/supplier concentration. It is focusing on emerging segments like (1) Electric Vehicles (EV) (both 4W & 2W), EV components and EV charging infrastructure; (2) Railways - train collision avoidance systems; (3) High-performance computing servers & hardware; and (4) aerospace/ outer space electronics. Moreover, it is looking to further increase box-build and ODM capabilities. With India's EMS space seemingly at an inflection point, Kaynes is likely to be a key beneficiary and has already seen its order book swell by 10x since FY20.
- **Backwards integrating into OSAT and bare PCB manufacturing:** Kaynes has announced setting up of an OSAT facility (Phase 1: INR 20bn; Total: INR 28.5bn) and bare PCB facility (Phase 1: INR 7.3bn; Total: INR 13.9bn). This will be funded through additional fundraising (QIP of INR 14bn in Dec'23), using government incentives (50/25% central/state subsidy for OSAT) and internal accruals. Within OSAT, Kaynes is going to start with certain packages which are very popularly used in most industrial and critical applications before moving on to advanced packaging and component semiconductors. Even in bare PCB, the focus is on manufacturing multilayer, advanced HDI PCBs and other hi-tech and standard types. Both these businesses are capital-intensive with low asset turns (1-1.5x) but higher margins (OSAT 15%+; PCB 20%+). Execution of both these forays remains key monitorable.
- **Valuation and outlook:** We estimate revenue/PAT to grow at 47/53% over FY23-26E with average RoE/RoCE (ex QIP) of 23%/28% by FY26. We value the EMS business at 45x P/E on FY26 EPS and add INR 405/180 per share for OSAT/bare PCB (discounting FY30 earnings by 13%) to arrive at a TP of INR 3,000. The current valuation of 52x FY26 earnings is baking in all the positives with little room for error. We downgrade our rating from BUY to ADD.

Financial summary

YE Mar (INR mn)	FY21	FY22	FY23	FY24E	FY25E	FY26E
Net Sales	4,206	7,062	11,261	17,749	25,667	35,865
EBITDA	409	937	1,683	2,441	3,582	5,186
APAT	94	414	950	1,557	2,291	3,430
Diluted EPS (INR)	13.8	9.0	16.3	24.4	35.8	53.7
P/E (x)	202.8	311.5	171.1	114.8	78.0	52.1
EV / EBITDA (x)	49.6	139.4	94.5	66.7	45.8	31.7
RoE* (%)	7.8	24.3	16.4	15.0	18.6	22.6

Source: Company, HSIE Research *RoE for FY24-26 is ex of QIP fund raise of INR 14bn

ADD

CMP *(as on 22Mar 2024)*	INR 2,797
Target Price	INR 3,000
NIFTY	22,097

KEY CHANGES	OLD	NEW
Rating	BUY	ADD
Price Target	INR 2,850	INR 3,000
	FY25E	FY26E
EPS %	-6%	+1%

KEY STOCK DATA	
Bloomberg code	KAYNES IN
No. of Shares (mn)	64
MCap (INR bn) / ($ mn)	180/2,205
6m avg traded value (INR mn)	531
52 Week high / low	INR 3,249/932

STOCK PERFORMANCE (%)	3M	6M	12M
Absolute (%)	7.1	33.2	198.8
Relative (%)	5.0	23.2	176.6

SHAREHOLDING PATTERN (%)	Sep-23	Dec-23
Promoters	63.57	57.83
FIs & Local MFs	15.58	19.04
FPIs	9.90	12.71
Public & Others	10.94	10.41
Pledged Shares	0.00	0.00

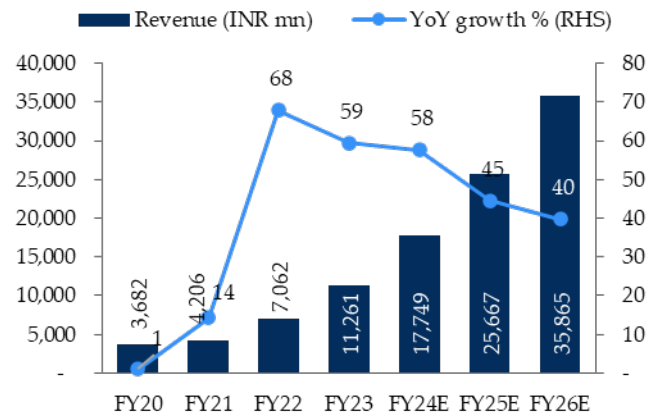
Source : BSE

Pledged shares as % of total shares

Paarth Gala
paarth.gala@hdfcsec.com
+91-22-6171-7336

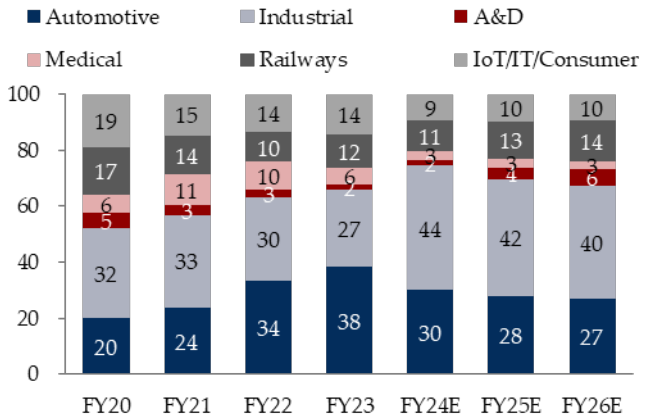
Story in charts

Exhibit 1: Revenue to grow at 47% CAGR over FY23-26E



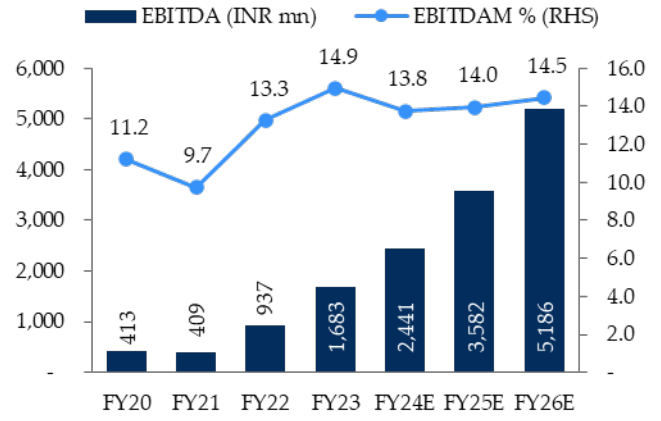
Source: Company, HSIE Research

Exhibit 2: Revenue Mix



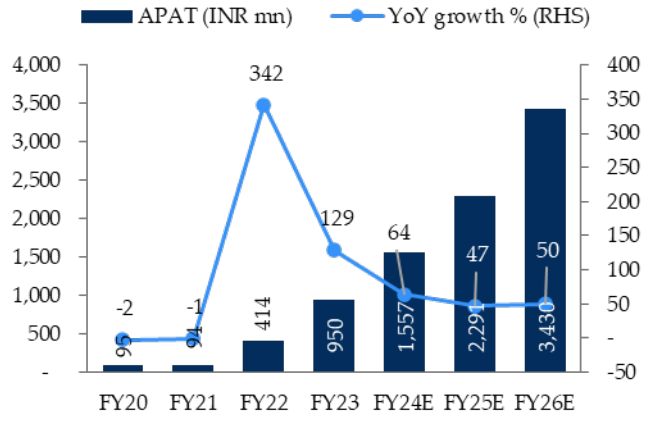
Source: Company, HSIE Research

Exhibit 3: EBITDA to grow at 46% CAGR over FY23-26E



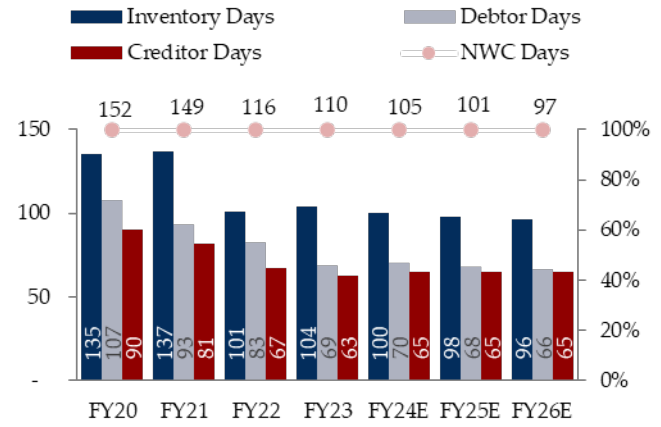
Source: Company, HSIE Research

Exhibit 4: PAT to grow at 53% CAGR over FY23-26E



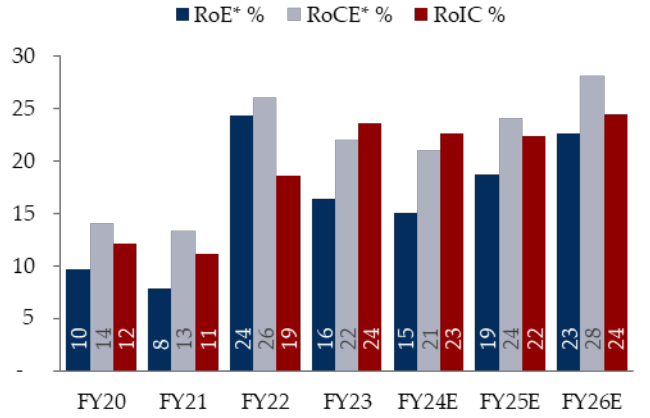
Source: Company, HSIE Research

Exhibit 5: Net working capital days to improve



Source: Company, HSIE Research

Exhibit 6: Return ratios to improve



Source: Company, HSIE Research *RoE/RoCE ex of QIP (FY24-26)

Exhibit 7: Change in estimates and rating; downgrade rating from BUY to ADD

Change in Estimates	Old			New			Change %		
Year End (March) - INR mn	FY24E	FY25E	FY26E	FY24E	FY25E	FY26E	FY24E	FY25E	FY26E
Revenue	16,790	23,954	32,452	17,749	25,667	35,865	5.7	7.2	10.5
EBITDA	2,561	3,593	4,868	2,441	3,582	5,186	-4.7	-0.3	6.5
EBITDAM %	15.3	15.0	15.0	13.8	14.0	14.5	-150bps	-104bps	-54bps
APAT	1,745	2,451	3,394	1,557	2,291	3,430	-10.8	-6.5	1.1
EPS (INR)	27.3	38.3	53.0	24.4	35.8	53.7	-10.6	-6.4	1.2
Rating	**BUY**			**ADD**					
Target Price (INR)	**2,850**			**3,000**					
Target P/E (x)	**45x (Dec-25)**			**45x FY26**					

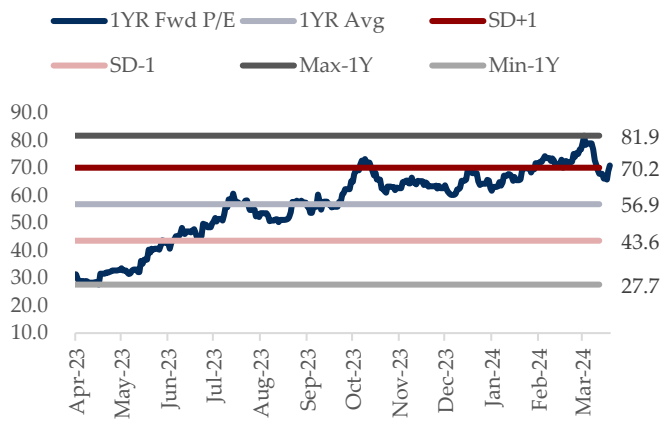
Source: Company; HSIE Research

Exhibit 8: Key Assumptions

Year End (March)	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
Revenue (INR mn)							
Automotive	747	1,004	2,370	4,322	5,338	7,207	9,729
Industrial	1,178	1,394	2,105	3,096	7,895	10,658	14,389
Aerospace, Defence, Outer-space & Nuclear	200	136	178	200	360	1,080	2,160
Medical	230	462	712	693	519	779	1,052
Railways	631	596	731	1,347	1,953	3,419	5,128
IoT/IT, Consumer & Others	696	615	967	1,603	1,683	2,525	3,408
Total	**3,682**	**4,206**	**7,062**	**11,261**	**17,749**	**25,667**	**35,865**
Revenue Growth %							
Automotive	4	34	136	82	24	35	35
Industrial	2	18	51	47	155	35	35
Aerospace, Defence, Outer-space & Nuclear	246	-32	31	13	80	200	100
Medical	48	101	54	-3	-25	50	35
Railways	-33	-6	23	84	45	75	50
IoT/IT, Consumer & Others	15	-12	57	66	5	50	35
Total	**1**	**14**	**68**	**59**	**58**	**45**	**40**
Revenue Mix %							
Automotive	20	24	34	38	30	28	27
Industrial	32	33	30	27	44	42	40
Aerospace, Defence, Outer-space & Nuclear	5	3	3	2	2	4	6
Medical	6	11	10	6	3	3	3
Railways	17	14	10	12	11	13	14
IoT/IT, Consumer & Others	19	15	14	14	9	10	10
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**

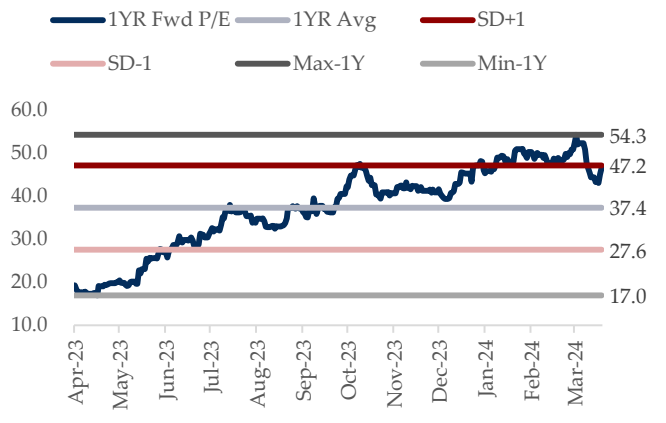
Source: Company, HSIE Research

Exhibit 9: Kaynes is trading at 71x 1-year forward P/E…



Source: Bloomberg, HSIE Research

Exhibit 10: … and 47x 1-year forward EV/EBITDA



Source: Company, HSIE Research

Financials

Consolidated P&L

Year End (March) - INR mn	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
Net Revenues	**3,682**	**4,206**	**7,062**	**11,261**	**17,749**	**25,667**	**35,865**
Growth (%)	1.1	14.2	67.9	59.4	57.6	44.6	39.7
Material Expenses	2,417	2,861	4,894	7,801	13,072	18,737	26,002
Employee Expense	424	459	602	771	985	1,386	1,937
Other Expenses	428	477	629	1,006	1,251	1,962	2,740
EBITDA	**413**	**409**	**937**	**1,683**	**2,441**	**3,582**	**5,186**
EBITDA Growth (%)	**17.9**	**(1.1)**	**129.1**	**79.7**	**45.0**	**46.7**	**44.8**
EBITDA Margin (%)	**11.2**	**9.7**	**13.3**	**14.9**	**13.8**	**14.0**	**14.5**
Depreciation	84	101	132	187	234	359	485
EBIT	**330**	**308**	**805**	**1,496**	**2,207**	**3,223**	**4,701**
Other Income (Including EO Items)	19	40	41	114	368	388	416
Interest	236	240	256	349	579	598	604
PBT	**113**	**109**	**590**	**1,260**	**1,997**	**3,014**	**4,513**
Total Tax	19	11	174	308	439	723	1,083
Profit before JV/Associates/NCI	**94**	**97**	**417**	**952**	**1,557**	**2,291**	**3,430**
Non-controlling Interest	-1	4	2	2	-	-	-
Exceptional Gain/ (loss)	-	-	-	-	-	-	-
RPAT	**95**	**94**	**414**	**950**	**1,557**	**2,291**	**3,430**
Adjusted PAT	**95**	**94**	**414**	**950**	**1,557**	**2,291**	**3,430**
APAT Growth (%)	**(2.3)**	**(1.0)**	**342.0**	**129.3**	**63.9**	**47.1**	**49.7**
EPS	**13.9**	**13.8**	**9.0**	**16.3**	**24.4**	**35.8**	**53.7**
EPS Growth (%)	**(2.3)**	**(1.0)**	**(34.9)**	**82.0**	**49.1**	**47.1**	**49.7**

Consolidated Balance Sheet

Year End (March) - INR mn	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
SOURCES OF FUNDS							
Share Capital - Equity	68	79	465	581	639	639	639
Other Equity	959	1,308	1,560	9,009	24,508	26,799	30,229
Total Shareholders Funds	**1,027**	**1,387**	**2,026**	**9,590**	**25,147**	**27,438**	**30,868**
NCI	5	9	11	13	13	13	13
Long Term Debt	98	171	293	150	155	97	47
Short Term Debt	1,340	1,224	1,403	1,209	2,307	2,823	3,228
Total Debt	**1,438**	**1,395**	**1,695**	**1,359**	**2,463**	**2,920**	**3,274**
Net Deferred Taxes	79	52	68	77	97	127	172
Other Non Current Liabilities	117	96	205	205	248	347	484
TOTAL SOURCES OF FUNDS	**2,667**	**2,939**	**4,005**	**11,244**	**27,969**	**30,845**	**34,812**
APPLICATION OF FUNDS							
Net Block	**502**	**571**	**640**	**902**	**2,566**	**4,079**	**5,249**
Goodwill	**23**	**23**	**23**	**23**	**23**	**23**	**23**
CWIP	119	126	83	293	250	250	250
Intangible assets	45	127	290	221	224	237	240
Right of Use Assets	86	79	181	171	189	274	382
Non Current Investments	16	17	15	33	33	33	33
Other Non Current Assets	84	59	129	236	335	339	343
Total Non-current Assets	**877**	**1,002**	**1,361**	**1,880**	**3,620**	**5,235**	**6,521**
Current-Investments	-	-	-	-	-	-	-
Inventories	1,511	1,639	2,264	4,132	4,863	6,891	9,433
Debtors	936	1,217	1,977	2,271	3,404	4,782	6,485
Cash & Equivalents	123	143	216	4,860	18,433	17,609	17,699
Other Current Assets	334	193	407	1,045	1,443	1,635	2,043
Total Current Assets	**2,905**	**3,192**	**4,864**	**12,308**	**28,142**	**30,917**	**35,660**
Creditors	921	954	1,641	2,229	3,161	4,571	6,387
Other Current Liabilities & Provns	193	300	578	714	633	736	983
Total Current Liabilities	**1,114**	**1,255**	**2,219**	**2,943**	**3,794**	**5,307**	**7,370**
Net Current Assets	**1,790**	**1,937**	**2,645**	**9,365**	**24,349**	**25,610**	**28,290**
TOTAL APPLICATION OF FUNDS	**2,667**	**2,939**	**4,005**	**11,244**	**27,969**	**30,845**	**34,812**

Consolidated Cash Flow

Year End (March) - INR mn	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
Reported PBT	113	109	590	1,260	1,997	3,014	4,513
Non-operating & EO Items	(6)	(7)	(11)	(84)	(311)	(131)	(62)
Interest Expenses	236	240	256	349	579	598	604
Depreciation	84	101	132	187	234	359	485
Working Capital Change	44	(137)	(742)	(1,626)	(1,412)	(2,084)	(2,591)
Tax Paid	(19)	(28)	(14)	(503)	(439)	(723)	(1,083)
OPERATING CASH FLOW (a)	**452**	**277**	**211**	**(416)**	**648**	**1,032**	**1,865**
Capex	(312)	(250)	(422)	(581)	(1,876)	(1,969)	(1,767)
Free Cash Flow (FCF)	*140*	*27*	*(211)*	*(997)*	*(1,228)*	*(938)*	*99*
Investments	205	2	(33)	(4,453)	-	500	-
Non-operating Income	8	7	11	98	276	255	240
INVESTING CASH FLOW (b)	**(99)**	**(241)**	**(445)**	**(4,937)**	**(1,600)**	**(1,214)**	**(1,527)**
Debt Issuance/(Repaid)	(118)	(44)	301	(336)	1,104	457	354
Interest Expenses	(236)	(240)	(256)	(349)	(579)	(598)	(604)
FCFE	258	224	345	(984)	454	117	1,057
Share Capital Issuance	-	270	228	6,229	14,000	-	-
Dividend	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-
FINANCING CASH FLOW (c)	**(354)**	**(13)**	**272**	**5,543**	**14,525**	**(141)**	**(249)**
NET CASH FLOW (a+b+c)	**(1)**	**23**	**38**	**191**	**13,573**	**(323)**	**89**
EO Items, Others	-	-	-	-	-	-	-
Closing Cash & Equivalents	7	30	69	259	13,832	13,509	13,598

Ratios

Year End (March)	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
PROFITABILITY (%)							
GPM	34.4	32.0	30.7	30.7	26.4	27.0	27.5
EBITDA Margin (%)	11.2	9.7	13.3	14.9	13.8	14.0	14.5
EBIT Margin	8.9	7.3	11.4	13.3	12.4	12.6	13.1
PBT Margin	3.1	2.6	8.4	11.2	11.2	11.7	12.6
APAT Margin	2.6	2.2	5.9	8.4	8.8	8.9	9.6
RoE*	9.7	7.8	24.3	16.4	15.0	18.6	22.6
RoIC (or Core RoCE)	12.1	11.1	18.5	23.5	22.6	22.3	24.5
RoCE*	14.1	13.3	26.0	21.9	21.0	24.1	28.0
EFFICIENCY							
Tax Rate (%)	17.1	10.5	29.4	24.5	22.0	24.0	24.0
Fixed Asset Turnover (x)	4.6	4.6	6.8	8.8	7.6	6.2	6.2
Inventory (days)	135	137	101	104	100	98	96
Debtors (days)	107	93	83	69	70	68	66
Other Current Assets (days)	28	23	16	24	30	23	21
Payables (days)	90	81	67	63	65	65	65
Other Current Liab & Provns (days)	17	21	23	21	13	10	10
Cash Conversion Cycle (days)	164	150	109	112	122	114	108
Net D/E (x)	1.3	0.9	0.7	(0.4)	(0.6)	(0.5)	(0.5)
Interest Coverage (x)	1.4	1.3	3.1	4.3	3.8	5.4	7.8
PER SHARE DATA (Rs)							
EPS	13.9	13.8	9.0	16.3	24.4	35.8	53.7
CEPS	26.3	28.6	11.8	19.6	28.0	41.4	61.2
Dividend	-	-	-	-	-	-	-
Book Value	151.0	203.9	43.9	164.9	393.4	429.3	482.9
VALUATION							
P/E (x)	200.7	202.8	311.5	171.1	114.8	78.0	52.1
P/BV (x)	18.5	13.7	63.7	17.0	7.1	6.5	5.8
EV/EBITDA (x)	49.2	49.6	139.4	94.5	66.7	45.8	31.7
EV/Revenues (x)	5.5	4.8	18.5	14.1	9.2	6.4	4.6
OCF/EV (%)	2.2	1.4	0.2	(0.3)	0.4	0.6	1.1
FCF/EV (%)	0.7	0.1	(0.2)	(0.6)	(0.8)	(0.6)	0.1
FCFE/Mkt Cap (%)	1.4	1.2	0.3	(0.6)	0.3	0.1	0.6
Dividend Yield (%)	-	-	-	-	-	-	-

*RoE/RoCE ex of QIP (FY24-26)

INSTITUTIONAL RESEARCH

Amber Enterprises

Expanding its wings

We initiate coverage on Amber with a BUY rating and a target price of INR 4,200. Amber, a dominant EMS player in the room AC (RAC) industry (value market share at c.29%), has evolved from being a pure-play RAC player to a comprehensive, backward integrated and diversified B2B solutions provider to the HVAC and electronics space. Over the past decade, Amber's revenue/PAT both have grown at 23% CAGR, led by (1) sustained market share gains in RAC; (2) integrated manufacturing facilities offering 65-70% of BoM to customers (increasing wallet share); and (3) diversification into electronics and mobility HVAC. In the wake of the changing RAC industry landscape (more in-sourcing from brands), Amber has proactively realigned its strategy by shifting focus towards the supply of components (market share up 450bps since FY21 despite falling CBU sales). Moreover, its presence in high-growth electronics (expanding user base) and railway mobility (increasing wallet share) segments through its acquired subsidiaries provides additional growth levers.

We estimate Amber's revenue/EBITDA/PAT will grow at a CAGR of 13/25/33% over FY23-26E. At CMP, the stock implies a revenue/EBIT CAGR of 13/19% over the next decade. We value the stock at 38x FY26 earnings to arrive at a target price of INR 4,200. Initiate coverage with a BUY rating.

- **Pivoting focus from RAC CBU to Components:** With brands expanding their in-souring capacities, Amber has proactively realigned its RAC strategy focusing on supply of components. Amber manufactures almost the entire range of products needed for RAC manufacturing (except compressors, wiring harness and packaging) catering to 65-70% of RAC's BoM. As a result, Amber will continue to be preferred choice for sourcing components to brands given the extensive range and close proximity to brand factories (overall value market share up 450bps over FY21 despite falling CBU sales).
- **Creating new levers for growth:** Over the past five years, Amber expanded its offering into non-RAC components and entered PCBA (IN JIN and EVER) and railway mobility (Sidwal) industry through acquisitions. In the electronics segment, focus is on expanding end-user industry. In addition to that, through acquisition of Ascent Circuits, Amber has further backward integrated into bare PCB manufacturing. For the mobility segment, focus remains on expanding product offerings (increasing BoM from 4-5% to 15%).
- **Valuation & outlook:** We estimate revenue/PAT will grow at 13/33% over FY23-26E and expect RoE/RoCE to improve to 15%/17% by FY26. Based on reverse DCF, at CMP the implied revenue/EBIT CAGR over the next decade is 13%/19%, which in our view, looks achievable given the long runway for growth across all segments. We value the stock at 38x FY26 earnings to arrive at a target price of INR 4,200. Initiate coverage with a BUY rating. **Key risks:** (1) Seasonality and general slowdown in consumption. (2) Further increase in in-sourcing by brands. (3) Any adverse change in government policies.

Financial summary

YE Mar (INR mn)	FY21	FY22	FY23	FY24E	FY25E	FY26E
Net Sales	30,305	42,064	69,271	70,126	85,613	1,00,961
EBITDA	2,203	2,754	4,179	4,727	6,398	8,074
APAT	816	1,092	1,572	1,246	2,535	3,726
Diluted EPS (INR)	24.2	32.4	46.7	37.0	75.2	110.6
P/E (x)	146.7	109.6	76.1	96.1	47.2	32.1
EV / EBITDA (x)	54.5	44.7	30.1	26.7	19.7	15.4
RoE (%)	6.0	6.5	8.6	6.3	11.7	15.1

Source: Company, HSIE Research

BUY

CMP *(as on 22 Mar2024)*	INR 3,552
Target Price	INR 4,200
NIFTY	22,097

KEY STOCK DATA	
Bloomberg code	AMBER IN
No. of Shares (mn)	34
MCap (INR bn) / ($ mn)	120/1,470
6m avg traded value (INR mn)	670
52 Week high / low	INR 4,615/1,732

STOCK PERFORMANCE (%)	3M	6M	12M
Absolute (%)	17.3	19.1	96.9
Relative (%)	15.2	9.1	70.7

SHAREHOLDING PATTERN (%)	Sep-23	Dec-23
Promoters	40.31	40.31
FIs & Local MFs	13.07	14.67
FPIs	29.69	28.29
Public & Others	16.93	16.73
Pledged Shares	0.00	0.00

Source : BSE

Pledged shares as % of total shares

Paarth Gala
paarth.gala@hdfcsec.com
+91-22-6171-7336

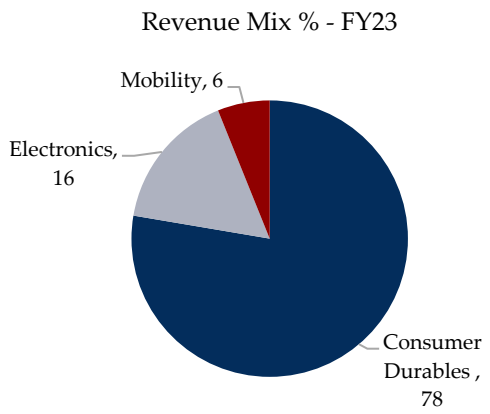
Amber Enterprises – Diversified B2B solutions provider

Incorporated in 1990, Amber Enterprises (Amber) is a renowned name in the HVAC industry for room and mobility. Over the years, it has expanded its operations to encompass a comprehensive range of products and services from Room Air Conditioners (RACs) to components spanning both RAC and non-RAC applications. It also provides cutting-edge HVAC solutions for diverse segments, including railways, metro systems, defence, buses, and commercial establishments.

- Amber is a market leader in the RAC OEM/ODM industry in India with a 29.5% share (RAC + components) of the overall market. It is positioned as a one-stop solutions provider with the ability to deliver 65-70% of the bill of material (ex-compressors and wiring harness) to a customer. It works with all major players in the RAC industry.
- Amber acquired IL JIN and EVER in 2018-2019, two electronics companies engaged in PCBA, looking at increasing mix of inverter RAC. Since the acquisition, these companies have broadened their range to other consumer durable segments, wearable and hearable, telecom sector, etc. IL JIN in Feb'24 acquired Ascent Circuits (PCB manufacturer), which deepened its backward integration capabilities.
- Amber's acquisition of Sidwal in 2020 provided access to the mobility-HVAC industry such as railways, defence, busses, metros, telecom and commercial AC. Sidwal has entered into a strategic partnership (JV) with Titagarh Rail Systems to enter the train components and subsystem business in India and Italy.
- Amber operates through 28 manufacturing facilities spread out in nine states, which are strategically located close to its customers, thereby enabling efficient servicing of their needs.

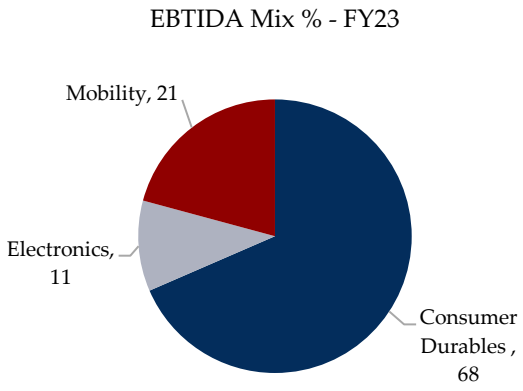
Over the past decade, Amber's revenue has grown at a 23% CAGR, led by (1) sustained market share gains in RAC; (2) integrated manufacturing facilities offering 65-70% of BOM to customers (increasing wallet share); and (3) diversification into electronics and mobility HVAC. With the changing landscape in the RAC industry (brands increasing their own manufacturing footprint), we expect Amber's components (both RAC and non-RAC), electronics and mobility to lead the growth in coming years.

Exhibit 1: Consumer durables dominates revenue…



Source: Company, HSIE Research

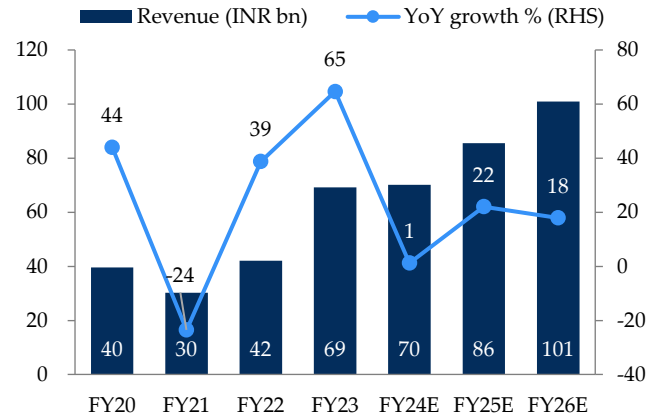
Exhibit 2: …as well as EBITDA



Source: Company, HSIE Research

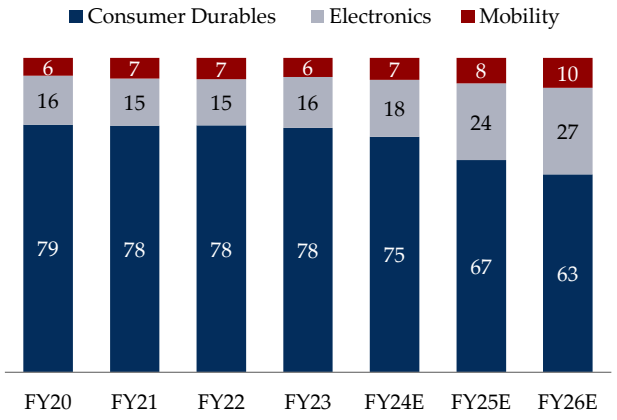
Story in charts

Exhibit 3: Revenue to grow at 13% CAGR over FY23-26E



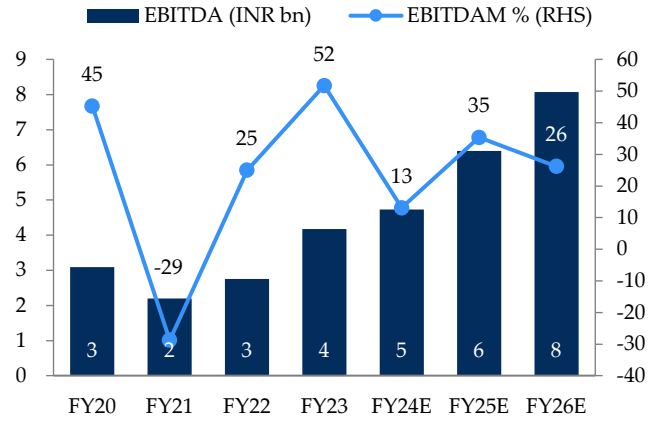
Source: Company, HSIE Research

Exhibit 4: Revenue mix



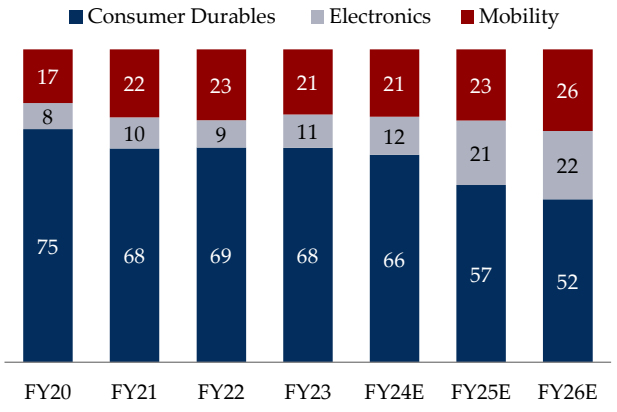
Source: Company, HSIE Research

Exhibit 5: EBITDA to grow at 25% CAGR over FY23-26E



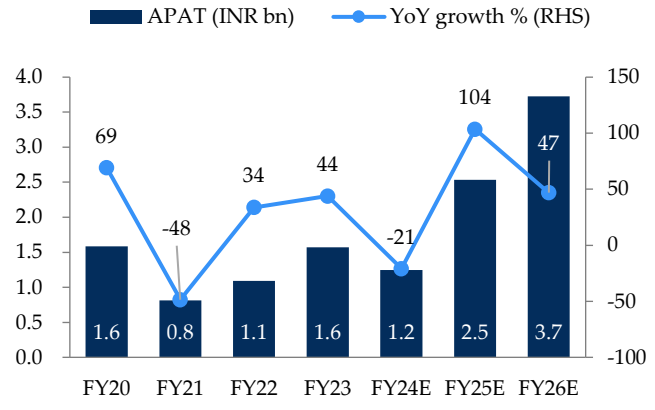
Source: Company, HSIE Research

Exhibit 6: EBITDA Mix



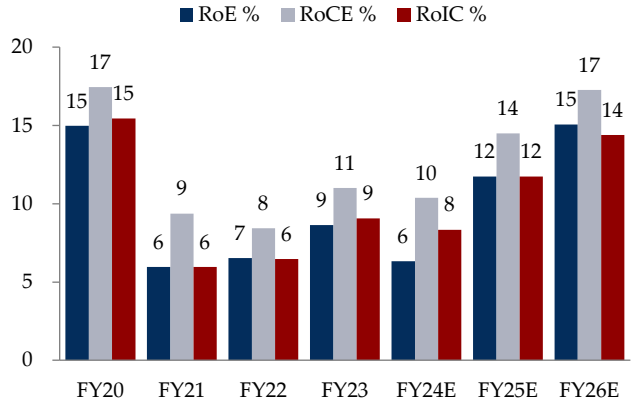
Source: Company, HSIE Research

Exhibit 7: PAT to grow at 33% CAGR over FY23-26E



Source: Company, HSIE Research

Exhibit 8: Return ratios to improve



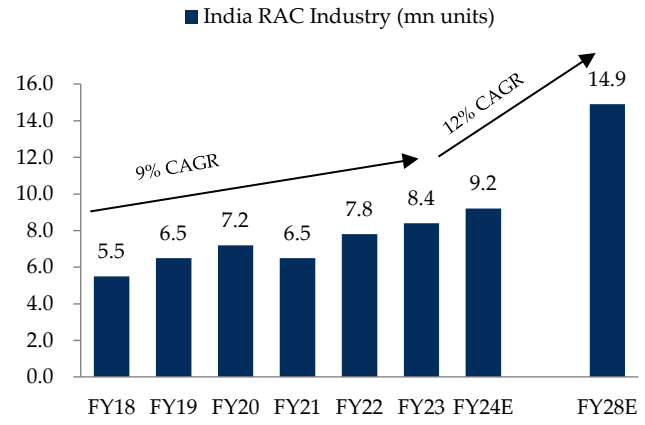
Source: Company, HSIE Research

Pivoting focus from RAC CBU to Components

Changing RAC industry landscape in India

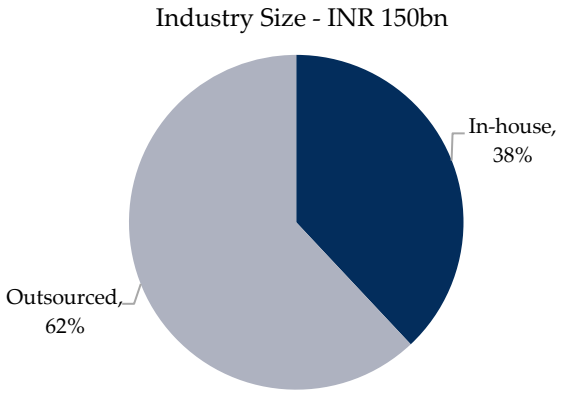
- The Indian RAC industry is expected to grow at 12% CAGR over FY23-28E to reach c.15mn units. This will be supported by (1) rising consumer aspirations with RAC now being viewed as a necessity vs luxury; (2) increasing digital penetration; (3) a shift towards energy efficiency; and (4) improving affordability which is further aided by consumer financing.
- As of FY23, of India's total manufacturing mix, EMS players manufactured/assembled c.60% of the country's total requirement.

Exhibit 9: Domestic volumes to grow at 12% CAGR



Source: PG Electroplast Placement Document, HSIE Research

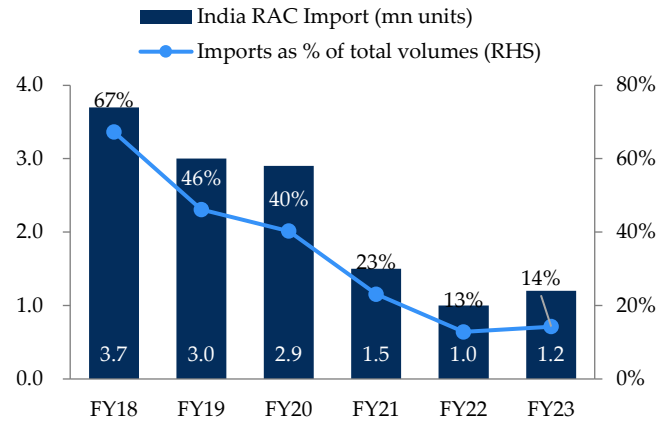
Exhibit 10: Manufacturing mix in FY23



Source: PG Electroplast Placement Document, HSIE Research

- However, over the past few years, to increase domestic manufacturing and value-addition, the government has announced certain policy measures:
  - **Phased Manufacturing Program (PMP):** involved a hike in import duty on CBU/ODU/IDU and components.
  - **Import ban on RAC CBU filled with refrigerants:** In Oct-20, the government banned the import of completely built units (CBU) of RAC units filled with refrigerants. Of India's total domestic needs, 40% was serviced through such imports until FY20. This number has now sharply reduced to 14% in FY23.
  - **Production Linked Incentive (PLI) scheme:** In 2021, the government announced PLI for white goods (Room AC and LED lights) with a total outlay of INR 62bn. The focus of the PLI was to incentivize component manufacturing and local value addition (from 25% to 75%).
- These policy initiatives have led to change in the RAC industry landscape as most of the major brands announced expansion plans for shifting the assembly business in-house along with some components vs the earlier trend of outsourcing it to EMS players. Moreover, with three of the last four summer seasons being disrupted (COVID and erratic weather) and capacity expansion by the industry, there is an increase in competitive intensity which is putting pressure on brand margins.

Exhibit 11: RAC import trend



Source: PG Electroplast Placement Document, HSIE Research

Exhibit 12: Capacity addition by brands

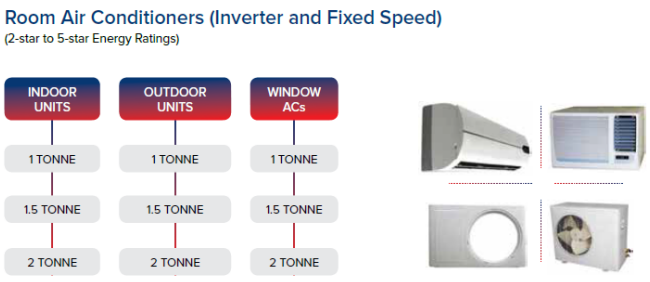
Brand	Capex (INR mn)	Location	Description
Voltas	5,000	Sri City	RAC, components
Lloyd	4,000	Sri City	RAC, components
Blue Star	5,000	Sri City	RAC, components
Daikin	10,000	Sri City	RAC, compressors, components
LG	3,000	Noida	Compressors, components
Haier	4,000	Noida	components
Mitsubishi	19,000	Peruvaili	RAC, compressors, components

Source: HSIE Research

Amber is confident of maintaining its value share in the overall RAC industry

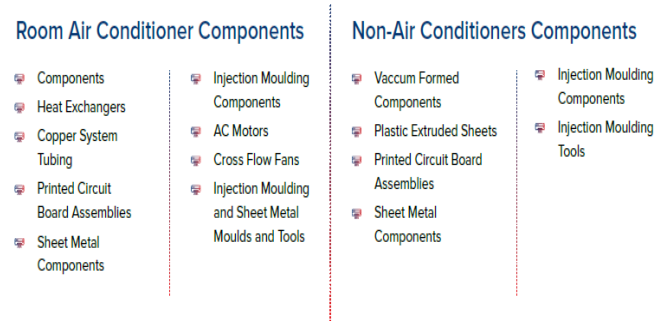
- **Realigning consumer durable strategy in favour of components:** Amber has been proactive in terms of realigning its RAC strategy in the wake of the changing industry landscape by shifting its focus towards the supply of components to the RAC industry. In addition to assembling CBUs for most major brands in the country, Amber has already been supplying critical components (which have a product approval cycle of 3-4 years) to them. We note that, in 2013 LG reduced its share of ODM purchases from Amber. However, Amber has still been able to increase its overall business with them due to the ramp-up in component supplies.

Exhibit 13: RAC product range



Source: Company, HSIE Research

Exhibit 14: RAC/Non-RAC component offerings



Source: Company; HSIE Research

- **Ability to supply 65-70% of the RAC bill of material (BOM):** Being one of the most backward integrated players in the industry, Amber can cater to 65-70 % of RAC's BOM. Amber currently manufactures 60% of the components for WAC; for split ACs, it manufactures 80% of the indoor unit and 70% of the outdoor unit. Other than compressors (high capital investments), wiring harnesses and packaging components, Amber manufactures the entire range of products needed for RAC manufacturing. As a result, despite brands investing in their own assembly lines and some components, Amber will continue to be the preferred choice for sourcing components given the extensive range and proximity to brand factories.

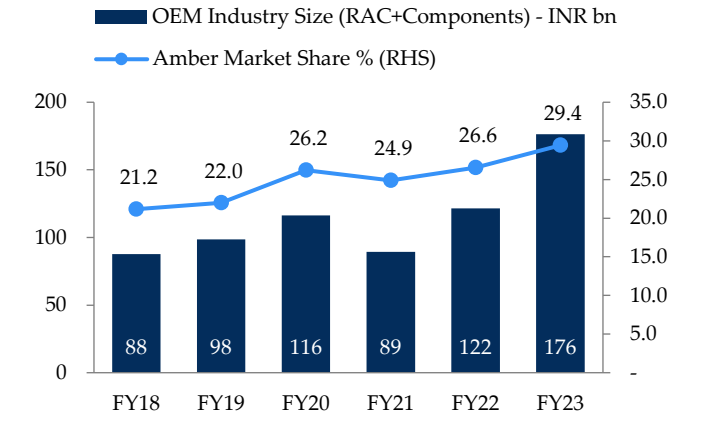
Exhibit 15: Amber caters to c.70% of BOM of inverter AC

Components in AC	ODU	IDU	Inverter AC	WAC
PCB	20%	4%	23%	5%
Heat exchanger	9%	9%	18%	20%
Plastic - Injection moulding components	3%	7%	10%	5%
Motor	4%	5%	9%	8%
Sheet Metal components	7%	0%	7%	13%
Copper tubing	4%	2%	6%	8%
Cross flow fan	0%	1%	1%	0%
Compressor	20%	0%	20%	35%
Packaging and Misc	0%	7%	7%	6%
Share in Inverter AC	**65%**	**35%**	**100%**	**100%**
Amber's share	**70%**	**80%**	**70%**	**60%**

Source: HSIE Research

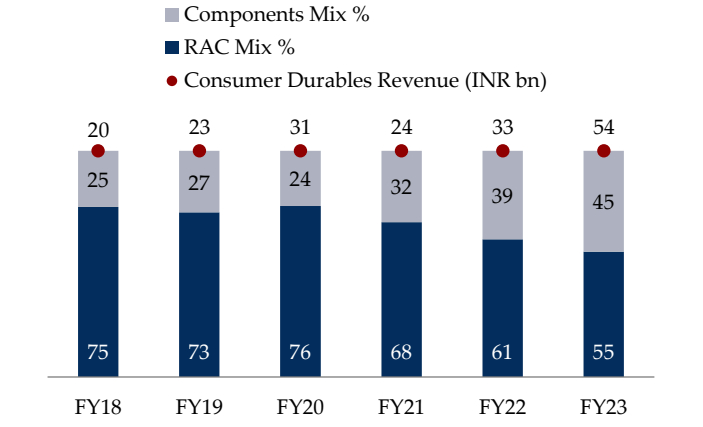
- **Looking to maintain value share in the RAC industry:** Over the past five years, RAC CBU's share in consumer durables revenue has declined to 55% in FY23 (from 75% in FY18). Despite this, Amber's value market share in the RAC OEM industry has increased by 820bps to 29.4% (450bps since FY21), thereby indicating its ability to maintain/increase wallet share with customers through RAC component sales. While RAC CBU share is expected to further decline to 30% over the next 2-3 years, we expect Amber will continue to maintain its share through RAC component sales (it already has product approvals with most leading brands). We expect consumer durable segment revenue to grow by 6% over FY23-26E, with components revenue growing by 17%. With components being a better margin business, we expect margins to expand by 80bps over FY23-26E to reach 6.8%.

Exhibit 16: Sustained improvement in market share



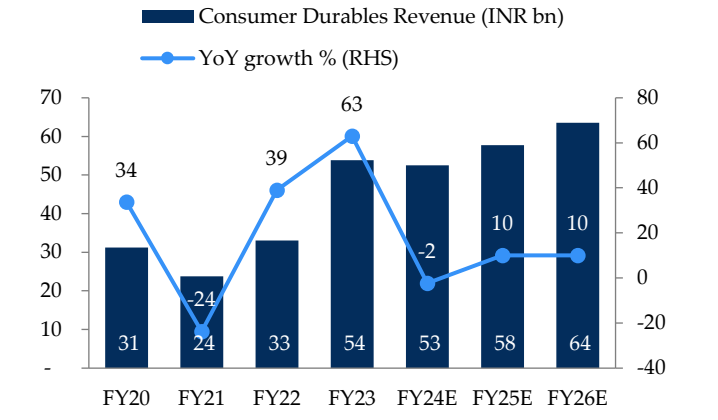
Source: Company, HSIE Research

Exhibit 17: Increasing share of components



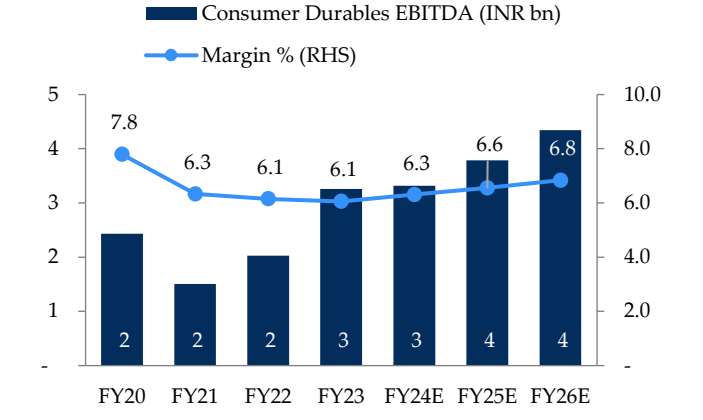
Source: Company, HSIE Research

Exhibit 18: Revenue to grow by 6% over FY23-26E



Source: Company, HSIE Research

Exhibit 19: Margins to improve by 80bps to 6.8%



Source: Company, HSIE Research

Transforming into a diversified B2B player

Over the past five years, Amber has evolved from being a pure-play RAC player to a comprehensive, backwards integrated and diversified B2B solutions provider to the HVAC and electronics space. Amber has not shied away from making strategic acquisitions in its bid to (1) further backwards integrate its offerings; (2) expand its base of end-use industry/segment; and (3) enter new categories with high approval cycles. Over the past decade, Amber has invested c.INR 8bn in acquisitions.

Amber has invested c.INR 8bn in acquisitions over the past decade.

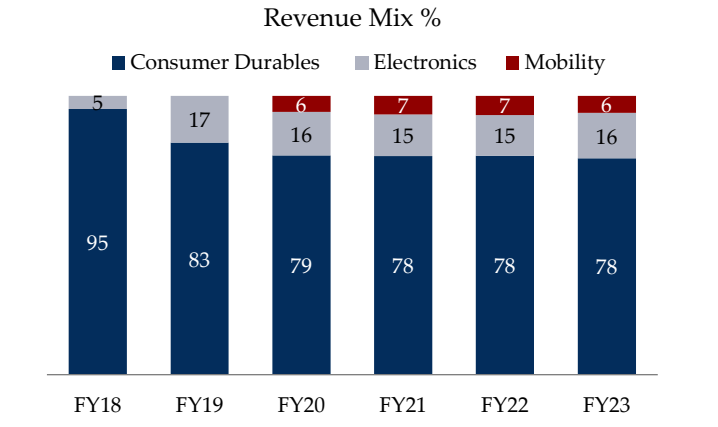
Exhibit 20: Timeline of acquisition made over the past decade

Company Name	Date	% stake	Consideration (INR mn)	Product description
PICL	Nov-12	100%	490	Motors
IL JIN Electronics	Nov-17	70%	544	PCBA
Ever Electronics	Mar-18	19%	61	PCBA
	Oct-19	51%	153	
Sidwal Refrigeration	May-19	80%	1,517	Mobility
	Sep-20	20%	603	
AmberPR Technoplast	Dec-21	73%	300	Cross Flow Fans
	Aug-23	27%	94	
Pravartaka Tooling	Feb-22	60%	220	Injection Moulding Tools
Ascent Circuits	Feb-24	60%	3,110	Bare PCB (IL JIN)
Stelltek Technologies	Sep-23	50% JV		Hearables/Wearables (JV – IN JIN w. Noise)
Shivaliks Mercantile	Feb-24	50% JV	1,000	Railway components and subsystems (JV – Sidwal w. Titagarh)
Titagarh Firema SpA	Feb-24	35%	EURO 20	Railway components and subsystems (Shivaliks)
Resojet	Mar-24	50% JV	350	Washing Machine and components

Source: HSIE Research

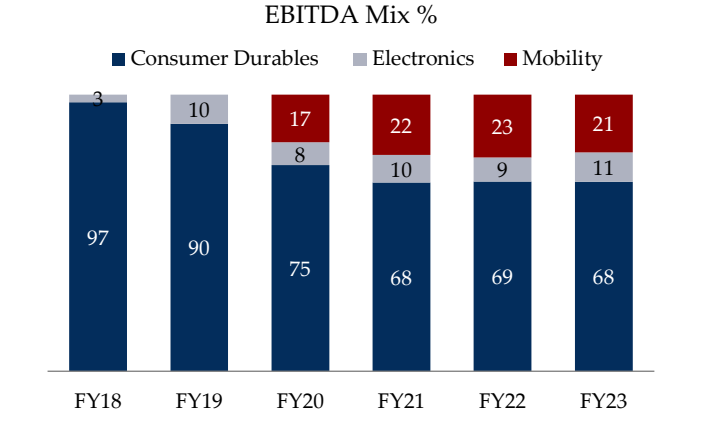
Amber's business can be broadly classified into three major segments: (1) Consumer Durables (RAC, RAC components and non-RAC components); (2) Electronics (PCBA; Bare PCB); and (3) Mobility (HVAC for railways, metros, defence, buses, etc.). Today, Amber is no longer just an RAC player. While RAC will remain a focused area, it has added other businesses that are more margin accretive and non-seasonal. Its dependence on the consumer durable segment (90%+ in FY18) and one that was largely RAC-led has reduced considerably over the past five years.

Exhibit 21: Reducing dependence on single segment



Source: Company, HSIE Research

Exhibit 22: Share of Mobility in EBITDA on the rise

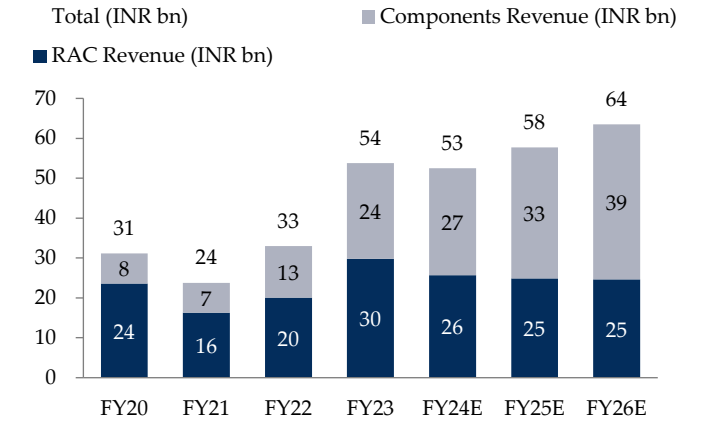


Source: Company, HSIE Research

Consumer Durables: To focus on components (RAC and non-RAC)

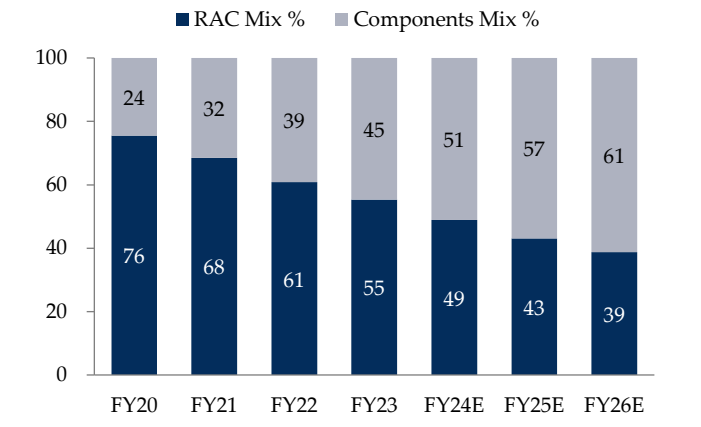
- In addition to RAC and its components, Amber has further diversified its component offering to other consumer durable segments where it manufactures liners for refrigerators, plastic extrusion sheets, sheet metal components for microwave, and washing machine tub assemblies with other sheet metal and plastic injection moulding.
- With the changing manufacturing landscape of the RAC industry, Amber will focus on its component offerings (both RAC and non-RAC) to drive growth. Over the years, it has expanded its offerings through the inorganic route which has helped expand its addressable market as well as reduce dependency on CBU RAC.
- **PICL (motors)**: Acquired in 2012, PICL is one the leading suppliers of electric motors (has applications in both RAC industry and other consumer durable sector) with about 26-27% market share. Through its 200+ models, it caters to marquee clients across both domestic and export markets. It has recently launched energy-efficient BLDC motors and is seeing traction from both the Middle Eastern and US markets. Over the past five years, PICL's revenue has grown at a 22% CAGR while margin has expanded by 360bps YoY to 12%. PICL contributed 6/11% of consumer durable revenue/EBITDA in FY23. It is expected to continue growing at a fast clip on (1) import substitution (60% imports) and (2) export opportunity.
- **AmberPR Technoplast (cross flow fans)**: AmberPR is one the leading manufacturers of Cross Flow Fans (CFF) in India with a c.25% market share. The acquisition has enabled to garner a higher wallet share from existing customers. Moreover, it has led to increasing backward integration as it is a critical component in the RAC segment. AmberPR is expanding the component segment for other industries such as refrigeration and automobiles and has expanded its capacity in its Pune facility. AmberPR contributed 2/4% of consumer durable revenue/EBITDA in FY23.
- **Pravartaka Tooling (injection moulding tools)**: Pravartaka is one of the leading manufacturers of injection moulding tools and components catering to demand from automotive, electronics and consumer durable industries. Pravartaka has set up a new facility in Chennai which is in the process of scaling up. AmberPR contributed 3/4% of consumer durable revenue/EBITDA in FY23.

Exhibit 23: Component revenue to grow at 17% CAGR



Source: Company, HSIE Research

Exhibit 24: Rising components mix



Source: Company, HSIE Research

Electronics: Expanding end-user industry, Ascent acquisition to drive growth

- With the increasing saliency of inverter AC (higher PCBA mix in BOM), Amber acquired IL JIN and EVER Electronics in 2017-18 (70% stake), thereby enhancing Amber's backward integration capabilities. Both IL JIN and EVER have more than two decades of experience in the PCBA industry. Since the acquisition, the revenue and EBITDA of the electronics segment have doubled and contributed 16/11% of consolidated revenue/EBITDA.

- **Expanding end-user industry:** At the time of acquisition, the business was predominantly focused on PCBA for the RAC segment. However, over the years, the application has been expanded to other consumer durable segments like refrigerators, washing machines and microwaves. Of late, Amber has also started manufacturing new-age applications such as smart wearables and hearables while also adding products for telecom equipment like ONT and RRH. Moreover, Amber (through IL JIN) has formed a JV with Noise which shall help deepen its presence in the wearable segment and expand into other smart electronics categories. The electronics market is witnessing a dynamic shift and products are getting smarter every day which will increase the demand for PCBAs in electronic products, thereby providing enough headroom for growth.

Ascent Clientele:
> ISRO, BEL, BHEL.
> Automotive, Telecom, CEA.
> Exports

- **Ascent Circuit acquisition:** In Feb'24, Amber (through IN JIN) acquired a 60% stake in Ascent Circuits for a consideration of INR 3.1bn. Ascent is a south-based homegrown player engaged in the manufacturing of bare PCB. It can manufacture single-sided, double-sided, multilayer and RF PCB. This acquisition will help to increase Amber's local value addition and backward integration into passive components of PCB Assemblies for various applications such as Aerospace & Defence, Medical, Telecom, Consumer Electronics and Automotive. Ascent clocked a revenue of INR 2.8bn with a mid-high teen EBITDA margin in FY23.

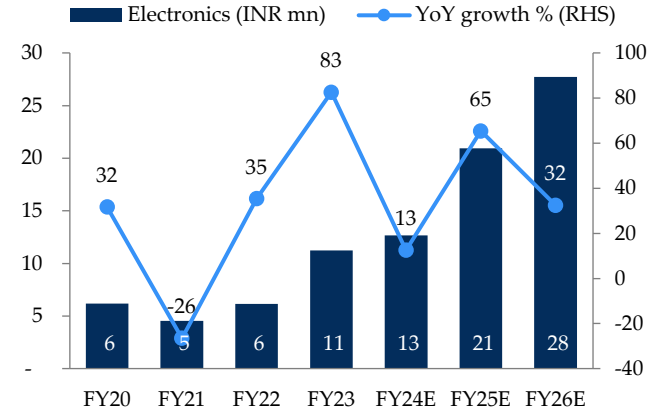
- **Tie-up with S Korea's Korea Circuit:** Further, Amber via Ascent Circuits also signed an MoU with South Korea's Korea Circuit (a YoungPoong Group Company) to manufacture Flex, HDI, semiconductor substrates, PCBs, thereby enhancing PCB manufacturing in India. Korea Circuit is the pioneer of the Korean PCB industry and it has pioneered various PCB solutions including HDI, flex, semiconductor substrates, and multilayer double-sided and single-sided PCBs in the last 45 years.

Exhibit 25: Electronics segment product offerings

Source: Company, HSIE Research

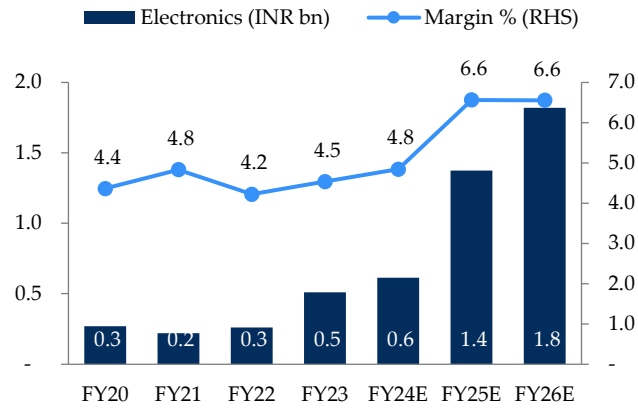
- We expect Amber's electronics segment revenue to double over the next 2-3 years with margins of c.6.5-7% given (1) a healthy order book; (2) the addition of new customers; (3) entry into new end-use industries; (4) consolidation of Ascent acquisition; and (5) improving scale of operations. The electronics segment will be a key growth driver for Amber in the coming years. We expect electronics revenue to grow by 35% over FY23-26E with margin expanding by 200bps to reach 6.6%.

Exhibit 26: Revenue to grow by 35% over FY23-26E



Source: Company, HSIE Research

Exhibit 27: Margins to improve by 200bps to 6.6%



Source: Company, HSIE Research

Mobility: Sidwal and Titagarh JV open up exciting growth opportunities

- Amber's acquisition of Sidwal in 2019 provided it with an entry into the mobility application products (HVAC) catering to Railways, Metro, Buses, Defence, Data Centre and Commercial ACs. These industries usually have high entry barriers and long approval cycles. Sidwal has secured mandatory pre-qualifications with leading entities of the Indian Railways such as ICF, RCF, DLW, CLW, BEML, Rotem, CRRC, etc. Sidwal is a market leader in railways, metro, bus, defence & telecom HVAC solutions with a proven track record of supplying 16,000+ HVAC units for Mainline Coaches and 4,000+ HVAC units for Metro Coaches.

- The acquisition enhanced the addressable market size for Amber, enabling it to capitalise on new opportunities and provide comprehensive mobility HVAC solutions to a wider range of customers. Since acquisition, the revenue has grown at c.30% CAGR with EBITDA margin in the range of 23-24%. On the other hand, the mobility segment contributed a modest 6% of consolidated revenue and its EBITDA contribution stood at 21% in FY23.

- **Expanding product offerings; to increase wallet share:** Of a railway/metro car's total BOM (c.INR 60mn), HVAC only accounts for 4-5%. To increase its wallet share per coach, Sidwal has entered into the transfer of technology agreements with two global players for doors, gangways and pantries. This shall propel its ability to offer c.15% of BOM vs the current 4-5%. The medium-to-long-term target is to become a multiproduct company in the railway sub-systems and cater to c30% of BOM.

- **To enter train components and subsystem through Titagarh Rail partnership:** In Feb'24 Amber (through Sidwal) entered into a strategic partnership with Titagarh Rail to enter train components and subsystem business for Indian and global markets. Titagarh and Sidwal will each invest INR 1-1.2bn in a 50:50 JV-SPV named Shivaliks, which in turn will invest Euro 20mn in Titagarh Firema (Italy). The following synergies are to be derived from the partnership:

  - Titagarh and Sidwal will jointly support the growth of Firema. Both the groups and Shivaliks will supply critical components from India produced by them.

  - The strategic partnership in Firema will facilitate Sidwal's entry into the European market/global play and will also give Sidwal preferred access to Firema's own demand.

  - The groups are in an advanced stage of discussions for obtaining technology to manufacture critical components and subsystems for the Railway industry from global leaders including the European ones. This would include coach

interiors, coach toilets, kitchens, seats and other important railway subsystems. The JV will aim to achieve a wallet share of c.INR 150-200 lacs per passenger coach.

- Sidwal and Titagarh will also lend each other a Preferred Supplier and a Preferred Customer status for Titagarh's own requirements for Sidwal's product, on an arm's length basis.
- Sidwal has received a Letter of Intent under the cooperation agreement for the components its manufactured for the existing and future projects by Titagarh, including the prestigious Vande Bharat project.

Exhibit 28: Current product offerings

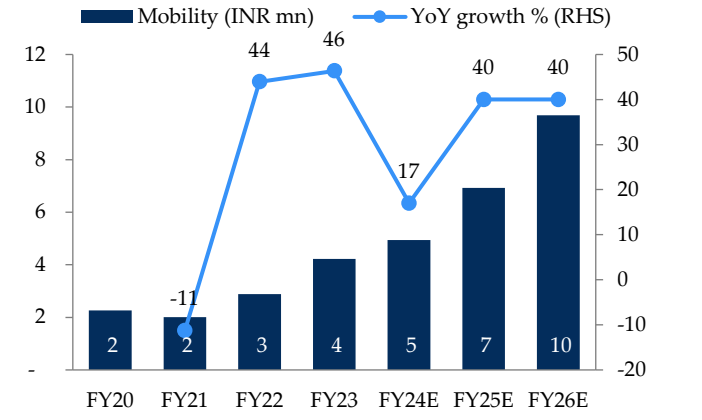
Source: Company, HSIE Research

Exhibit 29: Targeted product portfolio

Source: Company, HSIE Research

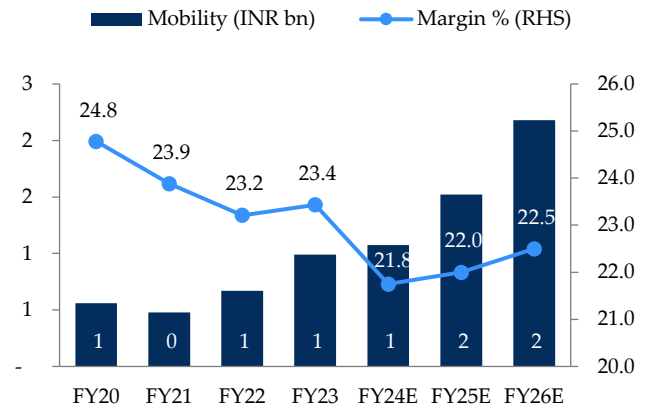
- **Sidwal in a sweet spot to ride industry tailwind:** The modernisation of the Indian Railways is expected to create significant demand. The government has announced 3,000 new Vande Bharat Express trains to be added in the next five years. Moreover, in addition to the expansion of present metro lines, 26 new cities are expected to get new metro networks. Sidwal has been able to secure orders for the Vande Bharat Express and the new Regional Rapid Transit System (RRTS). Moreover, it has successfully developed and delivered a significant number of AC units (duly tested and approved by RDSO, Ministry of Railways). These AC units have been utilised in higher-speed trains like Shatabdi Express, Rajdhani Express for Indian Railways, Gatimaan Express & Tejas Express Trains, and the newly launched Vande Bharat Express.
- Sidwal's current order book stands at c.INR 1.1bn with another INR 0.9mn amid finalization post-Titagarh alliance. We expect Sidwal's mobility segment revenues to grow at 32% over FY23-26 with margins at 22-22.5%, led by (1) a strong order book; (2) an increasing wallet share; and (3) a strategic alliance with Titagarh.

Exhibit 30: Revenue to grow by 32% over FY23-26E



Source: Company, HSIE Research

Exhibit 31: Margins to remain stable at 22/22.5%



Source: Company, HSIE Research

Manufacturing facilities strategically located near customers

Amber's strong and widespread footprint is a key advantage. With a total of 28 manufacturing facilities and four R&D facilities located in pan-India, Amber can provide just-in-time and cost-effective delivery to its customers. The multiple manufacturing locations also allow efficient utilisation of facilities, enabling it to effectively distribute manufacturing and handle simultaneous demand schedules from multiple customers on a just-in-time basis. This strategic advantage enhances Amber's ability to meet customer needs and maintain a competitive edge in the RAC industry.

Exhibit 32: Well spread-out pan-India presence

Consumer Durables – 23 Facilities	
RAC & Non-RAC Components	**Location:** Dehradun, Jhajjar, Pune, Greater Noida, Rudrapur, Rajpura , Shahjanpur, Chennai, Sri City, Kadi & Manesar
RAC FG	**Location:** Dehradun, Jhajjar, Pune & Sri City
Motors	**Location:** Faridabad
Tooling	**Location:** Noida
Electronics – 4 Facilities	
PCBA's	**Location:** Greater Noida, Pune & Chennai
Telecom	**Location:** Greater Noida & Chennai
Wearables & Hearables	**Location:** Noida
Railway Sub-systems & Mobility – 1 Facility	
Railway Subsystems	**Location:** Faridabad

Source: Company; HSIE Research

Name	Role	Experience (in years)	Comments
Jasbir Singh	Executive Chairman and CEO	19+	✓ Over 19 years of experience in RAC manufacturing sector ✓ Initiated the concept of additive manufacturing solutions. ✓ Handles key customer relationships. ✓ Bachelor's degree in Production Engineering. Master's degree in Business Administration from the University of Hull, United Kingdom.
Daljit Singh	Managing Director	17+	✓ Over 17 years of experience in finance services and 10+ years of experience in the RAC manufacturing sector. ✓ Awarded "Entrepreneur of the Year 2016"by Ludhiana Management Association ✓ Drives Research & Development with ODM focus. ✓ Previously worked with Morgan Stanley in New York ✓ Bachelor's degree in Electronic Engineering. Master's degree in Information Technology from the Rochester Institute of Technology.
Sanjay Arora	CEO – Electronics Division	35+	✓ Over 35 years of rich experience in Manufacturing, After sales services and Sales. ✓ Previously worked with Onida Savak, Kortek Electronics and LG Electronics. ✓ Diploma in Electrical Engineering with specialisation in electronics and television technology from YMCA Institute of Engineering, Faridabad.
Udaiveer Singh	CEO – Mobility Division	25+	✓ Over 25 years of experience in the manufacturing industry ✓ Diploma in Mechanical Engineering
Sachin Gupta	CEO – RAC and CAC Division	17+	✓ Over 17 years of experience in the manufacturing industry ✓ Previously worked with LG Electronics and Godrej & Boyce ✓ Diploma in Electrical Engineering from YMCA Institute of Engineering, Faridabad
Sudhir Goyal	CFO	16+	✓ Over 16 years of experience in the finance function within the manufacturing sector. ✓ Previously worked with Hythro Power, Altima Systems, ETA Ascon group of Companies, Jamshedpur Mineral Wood Manufacturing. ✓ Bachelor of Commerce (Hons) from Delhi University, Associate member of the ICAI.

Financials and valuation

Revenue to grow at 13% CAGR over FY23-26E

We expect revenue to grow at a CAGR of 13% over FY23-26E, led by 35/32% CAGR in the electronics/mobility segments. The consumer durables revenue will grow at 6% CAGR over the same period.

- **Consumer Durables:** We expect Consumer Durables revenues to grow at 6% over FY23-26E, led by 17% CAGR in component revenues. During this period we expect RAC revenue to fall by 6%, given the changing industry landscape as brands are setting up their own assembly lines. However, we believe Amber will be able to maintain its value market share in the overall OEM industry and grow at least in tandem with the industry in the medium-long term.

- **Electronics:** Given the government's focus on increasing domestic manufacturing of electronics products, Amber's electronics division remains in a sweet spot. We expect Amber's electronics segment revenues to grow at 35% over FY23-26E, given (1) a healthy order book; (2) addition of new customers; (3) entering new end-use industries; and (4) consolidation of Ascent acquisition. The electronics segment will be a key growth driver for Amber in the coming years.

- **Mobility:** The modernisation of Indian Railways, expansion and addition of metros remain key growth drivers for the industry. Sidwal already has product approval in place with key Indian Railways entities. We expect Sidwal's mobility segment revenues to grow at 32% over FY23-26, led by (1) a strong order book; (2) an increasing wallet share; and (3) a strategic alliance with Titagarh.

Exhibit 33: Key Revenue assumptions

Year End (March)	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
Revenue (INR mn)							
Consumer Durables	31,180	23,760	33,020	53,810	52,525	57,752	63,529
Electronics	6,190	4,550	6,160	11,250	12,658	20,941	27,744
Mobility	2,260	2,006	2,887	4,224	4,943	6,920	9,688
Total	**39,630**	**30,316**	**42,067**	**69,284**	**70,126**	**85,613**	**1,00,961**
Revenue Growth %							
Consumer Durables	34	-24	39	63	-2	10	10
Electronics	32	-26	35	83	13	65	32
Mobility		-11	44	46	17	40	40
Total	**41**	**-24**	**39**	**65**	**1**	**22**	**18**
Revenue Mix %							
Consumer Durables	79	78	78	78	75	67	63
Electronics	16	15	15	16	18	24	27
Mobility	6	7	7	6	7	8	10
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: Company, HSIE Research

EBITDA and PAT to grow at 25/33% CAGR over FY23-26E

We estimate EBITDA will grow at a CAGR of 25% over FY23-26E, led by (1) an increasing mix of higher margin component business and mobility segment; and (2) margin expansion in the electronics segment. We expect margins to improve by 200bps. We estimate PBT will grow by 34%, aided by rising other income (disbursement of PLI). PAT to grow at 33% CAGR.

Exhibit 34: Key EBITDA assumptions

Year End (March)	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
EBITDA (INR mn)							
Consumer Durables	2,430	1,504	2,030	3,260	3,314	3,784	4,342
Electronics	270	220	260	510	613	1,374	1,818
Mobility	560	479	670	990	1,075	1,522	2,180
Total	**3,260**	**2,203**	**2,960**	**4,760**	**5,002**	**6,681**	**8,340**
EBITDAM %							
Consumer Durables	7.8	6.3	6.1	6.1	6.3	6.6	6.8
Electronics	4.4	4.8	4.2	4.5	4.8	6.6	6.6
Mobility	24.8	23.9	23.2	23.4	21.8	22.0	22.5
Total	**8.2**	**7.3**	**7.0**	**6.9**	**7.1**	**7.8**	**8.3**
EBITDA growth %							
Consumer Durables	25	-38	35	61	2	14	15
Electronics	19	-19	18	96	20	124	32
Mobility		-14	40	48	9	42	43
Total	**50**	**-32**	**34**	**61**	**5**	**34**	**25**
EBITDA Mix %							
Consumer Durables	75	68	69	68	66	57	52
Electronics	8	10	9	11	12	21	22
Mobility	17	22	23	21	21	23	26
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: Company, HSIE Research

Valuation

Over the past five years, Amber has evolved from being a pure play RAC player to a comprehensive, backward integrated and diversified B2B solutions provider to the HVAC and electronics space. During this period, its revenue/EBITDA/PAT grew by 27/18/20% led by (1) sustained market share gains in RAC; (2) integrated manufacturing facilities offering 65-70% of BOM to customers (increasing wallet share); and (3) diversifying into electronics and mobility HVAC. In the wake of changing RAC industry landscape (in-sourcing from brands), Amber has been proactive in terms of realigning its RAC strategy by shifting its focus towards supply of components to the RAC industry

We estimate revenue/EBITDA/PAT will grow at 13/25/33% over FY23-26E led by (1) ability to maintain/increase RAC industry value share through component sales (up 450bps since FY21 despite falling CBU volumes); (2) expanding end-user industry in electronics segment; and (3) increasing wallet share in mobility segment (from 4-5% to 15-20%) through strategic tie-ups (Sidwal with Titagarh Rail). Moreover, we expect RoE/RoCE to improve to 15%/17% led by improving scale of operations, margin expansion and working capital efficiency.

We initiate coverage on Amber with a BUY rating and value the stock at 38x FY26 earnings to arrive at a TP of INR 4,200. Currently the stock is trading at 47x/32x FY25E/FY26E earnings. Based on reverse DCF (WACC: 13%; terminal growth rate: 5%) at CMP, implied revenue/EBIT CAGR over the next decade is 13/19%, which looks reasonable given long runway for growth in (1) underpenetrated RAC industry; (2) industry tailwind in electronics and mobility segment.

Exhibit 35: Amber is trading at 46x 1-year forward P/E…

Source: Bloomberg, HSIE Research

Exhibit 36: … and 19x 1-year forward EV/EBITDA

Source: Bloomberg, HSIE Research

Key Risk

- Seasonality and general slowdown in consumption.
- Volatile raw material and commodity costs can impact margins.
- Further increase in in-sourcing by brands.
- Any adverse change in government policies.

Annexure

Board of Directors

Name		Management Role
Family Representation on Board of Directors		
Jasbir Singh	Chairman & CEO	Yes
Daljit Singh	Managing Director	Yes
Other Board of Directors		
Manoj Kumar Sehrawat	Nominee Director	
Arvind Uppal	Independent Director	
Girish Kumar Ahuja	Independent Director	
Sudha Pillai	Independent Director	

Auditors list

Name	
S.R. Batliboi & Co. LLP	Statutory Auditor
Deepak Gulati & Associates	Internal Auditor
K.G. Goyal & Associates	Cost Auditor
Amit Chaturvedi & Associates	Secretarial Auditors

Financials

Consolidated P&L

Year End (March) - INR mn	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
Net Revenues	**27,520**	**39,628**	**30,305**	**42,064**	**69,271**	**70,126**	**85,613**	**1,00,961**
Growth (%)	29.3	44.0	(23.5)	38.8	64.7	1.2	22.1	17.9
Material Expenses	23,195	33,017	25,135	35,297	58,678	57,854	70,031	82,334
Employee Expense	588	1,063	1,021	1,500	2,116	2,525	3,039	3,534
Other Expenses	1,609	2,455	1,947	2,514	4,298	5,020	6,144	7,020
EBITDA	**2,129**	**3,093**	**2,203**	**2,754**	**4,179**	**4,727**	**6,398**	**8,074**
EBITDA Growth (%)	16.0	**45.3**	**(28.8)**	**25.0**	**51.8**	**13.1**	**35.3**	**26.2**
EBITDA Margin (%)	**7.7**	**7.8**	**7.3**	**6.5**	**6.0**	**6.7**	**7.5**	**8.0**
Depreciation	623	848	923	1,079	1,391	1,840	1,990	2,232
EBIT	**1,506**	**2,245**	**1,280**	**1,675**	**2,788**	**2,888**	**4,408**	**5,841**
Other Income (Including EO Items)	99	82	331	332	527	521	620	734
Interest	246	419	410	464	1,118	1,608	1,405	1,302
PBT	**1,359**	**1,907**	**1,201**	**1,543**	**2,197**	**1,801**	**3,624**	**5,273**
Total Tax	412	266	369	429	559	450	906	1,318
Profit before JV/Associates/NCI	**948**	**1,641**	**833**	**1,113**	**1,638**	**1,351**	**2,718**	**3,955**
Share of JV/Associates	-	-	-	-	-	-	-	-
Non-controlling Interest	11	57	17	21	66	105	182	229
Exceptional Gain/ (loss)	-	-	-	-	-	-	-	-
RPAT	**937**	**1,584**	**816**	**1,092**	**1,572**	**1,246**	**2,535**	**3,726**
Adjusted PAT	**937**	**1,584**	**816**	**1,092**	**1,572**	**1,246**	**2,535**	**3,726**
APAT Growth (%)	50.3	**69.1**	**(48.5)**	**33.8**	**44.0**	**(20.8)**	**103.5**	**46.9**
EPS	**29.8**	**50.4**	**24.2**	**32.4**	**46.7**	**37.0**	**75.2**	**110.6**
EPS Growth (%)	**50.3**	**69.1**	**(51.9)**	**33.8**	**44.0**	**(20.8)**	**103.5**	**46.9**

Consolidated Balance Sheet

Year End (March) - INR mn	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
SOURCES OF FUNDS								
Share Capital - Equity	314	314	337	337	337	337	337	337
Other Equity	9,547	10,970	15,704	17,005	18,751	19,997	22,532	26,258
Total Shareholders Funds	**9,861**	**11,284**	**16,041**	**17,342**	**19,088**	**20,334**	**22,869**	**26,594**
NCI	190	348	365	387	452	558	740	969
Long Term Debt	1,412	1,388	1,651	3,323	5,766	5,756	5,221	4,694
Short Term Debt	895	1,817	2,193	6,995	7,671	7,041	8,162	8,610
Total Debt	**2,307**	**3,205**	**3,843**	**10,318**	**13,437**	**12,797**	**13,383**	**13,305**
Net Deferred Taxes	438	678	769	954	947	956	974	1,001
Other Non Current Liabilities	325	843	255	811	1,661	1,380	1,486	1,529
TOTAL SOURCES OF FUNDS	**13,121**	**16,358**	**21,274**	**29,812**	**35,586**	**36,025**	**39,452**	**43,397**
APPLICATION OF FUNDS								
Net Block	**6,511**	**6,999**	**7,423**	**9,898**	**16,166**	**18,411**	**20,471**	**22,095**
Goodwill	**669**	**1,223**	**1,223**	**1,457**	**1,425**	**1,428**	**1,428**	**1,428**
CWIP	337	118	433	1,282	503	500	500	500
Intangible assets	915	2,361	2,354	2,804	2,899	2,930	2,994	3,018
Right of Use Assets	-	475	441	893	1,725	1,642	1,940	2,191
Non Current Investments	-	-	551	1,056	23	23	23	23
Other Non Current Assets	448	476	1,457	2,021	1,296	1,403	1,435	1,469
Total Non-current Assets	**8,879**	**11,652**	**13,881**	**19,411**	**24,038**	**26,336**	**28,791**	**30,724**
Current-Investments	-	-	529	1,198	1,912	1,912	1,912	1,912
Inventories	5,606	6,557	7,163	8,408	10,913	9,606	11,493	13,277
Debtors	7,872	8,542	10,690	13,149	17,631	15,370	18,530	21,575
Cash & Equivalents	447	1,203	2,899	5,626	5,594	4,329	4,923	6,498
Other Current Assets	904	1,055	683	1,304	2,315	1,672	1,866	2,046
Total Current Assets	**14,829**	**17,357**	**21,964**	**29,685**	**38,365**	**32,890**	**38,724**	**45,308**
Creditors	9,407	11,068	13,169	17,021	23,039	20,173	24,628	29,044
Other Current Liabilities & Provns	1,179	1,583	1,402	2,263	3,778	3,028	3,435	3,591
Total Current Liabilities	**10,587**	**12,651**	**14,571**	**19,284**	**26,817**	**23,201**	**28,063**	**32,634**
Net Current Assets	**4,242**	**4,706**	**7,393**	**10,401**	**11,548**	**9,689**	**10,661**	**12,673**
TOTAL APPLICATION OF FUNDS	**13,121**	**16,358**	**21,274**	**29,812**	**35,586**	**36,025**	**39,452**	**43,397**

Consolidated Cash Flow

Year End (March) - INR mn	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
Reported PBT	1,359	1,907	1,201	1,543	2,197	1,801	3,624	5,273
Non-operating & EO Items	(82)	151	(165)	(78)	(379)	(630)	(183)	(321)
Interest Expenses	246	419	410	464	1,118	1,608	1,405	1,302
Depreciation	623	848	923	1,079	1,391	1,840	1,990	2,232
Working Capital Change	(2,477)	44	(80)	(62)	(582)	594	(378)	(438)
Tax Paid	(299)	(488)	(79)	(539)	(539)	(450)	(906)	(1,318)
OPERATING CASH FLOW (a)	**(631)**	**2,882**	**2,210**	**2,407**	**3,206**	**4,762**	**5,551**	**6,731**
Capex	(1,182)	(1,411)	(1,711)	(4,077)	(6,535)	(4,031)	(4,413)	(4,132)
Free Cash Flow (FCF)	*(1,812)*	*1,471*	*499*	*(1,670)*	*(3,329)*	*731*	*1,138*	*2,599*
Investments	86	(268)	(2,715)	(2,546)	1,337	-	(500)	(1,500)
Non-operating Income	11	14	103	193	310	251	275	356
Others	(45)	(1,601)	(487)	(465)	-	-	-	-
INVESTING CASH FLOW (b)	**(1,130)**	**(3,266)**	**(4,810)**	**(6,896)**	**(4,888)**	**(3,780)**	**(4,638)**	**(5,275)**
Debt Issuance/(Repaid)	1,176	1,209	161	6,031	3,120	(640)	586	(78)
Interest Expenses	(245)	(414)	(372)	(430)	(1,097)	(1,608)	(1,405)	(1,302)
FCFE	**(391)**	**3,093**	**1,032**	**4,791**	**888**	**1,698**	**3,129**	**3,823**
Share Capital Issuance	-	-	4,000	-	-	-	-	-
Dividend	-	(121)	-	-	-	-	-	-
Others	-	(40)	(89)	(46)	(96)	-	-	-
FINANCING CASH FLOW (c)	**932**	**634**	**3,700**	**5,555**	**1,928**	**(2,248)**	**(819)**	**(1,380)**
NET CASH FLOW (a+b+c)	**(829)**	**250**	**1,099**	**1,066**	**246**	**(1,265)**	**94**	**75**
EO Items, Others	-	-	-	-	-	-	-	-
Closing Cash & Equivalents	389	700	1,800	2,986	3,232	1,967	2,060	2,135

Ratios

Year End (March)	FY19	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
PROFITABILITY (%)								
GPM	15.7	16.7	17.1	16.1	15.3	17.5	18.2	18.5
EBITDA Margin (%)	7.7	7.8	7.3	6.5	6.0	6.7	7.5	8.0
EBIT Margin	5.5	5.7	4.2	4.0	4.0	4.1	5.1	5.8
PBT Margin	4.9	4.8	4.0	3.7	3.2	2.6	4.2	5.2
APAT Margin	3.4	4.0	2.7	2.6	2.3	1.8	3.0	3.7
RoE	10.0	15.0	6.0	6.5	8.6	6.3	11.7	15.1
RoIC (or Core RoCE)	10.3	15.5	6.0	6.5	9.1	8.3	11.7	14.4
RoCE	14.5	17.5	9.4	8.4	11.0	10.4	14.5	17.3
EFFICIENCY								
Tax Rate (%)	30.3	13.9	30.7	27.8	25.4	25.0	25.0	25.0
Fixed Asset Turnover (x)	3.1	4.3	3.0	3.4	4.0	3.1	3.3	3.4
Inventory (days)	63	56	83	68	51	50	49	48
Debtors (days)	77	76	116	103	81	80	79	78
Other Current Assets (days)	10	9	10	9	10	9	8	7
Payables (days)	100	94	146	131	106	105	105	105
Other Current Liab & Provns (days)	14	13	18	16	16	16	15	13
Cash Conversion Cycle (days)	36	34	45	33	20	18	16	15
Net D/E (x)	0.2	0.2	0.1	0.3	0.4	0.4	0.4	0.3
Interest Coverage (x)	6.1	5.4	3.1	3.6	2.5	1.8	3.1	4.5
PER SHARE DATA (Rs)								
EPS	29.8	50.4	24.2	32.4	46.7	37.0	75.2	110.6
CEPS	49.6	77.3	51.6	64.4	87.9	91.6	134.3	176.8
Dividend	-	3.2	-	-	-	-	-	-
Book Value	313.6	358.8	476.1	514.7	566.5	603.5	678.7	789.3
VALUATION								
P/E (x)	119.3	70.5	146.7	109.6	76.1	96.1	47.2	32.1
P/BV (x)	11.3	9.9	7.5	6.9	6.3	5.9	5.2	4.5
EV/EBITDA (x)	53.3	36.8	54.5	44.7	30.1	26.7	19.7	15.4
EV/Revenues (x)	4.1	2.9	4.0	2.9	1.8	1.8	1.5	1.2
OCF/EV (%)	(0.6)	2.5	1.8	2.0	2.6	3.8	4.4	5.4
FCF/EV (%)	(1.6)	1.3	0.4	(1.4)	(2.7)	0.6	0.9	2.1
FCFE/Mkt Cap (%)	(0.4)	2.8	0.9	4.0	0.7	1.4	2.6	3.2
Dividend Yield (%)	-	0.1	-	-	-	-	-	-

INSTITUTIONAL RESEARCH

Syrma SGS Technology

Well-diversified business model

We initiate coverage on Syrma with a BUY rating and target price of INR 620. Syrma is one of the prominent domestic EMS players and is well-placed to benefit from government's push on making India a manufacturing hub for electronics, given (1) its well-diversified business model with presence across several industry segments & low customer concentration; (2) its well-balanced mix between PCBA, RFIDs, box-builds, ODM and exports; (3) its strong manufacturing footprint with R&D capabilities and backward integration capabilities; and (4) its pursuit of inorganic growth opportunities. Syrma's margin has been under pressure over the past couple of years on account of (1) changing industry mix in favour of low margin/high asset turn prescriptive business (consumer) and (2) step up in capex outlay (INR 3.5bn over past 21 months) leading to lower asset turns as new capacities take time to scale. However, with improving scale of operations and working capital efficiency, we expect RoE/RoCE to improve here onwards to reach 14%/18% by FY26.

We estimate Syrma's revenue/EBITDA/PAT to grow at a CAGR of 41/35/32% over FY23-26E. At CMP, the stock implies a revenue/EBIT CAGR of 30/31% over the next decade. We value the stock at 40x FY26 earnings to arrive at a target price of INR 620. Initiate coverage with a BUY rating.

- **Diversified offerings with technology focus:** Over the years, Syrma has diversified its business model both in terms of product offerings (PCBA, box build, RFID, ODM, exports) and industry verticals (automotive, consumer, industrial, healthcare, IT and railways). Such a diverse nature of business has not only increased TAM but also offers an inherent hedge should a specific sector go through some downturn, in our view. Syrma has a track record of technical innovation (three R&D centres—two in India, one in Germany) which involves collaboration with engineering teams of their marquee clients.
- **Growing through timely capacity addition and acquisitions:** Keeping the visible industry tailwinds in mind, Syrma has stepped up its capex outlay, having spent c.INR 3.5bn over the past 21 months with another INR 2bn to be spent in the coming 12-18 months. Moreover, in conjunction with its organic growth strategies, Syrma has taken the acquisition route to expand its portfolio, market share as well as geographical footprint in the EMS sector.
- **Valuation and outlook:** We estimate revenue/PAT will grow at 41/32% over FY23-26E and expect RoE/RoCE to improve to reach 14%/18% by FY26 due to the improving scale of operations and working capital efficiency. Based on reverse DCF, at CMP the implied revenue/EBIT CAGR over the next decade is 30/31%, which in our view looks achievable, given the long runway for growth and India's EMS industry at an inflection point. We value the stock at 40x FY26 earnings to arrive at a target price of INR 620. Initiate coverage with a BUY rating. **Key risks:** (1) A subdued demand environment can lead to delays in orders from clients. (2) Lack of component ecosystem in India and volatility in forex rates. (3) Inability to grow ODM and export business. (4) Any change in government policies.

Financial summary

YE Mar (INR mn)	FY21	FY22	FY23	FY24E	FY25E	FY26E
Net Sales	8,874	12,666	20,484	29,517	42,054	57,640
EBITDA	999	1,260	1,878	2,127	3,142	4,624
APAT	630	722	1,193	1,261	1,716	2,735
Diluted EPS (INR)	4.6	5.2	6.7	7.1	9.7	15.5
P/E (x)	105.3	91.8	71.4	67.5	49.7	31.2
EV / EBITDA (x)	0.2	53.6	46.5	42.0	28.3	19.1
RoE (%)	12.7	13.0	11.3	7.9	10.0	14.4

Source: Company, HSIE Research

BUY

CMP *(as on 22 Mar2024)*	**INR 482**
Target Price	**INR 620**
NIFTY	**22,097**

KEY STOCK DATA

Bloomberg code	SYRMA IN
No. of Shares (mn)	178
MCap (INR bn) / ($ mn)	84/1,031
6m avg traded value (INR mn)	527
52 Week high / low	INR 705/251

STOCK PERFORMANCE (%)

	3M	6M	12M
Absolute (%)	(28.5)	(13.8)	82.5
Relative (%)	(30.6)	(23.8)	56.3

SHAREHOLDING PATTERN (%)

	Sep-23	Dec-23
Promoters	47.21	46.89
FIs & Local MFs	9.63	8.21
FPIs	10.14	11.12
Public & Others	33.02	33.78
Pledged Shares	0.00	0.00

Source : BSE

Pledged shares as % of total shares

Paarth Gala
paarth.gala@hdfcsec.com
+91-22-6171-7336

Syrma SGS—Building for tomorrow

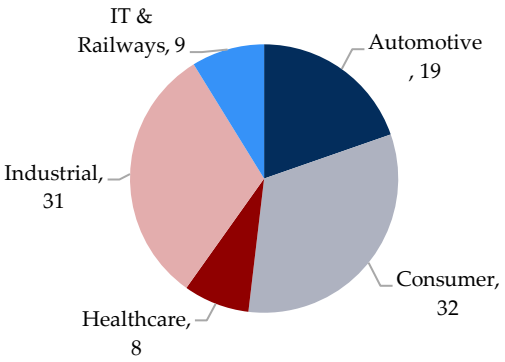
Syrma SGS (Syrma), with over four decades of experience in precision electronics manufacturing, is a technology-focused engineering and design company engaged in turnkey electronics manufacturing services (EMS). It caters to diverse industries like industrial appliances, automotive, healthcare, consumer products, and IT industries.

- Syrma serves both global and Indian OEMs through their comprehensive EMS range encompassing product design, quick prototyping, PCB assembly, and box build. Additionally, they offer customized end-to-end solutions for RFID tags and inlays, high-frequency magnetic components, repair, rework and automatic tester development services. Syrma is amongst the top key global manufacturers of custom RFID tags.
- Syrma operates from 13+ strategically located manufacturing facilities (north and south India) with more in the works. Strategically located manufacturing facilities in Tamil Nadu, Karnataka and Haryana aid in meeting export demand efficiently (30% of FY23 revenue). The manufacturing infrastructure enables them to undertake a high mix of products with flexible production volume requirements.
- Syrma has taken the acquisition route over the years to expand its market share in the EMS sector and widen its geographical footprint. The SGS Tekniks acquisition (2020-21) provided ample headroom for growth with no customer/geography overlap. While Perfect ID acquisition (2021-22) helped acquire infrastructure and know-how for manufacturing RFID labels and passive inlay tags. More recently, Johari Digital's acquisition (2023) has helped foray into the large, fragmented and fast-growing medical devices segment.
- Syrma has a track record of technical innovation which involves collaboration with the engineering teams of their marquee clients. Over the years, Syrma has evolved to provide integrated services and solutions to OEMs, from the initial product concept stage to volume production through concept co-creation and product realization.

Over FY19-23, Syrma's revenue has grown at 27% CAGR, primarily led by the automotive, consumer and industrial sectors. The healthcare vertical has been impacted by an inflation-led reduction in discretionary spending. Syrma remains a key beneficiary to benefit from the industry tailwinds. It will focus on (1) strengthening the core competitiveness of technology innovation; (2) pursuing inorganic growth opportunities; (3) catering to new-age products and industries; (4) partnering with marquee clients; and (5) using capital efficiently.

Exhibit 1: Consumer, Industrial and Auto dominate

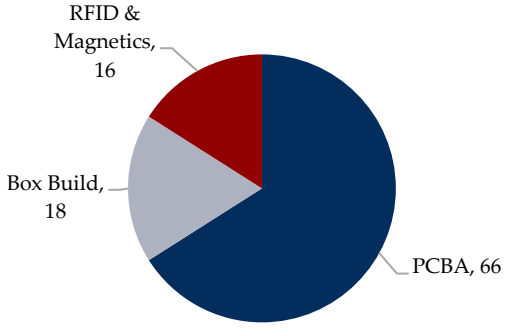
Revenue mix by Industry - FY23



Source: Company, HSIE Research

Exhibit 2: Healthy share of Box Build and RFID

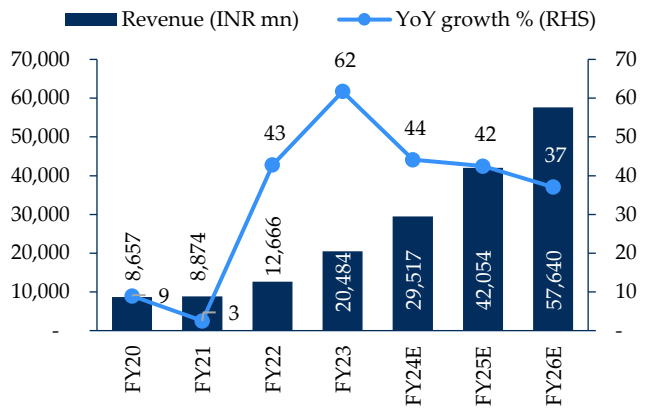
Revenue mix by Product - FY23



Source: Company, HSIE Research

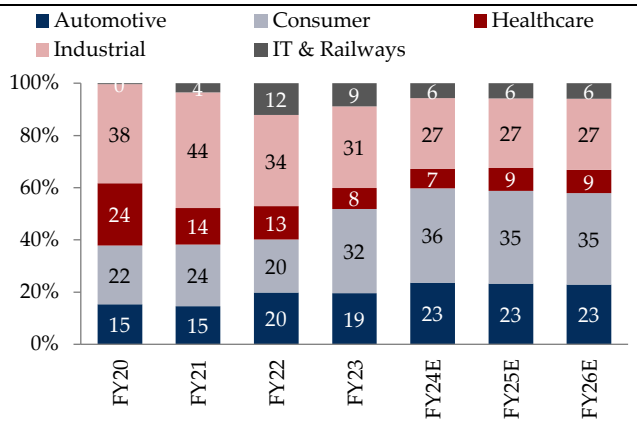
Story in charts

Exhibit 3: Revenue to grow at 41% CAGR over FY23-26E



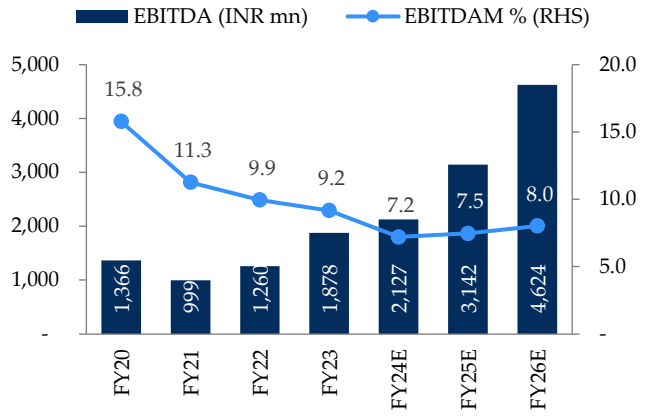
Source: Company, HSIE Research

Exhibit 4: Revenue Mix



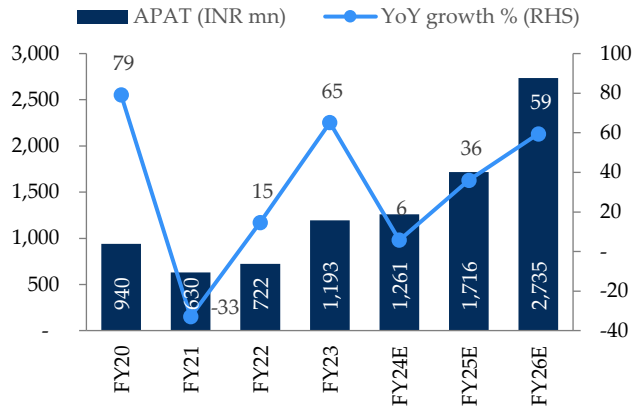
Source: Company, HSIE Research

Exhibit 5: EBITDA to grow at 35% CAGR over FY23-26E



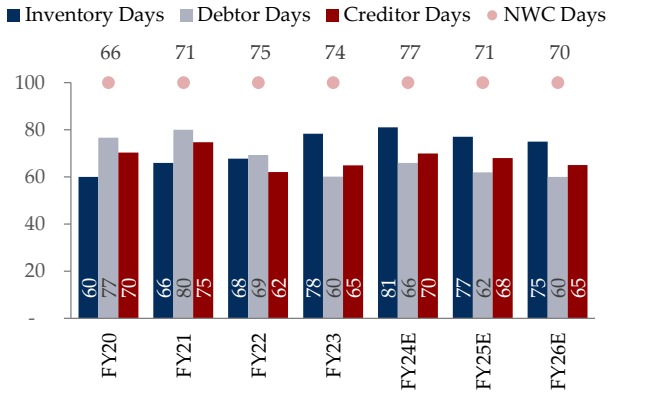
Source: Company, HSIE Research

Exhibit 6: PAT to grow at 32% CAGR over FY23-26E



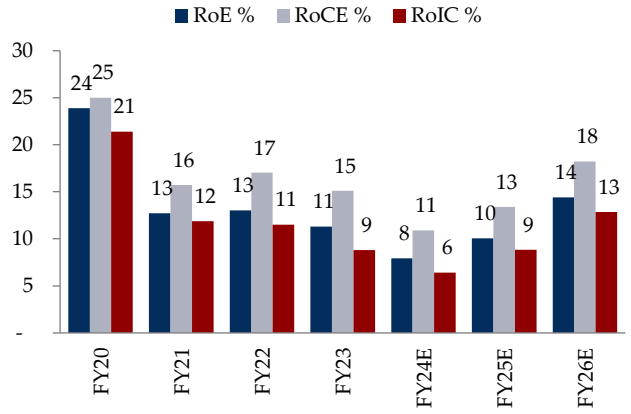
Source: Company, HSIE Research

Exhibit 7: Net working capital days to improve



Source: Company, HSIE Research

Exhibit 8: Return ratios to improve

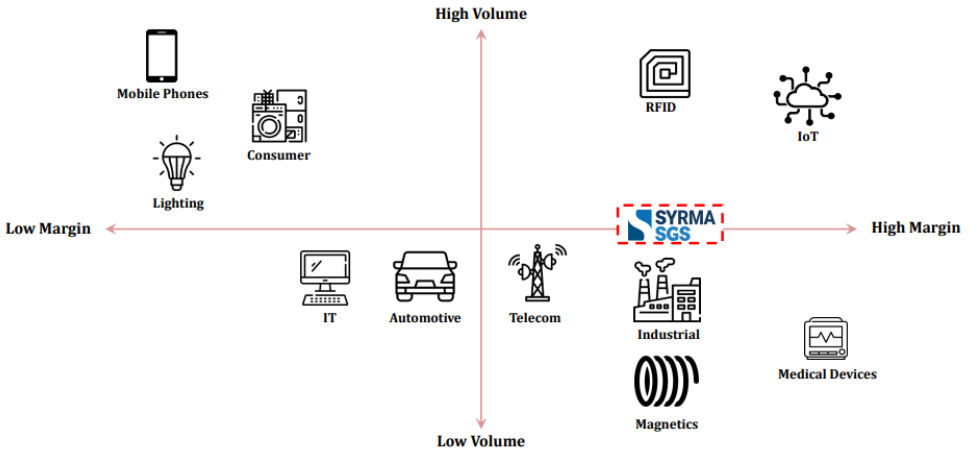


Source: Company, HSIE Research

Diversified business model

Over the years, Syrma has diversified its business model both in terms of product offerings and industry verticals. It is one of the leading Indian PCBA manufacturers and among the top global manufacturers of custom RFID tags. In FY23, PCBA contributed 66% to revenues while the box-build/RFID & magnetics mix stood at 18/16% respectively. In terms of end-use industries, Syrma caters to various industries like automotive, healthcare, IT, industrial appliances, energy management, water purification, power supply, and consumer products. Automotive, consumer and industrial together contributed 80%+ of FY23 revenues. Syrma has historically focused on high-mix low-volume categories which offer higher margins.

Exhibit 9: Presence across verticals

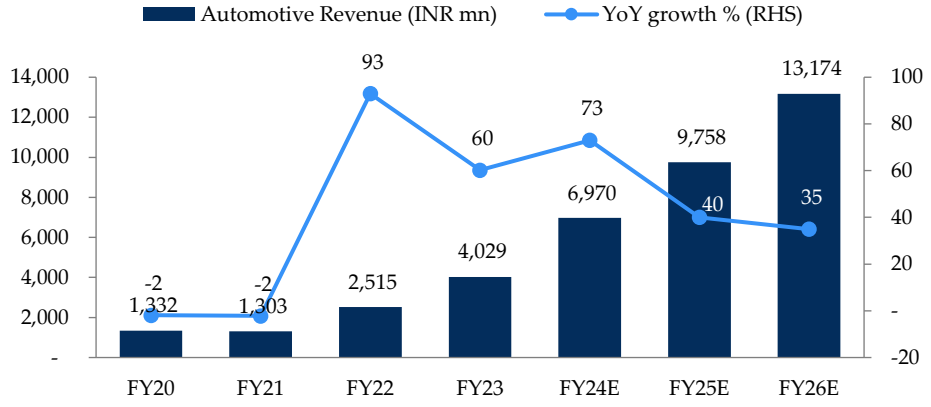


Source: Company, HSIE Research

Robust growth momentum across all key verticals

- **Automotive (20% of FY23 revenue):** Over FY19-23, Syrma's automotive segment has been a key growth driver with revenue registering a 31% CAGR, led by the EV segment. Under this segment, Syrma offers a comprehensive suite of electronic solutions across both ICE and electric vehicle (EV) segments. Rising demand/penetration of EVs and increasing electronics components usage within automobiles are to be key growth drivers in the medium to long term. Within EVs, Syrma has a higher mix of 2W vs 4W. We expect segment revenue to grow at 48% CAGR over FY23-26E with moderate improvement in margins on higher EV mix.

Exhibit 10:Automotive revenue to grow at 48% CAGR over FY23-26E



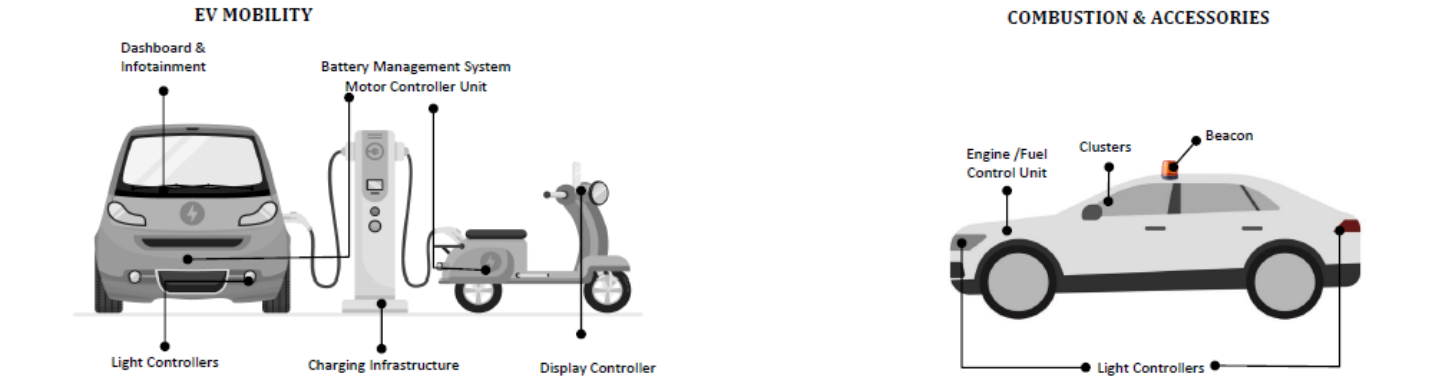
Source: Company, HSIE Research

Top Customers

TVS

Other Large OEMs catering to Electric and Combustion vehicles

Exhibit 11: Syrma's offerings within the automobile industry

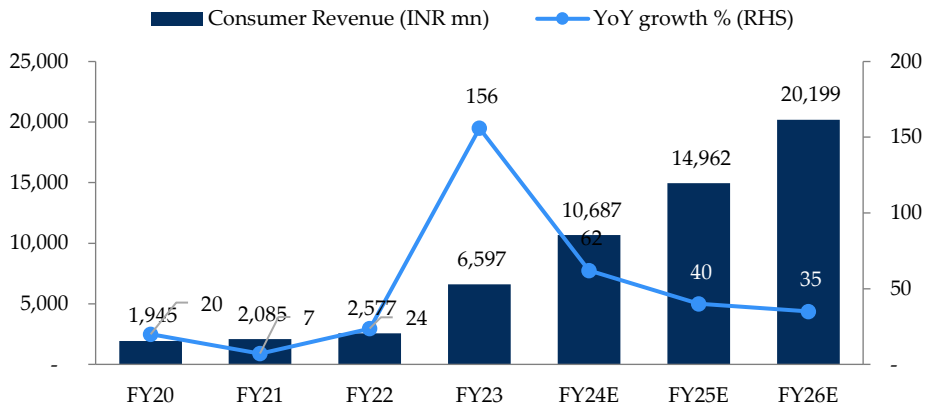


Source: Company; HSIE Research

- **Consumer (32% of FY23 revenue):** Syrma's consumer segment primarily consists of smart consumer electronics & BLDC systems, FASTag & RFID applications, 5G subscriber devices and water purification & cleansing. Over FY19-23, revenue in this segment grew by 42%. Low penetration across most product categories, rising consumer aspirations and increasing demand for smart consumer electronics are key growth drivers. The increasing mix of prescriptive business vs ODM over the last few quarters has led to a dip in material margins for the segment. However, this comes with better working capital and higher asset turns. The order book remains healthy with new client additions in the pipeline. We expect segment revenue to grow at 45% CAGR over FY23-26E while margins to remain stable.

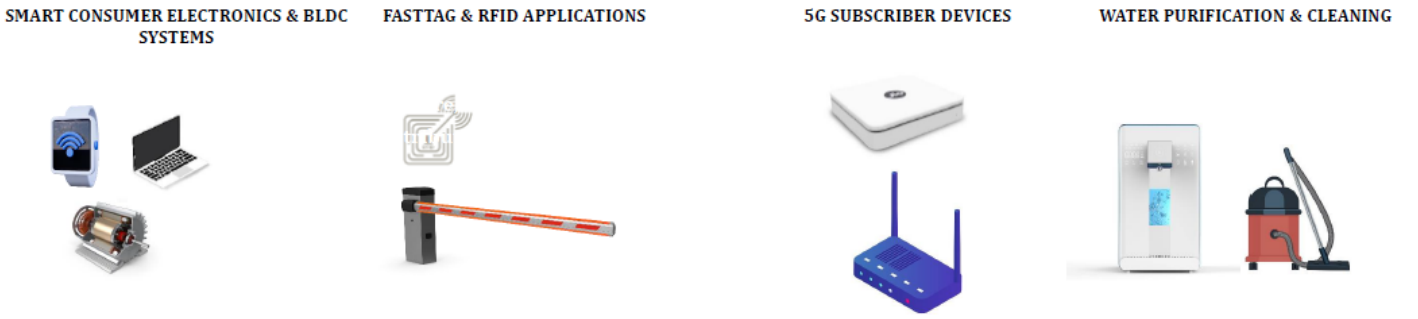
Top Customers

Exhibit 12: Consumer revenue to grow at 45% CAGR over FY23-26E



Source: Company, HSIE Research

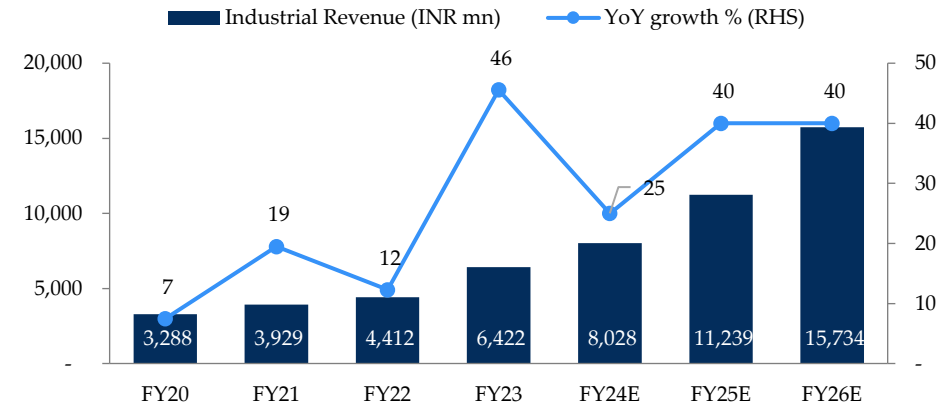
Exhibit 13: Syrma's offerings within the consumer industry



Source: Company; HSIE Research

- **Industrial (31% of FY23 revenue):** Over FY19-23, Syrma's industrial segment revenue grew at 20% CAGR. Under this segment, Syrma's key offerings include smart energy meters, industrial power supplies, solar controllers, industrial cleaning & printing and 5G infrastructure & smart cities. Given smart meters are still in the nascent stage of adoption in India, there exists an immense runway for growth as it is being promoted as a solution to several problems in the power industry. Moreover, industry 4.0 is seeing a convergence of digitization and automation technologies. Lately, Syrma has onboarded more client, revenues which are going to flow in from FY25. We expect segment revenue to grow at 35% CAGR over FY23-26E with improvement in margins led by better mix.

Exhibit 14: Industrial revenue to grow at 35% CAGR over FY23-26E

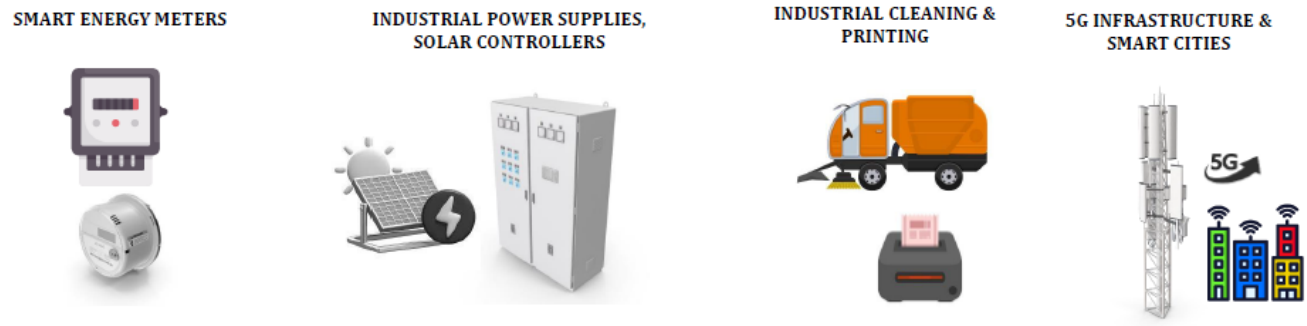


Source: Company, HSIE Research

Top Customers

Total Power Europe
PHOENIX CONTACT
CYANCONNODE

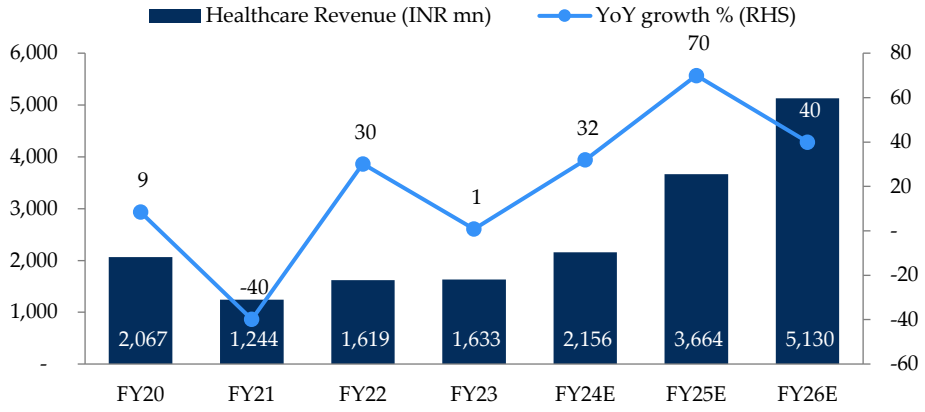
Exhibit 15: Syrma's offerings within the industrial segment



Source: Company; HSIE Research

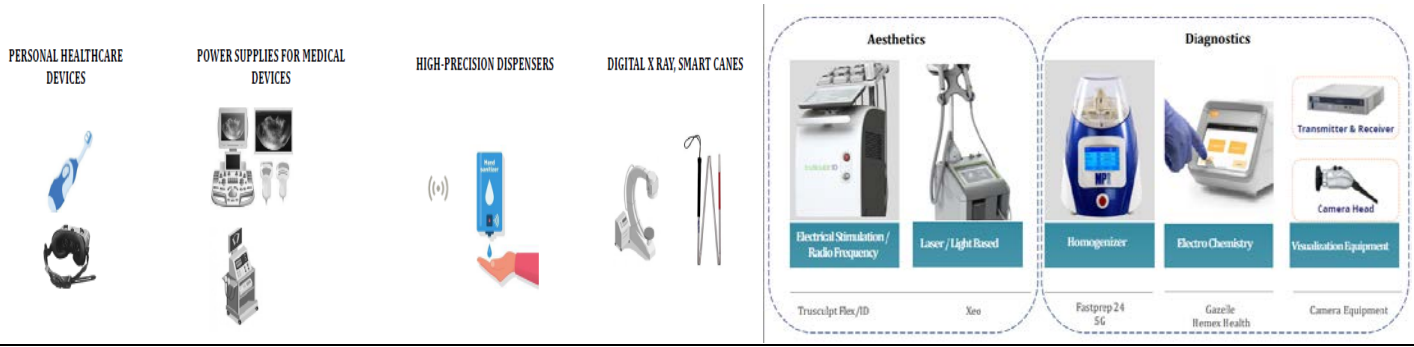
- **Healthcare (8% of FY23 revenue):** Symra's healthcare business (largely RFID-led) is largely export-led and includes offerings in the form of personal healthcare devices, power supplies for medical devices, high-precision dispensers, digital x-rays and smart canes. Given the largely discretionary nature of the offerings, the inflation-led global slowdown (especially in the Western countries) had an impact on the segment revenue (-4% CAGR over FY19-23). However, with initial signs of revival seen, Syrma expects the business to recover to earlier levels in the coming years. Moreover, they acquired Johari Digital (FY23 revenue of INR 1.6bn) in Aug'23 and have onboarded a new CEO to drive the business. We expect segment revenue to grow at 46% CAGR over FY23-26E with an improvement in margins.

Exhibit 16: Healthcare revenue to grow at 46% CAGR over FY23-26E



Source: Company, HSIE Research

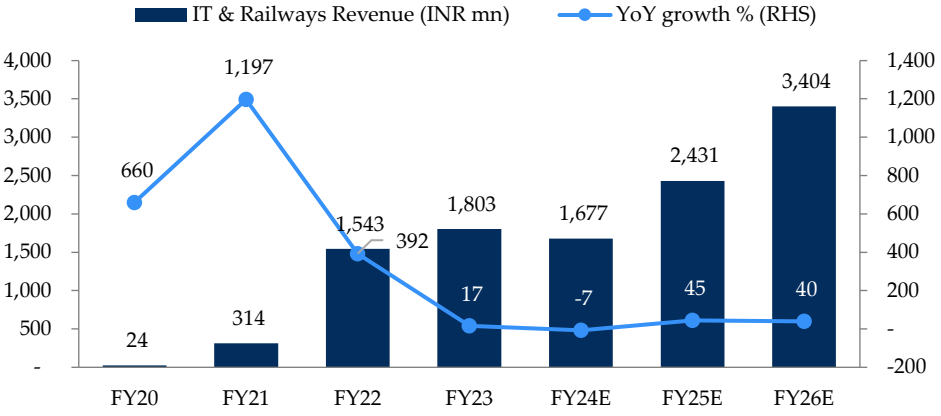
Exhibit 17: Syrma's offerings within the healthcare segment



Source: Company; HSIE Research

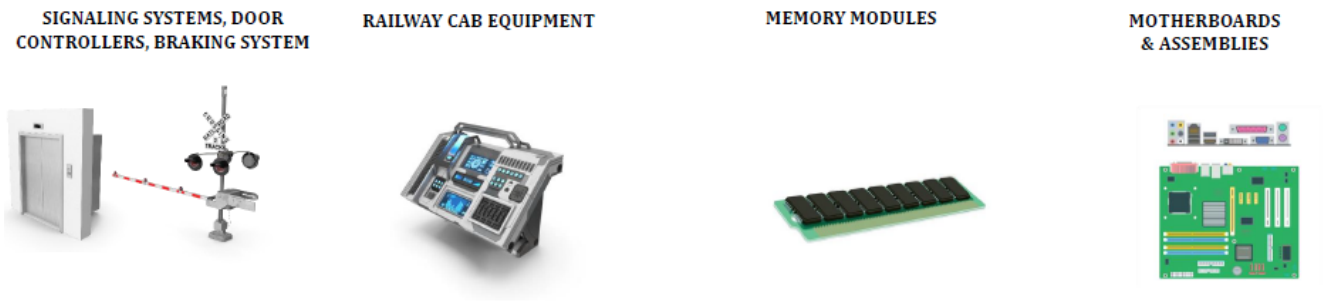
- **IT & Railways (9% of FY23 revenue):** In this segment, Syrma partners with leading locomotive companies and laptop manufacturers offering signalling systems, door controllers, braking systems, railway cab equipment, memory modules, motherboards & assemblies. Modernization of railway infrastructure and the government's push on indigenizing IT Hardware manufacturing are to be the growth drivers in the medium to long term. For Syrma, this segment has been the fastest growing, albeit on a low base. Syrma has recently received approval from the Research Designs and Standards Organization (RDSO) for signalling equipment, which shall help to grow at a faster clip. Within IT, Syrma is a beneficiary of the government's IT Hardware 2.0 PLI. We expect segment revenue to grow at 24% CAGR over FY23-26E.

Exhibit 18: IT & Railways revenue to grow at 24% CAGR over FY23-26E



Source: Company, HSIE Research

Exhibit 19: Consistent track record of entering and scaling up new segments



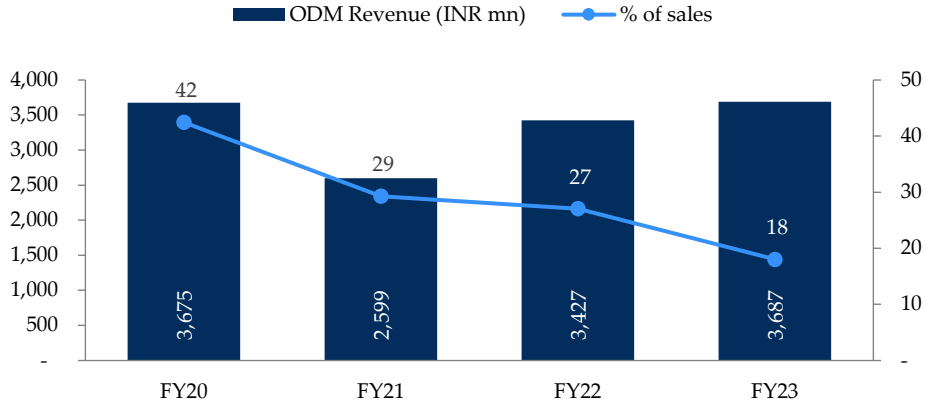
Source: Company; HSIE Research

Strong ODM capabilities

- Syrma's offerings also include design and engineering services and original design manufacturing (ODM) services primarily focused on healthcare, industrial and automotive industries. This has not only helped increase wallet share with existing customers but also led to the addition of new customers.
- Syrma works with engineering teams of their customers wherein they provide integrated services to OEMs, from the initial product concept stage to volume production through concept co-creation and product realization. The ultimate target is to transition to bulk manufacturing once the initial designs are approved.
- In FY23, ODM services contributed 18% of Syrma's revenues. We note that this number has come down over the past three years, largely on account of (1) the slowdown in the global economy (exports form a significant part of ODM revenues); and (2) faster growth in the domestic market. In the medium to long term, Syrma is aiming for ODM to contribute towards one-fourth of its revenues.

Syrma is targeting 25% contribution from ODM in medium-long term.

Exhibit 20: ODM mix over the years



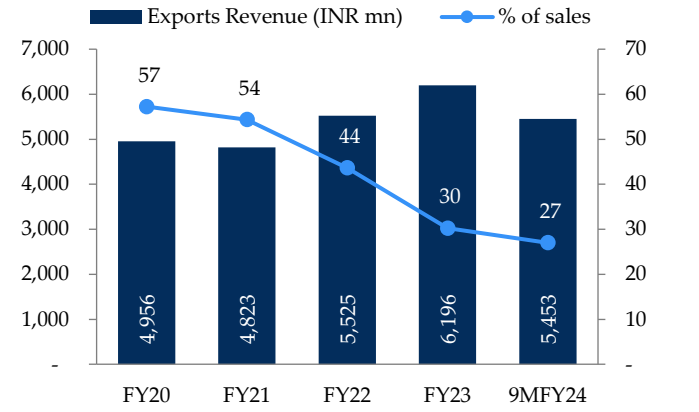
Source: Company, HSIE Research

Export momentum impacted by weak global cues; to be a key growth driver

- Syrma's strategically located manufacturing facilities in Tamil Nadu, Karnataka and Haryana enable it to meet export demand efficiently. In FY23, exports contributed 30% of Syrma's revenue. It exports to 24+ countries including the US, Germany, Austria and the UK. The US and Germany accounted for 65%+ of export revenues in FY23. One of Syrma's R&D facilities is located in Germany, which facilitates smoother operations and helps meet the requirements of the European market.

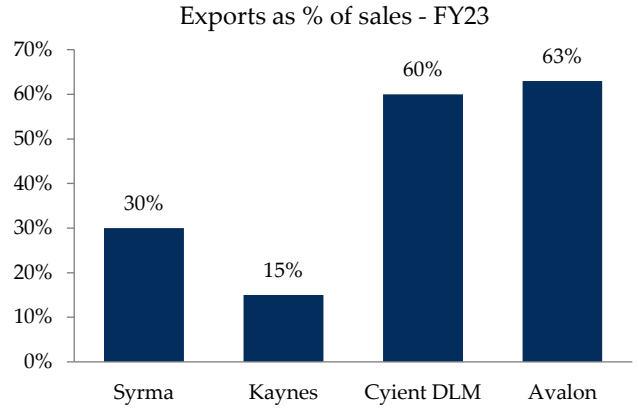
- Over the last couple of years, the momentum of exports has been impacted by the slowdown in global economies. However, exports remain a key focus area and the management is targeting one-third contribution from exports, given (1) better margin profile; (2) longer visibility of contracts; and (3) natural hedge against forex volatility as +60%+ raw materials are currently imported.

Exhibit 21: Aim is to increase export mix to 33%



Source: Company, HSIE Research

Exhibit 22: Export mix vs peers

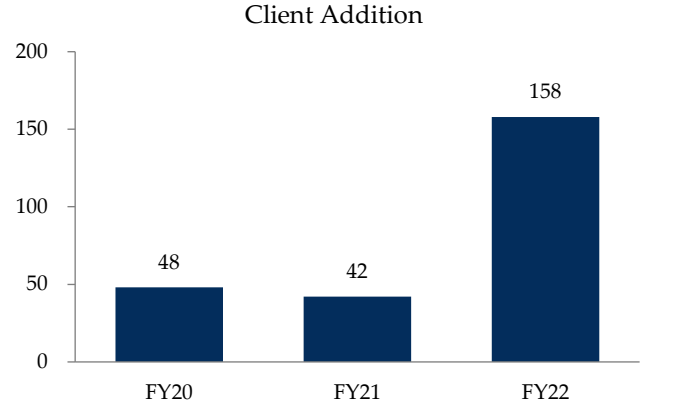


Source: Company, HSIE Research

Established relationships with marquee customers

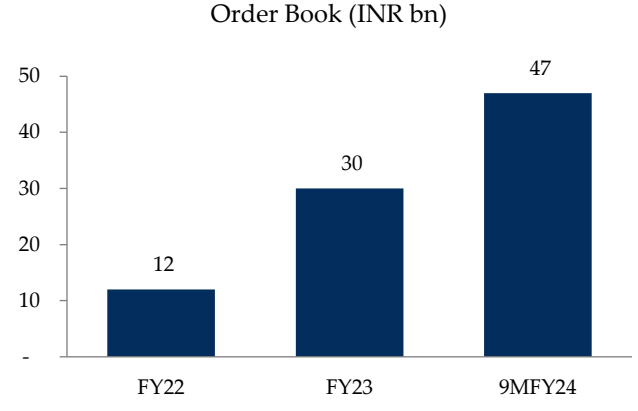
- Syrma has forged strong long-standing relationships with well-known customers across the end-use industries they cater to, given their diverse product offerings, integrated services, and focus on quality and reliability. This is a testament to the fact that in the past five years, there has been no product recall nor any instance of legal proceedings/claims by their customers. Any issues raised by customers are immediately addressed by a dedicated team of customer-specific program managers (average turnaround time of around 24 hours).
- Few of Syrma's marquee customers: **Automotive:** TVS Motor; **Consumer:** Eureka Forbes, Atomberg, AO Smith, Robert Bosch Engineering, Fastag, HUL; **Industrials:** CyanConnode, Total Power, Phoenix Contact; **Healthcare:** Phillips.
- Syrma catered to 270+ customers across 20+ countries in FY23, of which many customers have been associated with them for the past 10+ years. Syrma's wide customer base across various sectors reduces dependence on any one end-use industry and provides a natural hedge against market instability in a particular end-use industry.

Exhibit 23: Increase in customer onboarding...



Source: Company, HSIE Research

Exhibit 24:...will help sustain order book momentum



Source: Company, HSIE Research

Has not shied away from the inorganic route to expand portfolio/geography

Year	Company Acquired
2014	Tovya Automation
2016	3G Wireless
2020	SGS Tekniks
2021	Perfect ID
2023	Johari Digital

- In conjunction with its organic growth strategies, Syrma has taken the acquisition route over the years to expand its portfolio, market share as well as geographical footprint in the EMS sector.
- Their acquisition of Tovya Automation (2014) and merger with 3G Wireless Communication (2016) provided access to technical know-how which allowed Syrma to expand their IoT-related product offerings. Moreover, it allowed them to meet the pre-qualification criteria applicable to certain government tenders.
- More recently, Syrma acquired SGS Teknis (2020-21) and Perfect ID (2021-22). The SGS Tekniks acquisition provided ample headroom for growth with no customer/geography overlap. Perfect ID helped acquire infrastructure and know-how for manufacturing of RFID labels and passive inlay tags. In August 2023, Syrma acquired Johari Digital acquisition (2023) which has helped them foray into the large, fragmented and fast-growing medical devices segment.
- Going ahead, Syrma will continue to explore strategic expansion through inorganic opportunities, given (1) it allows for enhanced scale and market position; (2) it leads to the strengthening of the range of product offerings and customer base; and (3) it enables access to new clients as well as cost-effectively entering high-growth geographies.

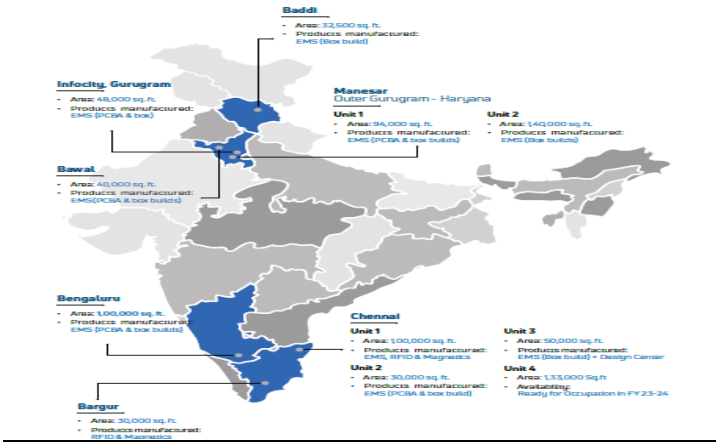
Syrma's Management Team:

Name	Role	Experience (in years)	Comments
Sandeep Tandon	Executive Chairman	18+	✓ 18+ years of experience in electronics manufacturing sector. ✓ Bachelor of science in electrical engineering; YPO President's Program from Harvard Business School ✓ Ex Celetronix Inc., USA.
Jasbir Gujral	Managing Director	40+	✓ 40+ years of leadership experience in electronics design and manufacturing. ✓ Founding member of SGS Tekniks Private Limited.
Satendra Singh	CEO	30+	✓ Experience in operations, strategic planning, global supply chain, and manufacturing. Has deep knowledge of Indian and global industry. ✓ He was most recently Global Head of Hardware Service Delivery at Nokia. Also held several leadership positions over a 15 year period. ✓ Prior to Nokia, he served as Director Operations at Flextronics and was Flex's business head in India. ✓ Master's degree in manufacturing management from BITS Pilani. Advanced management program from IIM Bangalore.
Krishna Kumar Pant	Co-Founder & Head – Domestic Business	39+	✓ 39+ years of experience in Marketing and Management. ✓ Founding member of SGS Tekniks Private Limited.
Ranjit Singh	Co-Founder & Head – International Business	40+	✓ 40+ years of experience in the Electronics Industry. ✓ Founding member of SGS Tekniks Private Limited.
Sreeram Srinivasan	CEO, SETS	30+	✓ 30+ years of leading experience in Business Operations. ✓ Ex MD of Saint Gobain and CEO of MTAR.
Bijay Agarwal	CFO	16+	✓ 16+ years of experience in finance and business strategy. ✓ Ex Motorola India Pvt Ltd., Dalmia Bharat.
Nagraj Raghavendra	President – North	28+	✓ 28+ years of experience in operations in the electronics industry. ✓ Ex Jabil, Celetronix
NG Sreedharan	President – Soith	30+	✓ 30+ years of experience in electronics industry and research. ✓ Ex Tata Institute of Fundamental Research, Celetronix

Strong manufacturing base with R&D capabilities

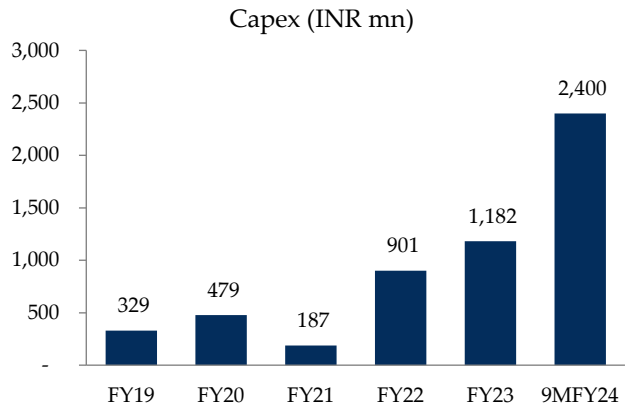
- Syrma operates through 13+ strategically located manufacturing facilities (north and south India) with more in the works. It caters to the export demand (30% of FY23 revenue) through its facilities located in Tamil Nadu, Karnataka, and Haryana.
- Keeping the visible industry tailwinds in mind, Syrma has stepped up its capex outlay having spent c.INR 3.5bn over the past 21 months with another INR 2bn to be spent in the coming 12-18 months.
- During 9MFY24, Syrma commissioned a new facility in Gurugram and Noida. Moreover, it is in the process of setting up a new facility in Bawal and Pune.
- The manufacturing infrastructure enables it to undertake a high mix of products with flexible production volume requirements.

Exhibit 25: Manufacturing facilities



Source: Company, HSIE Research

Exhibit 26: Stepped up capex outlay



Source: Company, HSIE Research

- With a focus on vertical integration, Syrma manufactures various electromagnetic parts such as transformers and chokes, which are required for the manufacturing of PCBA products. This helps in increasing efficiency in terms of cost as well as reducing the lead time required for procurement of these components.
- Moreover, within RFID, leveraging its state-of-the-art injection moulding machines, Syrma also manufactures customized RFID tags in addition to RFID sensors.
- Syrma possesses a resilient supplier network that encompasses both domestic and international suppliers spanning 19 countries, including the United States, Singapore, and China.
- Working with a supplier network of 850+, Syrma is not reliant on any single supplier for any of the raw materials and components. Such a diverse network of suppliers ensures that the supply chain remains unaffected in case any of the suppliers are unable to (or refuse to) supply.

Strong R&D capabilities

- Cognizant of the importance of R&D to retain a competitive edge in the market, Syrma operates three dedicated R&D facilities, two of which are in India (Chennai and Gurugram) while one is in Stuttgart, Germany. Having an R&D centre in Germany (through the SGS Tekniks acquisition) enables Syrma to provide a near-shore interface for European customers. This facilitates smoother operations and helps to meet the requirements of the European market.
- Syrma's R&D facilities comprise cutting-edge infrastructure, facilitating advanced exploration and innovation. The R&D team of 100+ full-time employees carry out projects from initial conceptualization to market launch, validate design efficacy and ensure regulatory compliance. The R&D teams help develop internal proof of concepts and intellectual properties (IP) tailored to specific industry vertical applications. This enables acceleration of new product development (NPD) timelines for customers, thereby providing them with a significant time-to-market advantage.
- As a part of its R&D initiatives, Syrma endeavours to (1) optimize current product offerings by improving cost efficiencies and making value additions through the inclusion of additional or improved features and (2) take early advantage of technological advancements in the industry and analyze industry requirements and create products that address such requirements that have not been previously addressed.

Syrma's transformative client solutions:

Customer Problem	Syrma' Solution
Integration of RFID technology into Industrial Safety Harness	
A Fortune 100 multinational conglomerate's safety products division encountered several challenges while integrating RFID technology into their industrial safety harnesses. The initial designs were subject to supply chain disruptions and were expensive. Consequently, they sought a new OEM manufacturing partner who could collaborate with them to create cost-effective RFID tags with superior durability and equivalent read ranges.	Leveraging its team's profound expertise in RFID technology, Syrma conducted in-person meetings, furnished competitive pricing estimates and successfully delivered prototype HF tags compliant with ISO 15693 standards. Currently, Syrma serve as their exclusive supplier, providing them with an assortment of six distinct SKUs of these RFID tags. This accomplishment is a testament to Syrma's proficiency in developing and manufacturing cutting-edge RFID applications.
Revitalising safety lighting systems	
A leading global OEM of safety lighting systems witnessed issues with their existing manufacturing vendor and was searching for a reliable contract manufacturing partner. They assessed EMS suppliers in India, considering factors such as adaptability, cost reduction, contemporary designs and durable products for extreme conditions	Syrma emerged as one of the two finalists and participated in a virtual contest. The client was impressed with Syrma's dedicated project manager, best-of-breed technologies and advanced manufacturing processes, which culminated in the revamping of their entire vehicle product line. Syrma has established themselves as their preferred choice for customised EMS services owing to innovative designs and reasonable price points.
Launched cellular phone antennas in India	
	Syrma established local supply chains and manufacturing processes to reduce costs for a US client looking to launch their mobile phone antennas in the Indian market. By refining product specifications, optimising manufacturing methods and localising the supply chain, Syrma assisted them in achieving a considerable reduction in production costs (40%). This enabled them to enter the highly competitive Indian market profitably and gain a substantial market share.
Innovative solutions for compact camera assembly and packaging	
A global camera development services company sought an end-to-end manufacturing solution for assembling fine-pitch camera imaging components. The Company faced various challenges, including the need to accommodate complex assemblies within limited spatial constraints and the requirement for comprehensive failure analysis.	Syrma delivered prototypes, implemented design improvements, optimised production techniques and successfully achieved cost reduction. Moreover, Syrma efficiently enhanced packaging and distribution processes, solidifying its position as a reliable EMS partner for the client's growing range of imaging products.

Financials and valuation

Revenue to grow at 41% CAGR over FY23-26E

We expect revenue to grow at a CAGR of 41% over FY23-26E led by 48/45/46% CAGR in automotive/consumer/healthcare. The industrial segment is expected to see 35% CAGR while IT & Railways could grow at 24% CAGR over the same period.

- **Automotive:** The increasing electronics components usage within automobiles and rising penetration of EVs (especially 2W) may be key growth drivers. Syrma's EV business has higher 2W saliency vs 4W. Syrma will continue to look to add more customers and increase wallet share amongst existing customers. We expect segment revenue to grow at 48% CAGR over FY23-26E.
- **Consumer:** Low penetration across most product categories, rising consumer aspirations and increasing demand for smart consumer electronics will be key growth drivers. Order books remain healthy with new client additions in the pipeline. We expect segment revenue to grow at 45% CAGR over FY23-26E
- **Industrial:** Growth will be led by (1) increased smart meters adoption; (2) manufacturing companies investing in digitization/automation; and (3) export opportunity. Syrma has onboarded more clients, revenues of which are going to flow in from FY25. We expect revenues to grow at 35% CAGR over FY23-26E
- **Healthcare:** Syrma's healthcare segment is largely export-led, which has been impacted due to a slowdown in global discretionary spending. However, with early signs of recovery visible, we expect business to recover to earlier levels in the coming years. Moreover, they acquired Johari Digital (FY23 revenue of INR 1.6bn) in Aug'23 and have onboarded a new CEO to drive the business. We expect segment revenue to grow at 46% CAGR over FY23-26E
- **IT & Railways:** Segment growth will be led by the railways segment where Syrma has received RDSO approval for signaling equipment. Modernization of railway infrastructure and the government's push on indigenizing IT Hardware manufacturing are to be the growth drivers in the medium to long term. We expect segment revenue to grow at 24% CAGR over FY23-26E.

Exhibit 27: Key Revenue assumptions

Year End (March)	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
Revenue (INR mn)							
Automotive	1,332	1,303	2,515	4,029	6,970	9,758	13,174
Consumer	1,945	2,085	2,577	6,597	10,687	14,962	20,199
Healthcare	2,067	1,244	1,619	1,633	2,156	3,664	5,130
Industrial	3,288	3,929	4,412	6,422	8,028	11,239	15,734
IT & Railways	24	314	1,543	1,803	1,677	2,431	3,404
Total	**8,657**	**8,874**	**12,666**	**20,484**	**29,517**	**42,054**	**57,640**
Revenue Growth %							
Automotive	-2	-2	93	60	73	40	35
Consumer	20	7	24	156	62	40	35
Healthcare	9	-40	30	1	32	70	40
Industrial	7	19	12	46	25	40	40
IT & Railways	660	1197	392	17	-7	45	40
Total	**9**	**3**	**43**	**62**	**44**	**42**	**37**
Revenue Mix %							
Automotive	15	15	20	20	24	23	23
Consumer	22	23	20	32	36	36	35
Healthcare	24	14	13	8	7	9	9
Industrial	38	44	35	31	27	27	27
IT & Railways	0	4	12	9	6	6	6
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Source: Company, HSIE Research

EBITDA and PAT to grow at 35/32% CAGR over FY23-26E

We estimate EBITDA will grow at a CAGR of 35% over FY23-26E while we expect margins to improve by 80bps over FY24 to 8%. The dip in the margin performance over FY23 is a function of the change in the industry mix in favour of prescriptive business (which has higher asset turns and lower working capital requirements). We note that there is no deterioration in the material margin of individual segments. We estimate PBT will grow by 34% while PAT will grow at 32% CAGR.

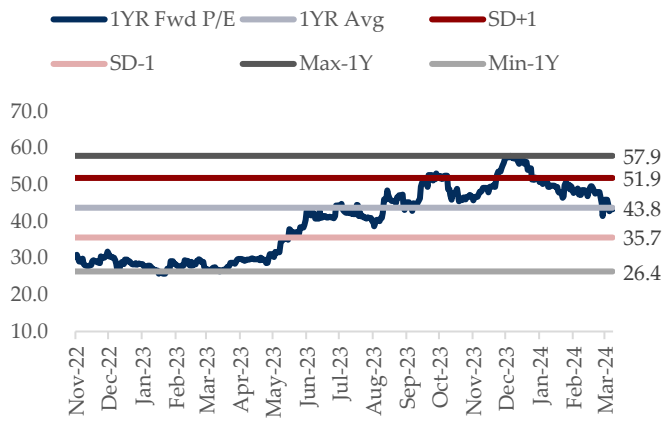
Valuation

Over FY19-23, Syrma's revenue/EBITDA/PAT has grown at 27/20/23% CAGR, primarily led by the automotive, consumer and industrial sectors. On the other hand, the high-margin export focused healthcare vertical has been impacted by an inflation-led reduction in discretionary spending (mix down from 24% to 8%). We note that, while there is no deterioration of individual vertical material margins, changing business mix in favour of consumer and automotive (which are relatively lower margin) from healthcare and industrial (higher margin) has impacted margins.

We estimate revenue/EBITDA/PAT will grow at 41/35/32% over FY23-26E led by (1) robust growth momentum across all key verticals; (2) strengthening the core competitiveness of technology innovation; (3) entering new industries, new customers addition and increasing wallet share with existing customers; (4) pursuing inorganic growth opportunities; and (5) strong manufacturing footprint with R&D capabilities. We expect return rations to improve hereon on improving scale of operations and working capital efficiency.

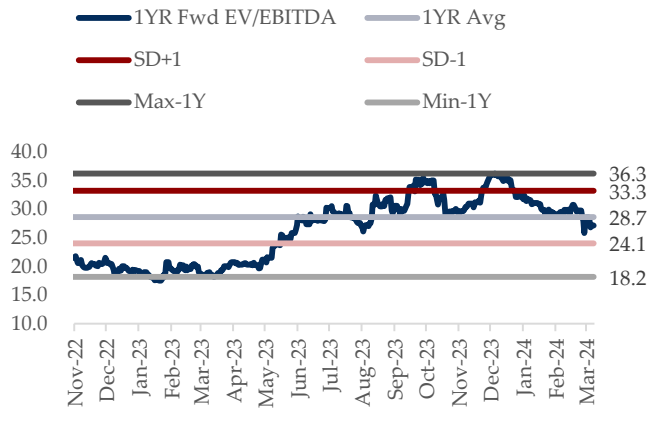
We initiate coverage on Syrma with a BUY rating and value the stock at 40x FY26 earnings to arrive at a TP of INR 620. Currently the stock is trading at 50x/31x FY25E/FY26E earnings. Based on reverse DCF (WACC: 11.5%; terminal growth rate: 5%) at CMP, implied revenue/EBIT CAGR over the next decade is 30/31%, which in our view, looks achievable given a long runway for growth with India's EMS industry being at an inflection point.

Exhibit 28: Syrma is trading at 43x 1-year forward P/E…



Source: Bloomberg, HSIE Research

Exhibit 29: … and 27x 1-year forward EV/EBITDA



Source: Bloomberg, HSIE Research

Key Risk

- A subdued demand environment can lead to delays in orders from clients.
- Lack of component ecosystem in India and volatility in forex rates.
- Inability to grow ODM and export business.
- Any change in government policies.

Annexure

Board of Directors

Name		Management Role
Family/Promoter Representation on Board of Directors		
Sandeep Tandon	Executive Chairman	Yes
Jasbir S. Gujral	Managing Director	Yes
Jaideep Tandon	Non-Executive Director	No
Other Board of Directors		
Jayesh Doshi	Non-Executive Director	Yes
Bharat Anand	Independent Director	
Kunal Shah	Independent Director	
Smita Jatia	Independent Director	
Hetal Gandhi	Independent Director	
Anil Nair	Independent Director	

Auditors list

Name	
Deloitte Haskins & Sells LLP	Statutory Auditor
J C Bhalla and Associates	Internal Auditor
M/s Umesh Sagta & Associates	Cost Auditor
M/s MMJB & Associates LLP	Secretarial Auditors

Financials

Consolidated P&L

Year End (March) - INR mn	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
Net Revenues	**8,657**	**8,874**	**12,666**	**20,484**	**29,517**	**42,054**	**57,640**
Growth (%)	8.9	2.5	42.7	61.7	44.1	42.5	37.1
Material Expenses	5,541	5,980	8,921	15,405	22,745	32,318	44,094
Employee Expense	529	571	750	1,060	1,432	2,040	2,796
Other Expenses	1,221	1,324	1,735	2,142	3,214	4,555	6,126
EBITDA	**1,366**	**999**	**1,260**	**1,878**	**2,127**	**3,142**	**4,624**
EBITDA Growth (%)	**51.1**	**(26.8)**	**26.1**	**49.0**	**13.3**	**47.7**	**47.2**
EBITDA Margin (%)	**15.8**	**11.3**	**9.9**	**9.2**	**7.2**	**7.5**	**8.0**
Depreciation	191	228	249	312	512	686	812
EBIT	**1,175**	**772**	**1,010**	**1,566**	**1,615**	**2,456**	**3,813**
Other Income (Including EO Items)	143	169	177	437	579	497	550
Interest	128	71	80	216	364	382	398
PBT	**1,190**	**869**	**1,108**	**1,787**	**1,830**	**2,571**	**3,966**
Total Tax	219	213	343	556	448	630	972
Profit before JV/Associates/NCI	**971**	**656**	**764**	**1,231**	**1,382**	**1,941**	**2,994**
Share of JV/Associates	0	-1	0	-0	-	-	-
Non-controlling Interest	31	25	42	38	120	225	259
Exceptional Gain/ (loss)	-56	-	-	-	-14	-	-
RPAT	**884**	**630**	**722**	**1,193**	**1,248**	**1,716**	**2,735**
Adjusted PAT	**940**	**630**	**722**	**1,193**	**1,261**	**1,716**	**2,735**
APAT Growth (%)	**79.1**	**(33.0)**	**14.6**	**65.2**	**5.7**	**36.0**	**59.4**
EPS	**6.8**	**4.6**	**5.2**	**6.7**	**7.1**	**9.7**	**15.5**
EPS Growth (%)		**(33.0)**	**14.6**	**28.6**	**5.7**	**36.0**	**59.4**

Consolidated Balance Sheet

Year End (March) - INR mn	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
SOURCES OF FUNDS							
Share Capital - Equity	7	7	1,376	1,768	1,768	1,768	1,768
Other Equity	4,535	5,355	4,344	13,635	14,618	16,051	18,397
Total Shareholders Funds	**4,542**	**5,363**	**5,721**	**15,403**	**16,386**	**17,819**	**20,165**
NCI	41	66	108	26	146	371	630
Long Term Debt	319	256	39	870	866	663	463
Short Term Debt	815	669	1,903	2,599	4,132	4,205	4,611
Total Debt	**1,134**	**925**	**1,942**	**3,468**	**4,999**	**4,869**	**5,074**
Net Deferred Taxes	79	99	123	138	147	160	179
Other Non Current Liabilities	152	185	322	376	686	927	1,206
TOTAL SOURCES OF FUNDS	**5,948**	**6,639**	**8,216**	**19,411**	**22,364**	**24,146**	**27,255**
APPLICATION OF FUNDS							
Net Block	**2,015**	**2,004**	**2,340**	**3,837**	**6,378**	**7,409**	**8,265**
Goodwill	**1,182**	**1,182**	**1,182**	**1,182**	**3,216**	**3,216**	**3,216**
CWIP	12	0	408	253	325	250	250
Intangible assets	31	23	15	36	99	104	108
Right of Use Assets	115	95	238	269	676	754	825
Non Current Investments	30	35	51	60	60	60	60
Other Non Current Assets	211	296	294	7,511	4,079	2,205	368
Total Non-current Assets	**3,596**	**3,635**	**4,529**	**13,148**	**14,832**	**13,997**	**13,093**
Current-Investments	275	363	363	780	380	380	380
Inventories	1,419	1,789	2,913	5,874	6,550	8,872	11,844
Debtors	1,804	2,084	2,722	4,032	5,337	7,143	9,475
Cash & Equivalents	780	729	369	544	430	848	1,558
Other Current Assets	377	467	645	1,032	1,520	1,892	2,450
Total Current Assets	**4,655**	**5,432**	**7,013**	**12,264**	**14,218**	**19,137**	**25,707**
Creditors	1,731	1,902	2,405	4,881	5,661	7,835	10,265
Other Current Liabilities & Provns	572	526	921	1,120	1,026	1,154	1,280
Total Current Liabilities	**2,303**	**2,428**	**3,325**	**6,001**	**6,686**	**8,989**	**11,545**
Net Current Assets	**2,352**	**3,003**	**3,687**	**6,263**	**7,532**	**10,148**	**14,162**
TOTAL APPLICATION OF FUNDS	**5,948**	**6,639**	**8,216**	**19,411**	**22,364**	**24,146**	**27,255**

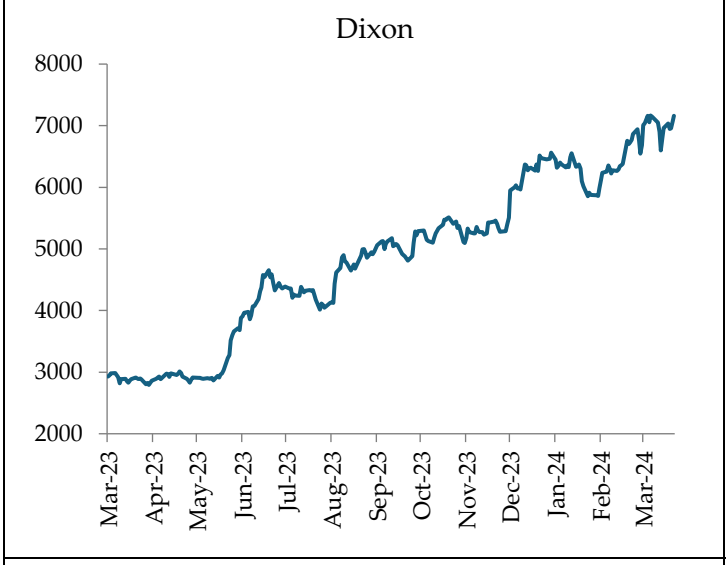
Consolidated Cash Flow

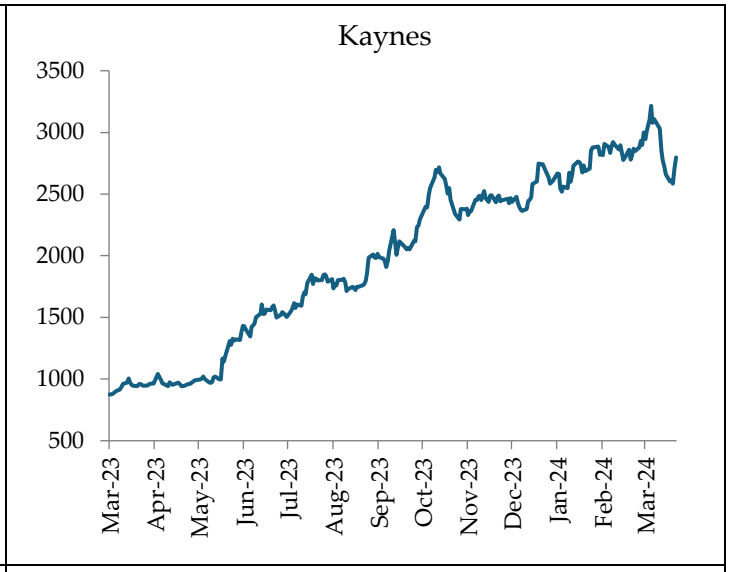
Year End (March) - INR mn	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
Reported PBT	1,190	868	1,108	1,787	1,830	2,571	3,966
Non-operating & EO Items	(45)	(77)	(62)	(321)	(237)	90	87
Interest Expenses	128	71	80	216	364	382	398
Depreciation	191	228	249	312	512	686	812
Working Capital Change	301	(498)	(1,212)	(2,299)	(1,783)	(2,198)	(3,305)
Tax Paid	(207)	(220)	(289)	(397)	(448)	(630)	(972)
OPERATING CASH FLOW (a)	**1,558**	**371**	**(126)**	**(703)**	**238**	**901**	**986**
Capex	(479)	(187)	(901)	(1,182)	(5,628)	(1,725)	(1,743)
Free Cash Flow (FCF)	*1,079*	*184*	*(1,027)*	*(1,885)*	*(5,390)*	*(825)*	*(757)*
Investments	(20)	(64)	8	(7,766)	400	(100)	(100)
Non-operating Income	8	16	12	-	296	201	211
Others	-	(887)	(3,111)	(196)	3,679	1,836	1,836
INVESTING CASH FLOW (b)	**(491)**	**(1,123)**	**(3,992)**	**(9,145)**	**(1,253)**	**212**	**205**
Debt Issuance/(Repaid)	(432)	(155)	1,021	1,523	1,530	(130)	206
Interest Expenses	(119)	(70)	(70)	(192)	(364)	(382)	(398)
FCFE	**767**	**99**	**64**	**(170)**	**(3,496)**	**(573)**	**(154)**
Share Capital Issuance	(45)	1,034	2,715	8,434	-	-	-
Dividend	(20)	-	-	-	(265)	(283)	(389)
Others	23	(93)	156	203	-	-	-
FINANCING CASH FLOW (c)	**(593)**	**716**	**3,821**	**9,967**	**901**	**(795)**	**(581)**
NET CASH FLOW (a+b+c)	**474**	**(36)**	**(297)**	**120**	**(114)**	**318**	**610**
EO Items, Others	(56)	-	-	-	(14)	-	-
Closing Cash & Equivalents	673	633	334	465	351	669	1,279

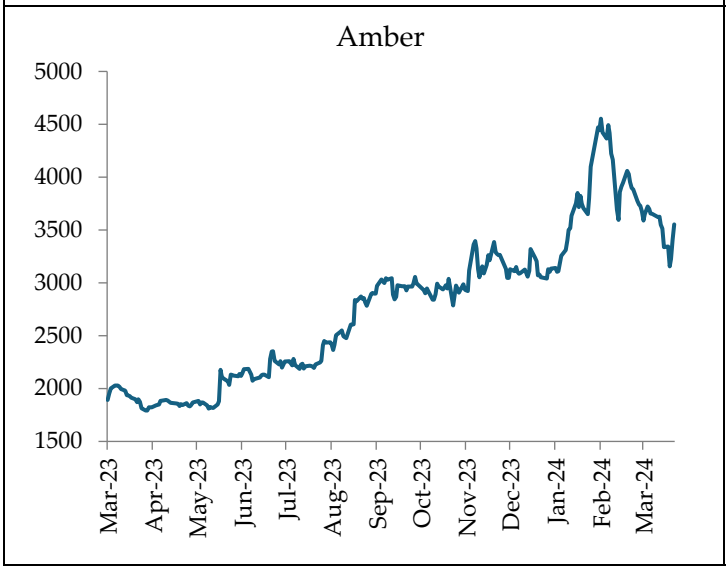
Ratios

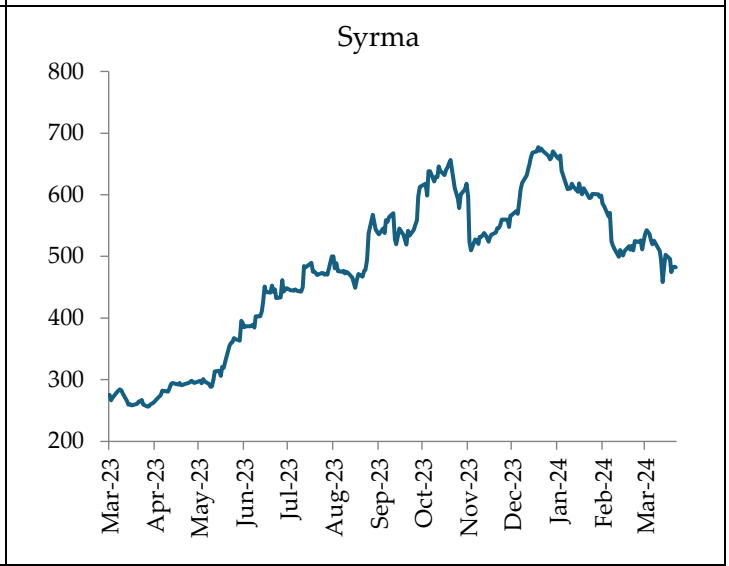
Year End (March)	FY20	FY21	FY22	FY23	FY24E	FY25E	FY26E
PROFITABILITY (%)							
GPM	36.0	32.6	29.6	24.8	22.9	23.2	23.5
EBITDA Margin (%)	15.8	11.3	9.9	9.2	7.2	7.5	8.0
EBIT Margin	13.6	8.7	8.0	7.6	5.5	5.8	6.6
PBT Margin	13.7	9.8	8.7	8.7	6.2	6.1	6.9
APAT Margin	10.9	7.1	5.7	5.8	4.3	4.1	4.7
RoE	23.9	12.7	13.0	11.3	7.9	10.0	14.4
RoIC (or Core RoCE)	21.4	11.9	11.5	8.8	6.4	8.8	12.9
RoCE	25.0	15.7	17.0	15.1	10.9	13.4	18.2
EFFICIENCY							
Tax Rate (%)	18.4	24.5	31.0	31.1	24.5	24.5	24.5
Fixed Asset Turnover (x)	4.4	3.9	4.9	5.5	4.8	5.0	5.8
Inventory (days)	60	66	68	78	81	77	75
Debtors (days)	77	80	69	60	66	62	60
Other Current Assets (days)	15	17	16	15	19	16	16
Payables (days)	70	75	62	65	70	68	65
Other Current Liab & Provns (days)	21	23	21	18	13	10	8
Cash Conversion Cycle (days)	61	66	70	70	83	77	77
Net D/E (x)	0.1	0.0	0.3	0.2	0.3	0.2	0.2
Interest Coverage (x)	9.2	10.8	12.7	7.3	4.4	6.4	9.6
PER SHARE DATA (Rs)							
EPS	6.8	4.6	5.2	6.7	7.1	9.7	15.5
CEPS	1,610.4	1,146.5	7.1	8.5	10.0	13.6	20.1
Dividend	-	-	-	1.5	1.6	2.2	3.3
Book Value	6,469.3	7,168.8	41.6	87.1	92.7	100.8	114.1
VALUATION							
P/E (x)	70.6	105.3	91.8	71.4	67.5	49.7	31.2
P/BV (x)	0.1	0.1	11.6	5.5	5.2	4.8	4.2
EV/EBITDA (x)	0.3	0.2	53.6	46.5	42.0	28.3	19.1
EV/Revenues (x)	0.0	0.0	5.3	4.3	3.0	2.1	1.5
OCF/EV (%)	373.2	191.7	(0.2)	(0.8)	0.3	1.0	1.1
FCF/EV (%)	258.5	95.0	(1.5)	(2.2)	(6.0)	(0.9)	(0.9)
FCFE/Mkt Cap (%)	226.6	27.4	0.1	(0.2)	(4.1)	(0.7)	(0.2)
Dividend Yield (%)	-	-	-	0.3	0.3	0.5	0.7

1 Yr Price movement









Rating Criteria

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

Disclosure:

I, **Paarth Gala, BCom** author and the name subscribed to this report, hereby certify that all of the views expressed in this research report accurately reflect our views about the subject issuer(s) or securities. SEBI conducted the inspection and based on their observations have issued advise/warning. The said observations have been complied with. We also certify that no part of our compensation was, is, or will be directly or indirectly related to the specific recommendation(s) or view(s) in this report.

Research Analyst or his/her relative or HDFC Securities Ltd. does not have any financial interest in the subject company. Also Research Analyst or his relative or HDFC Securities Ltd. or its Associate may have beneficial ownership of 1% or more in the subject company at the end of the month immediately preceding the date of publication of the Research Report. Further Research Analyst or his relative or HDFC Securities Ltd. or its associate does have/does not have any material conflict of interest.

Any holding in stock – NO

HDFC Securities Limited (HSL) is a SEBI Registered Research Analyst having registration no. INH000002475.

Disclaimer:

This report has been prepared by HDFC Securities Ltd and is solely for information of the recipient only. The report must not be used as a singular basis of any investment decision. The views herein are of a general nature and do not consider the risk appetite or the particular circumstances of an individual investor; readers are requested to take professional advice before investing. Nothing in this document should be construed as investment advice. Each recipient of this document should make such investigations as they deem necessary to arrive at an independent evaluation of an investment in securities of the companies referred to in this document (including merits and risks) and should consult their own advisors to determine merits and risks of such investment. The information and opinions contained herein have been compiled or arrived at, based upon information obtained in good faith from sources believed to be reliable. Such information has not been independently verified and no guaranty, representation of warranty, express or implied, is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. Descriptions of any company or companies or their securities mentioned herein are not intended to be complete. HSL is not obliged to update this report for such changes. HSL has the right to make changes and modifications at any time.

This report is not directed to, or intended for display, downloading, printing, reproducing or for distribution to or use by, any person or entity who is a citizen or resident or located in any locality, state, country or other jurisdiction where such distribution, publication, reproduction, availability or use would be contrary to law or regulation or what would subject HSL or its affiliates to any registration or licensing requirement within such jurisdiction.

If this report is inadvertently sent or has reached any person in such country, especially, United States of America, the same should be ignored and brought to the attention of the sender. This document may not be reproduced, distributed or published in whole or in part, directly or indirectly, for any purposes or in any manner.

Foreign currencies denominated securities, wherever mentioned, are subject to exchange rate fluctuations, which could have an adverse effect on their value or price, or the income derived from them. In addition, investors in securities such as ADRs, the values of which are influenced by foreign currencies effectively assume currency risk. It should not be considered to be taken as an offer to sell or a solicitation to buy any security.

This document is not, and should not, be construed as an offer or solicitation of an offer, to buy or sell any securities or other financial instruments. This report should not be construed as an invitation or solicitation to do business with HSL. HSL may from time to time solicit from, or perform broking, or other services for, any company mentioned in this mail and/or its attachments.

HSL and its affiliated company(ies), their directors and employees may; (a) from time to time, have a long or short position in, and buy or sell the securities of the company(ies) mentioned herein or (b) be engaged in any other transaction involving such securities and earn brokerage or other compensation or act as a market maker in the financial instruments of the company(ies) discussed herein or act as an advisor or lender/borrower to such company(ies) or may have any other potential conflict of interests with respect to any recommendation and other related information and opinions.

HSL, its directors, analysts or employees do not take any responsibility, financial or otherwise, of the losses or the damages sustained due to the investments made or any action taken on basis of this report, including but not restricted to, fluctuation in the prices of shares and bonds, changes in the currency rates, diminution in the NAVs, reduction in the dividend or income, etc.

HSL and other group companies, its directors, associates, employees may have various positions in any of the stocks, securities and financial instruments dealt in the report, or may make sell or purchase or other deals in these securities from time to time or may deal in other securities of the companies / organizations described in this report. As regards the associates of HSL please refer the website.

HSL or its associates might have managed or co-managed public offering of securities for the subject company or might have been mandated by the subject company for any other assignment in the past twelve months.
HSL or its associates might have received any compensation from the companies mentioned in the report during the period preceding twelve months from the date of this report for services in respect of managing or co-managing public offerings, corporate finance, investment banking or merchant banking, brokerage services or other advisory service in a merger or specific transaction in the normal course of business.
HSL or its analysts did not receive any compensation or other benefits from the companies mentioned in the report or third party in connection with preparation of the research report. Accordingly, neither HSL nor Research Analysts have any material conflict of interest at the time of publication of this report. Compensation of our Research Analysts is not based on any specific merchant banking, investment banking or brokerage service transactions. HSL may have issued other reports that are inconsistent with and reach different conclusion from the information presented in this report.
Research entity has not been engaged in market making activity for the subject company. Research analyst has not served as an officer, director or employee of the subject company. We have not received any compensation/benefits from the subject company or third party in connection with the Research Report.
HDFC securities Limited, I Think Techno Campus, Building - B, "Alpha", Office Floor 8, Near Kanjurmarg Station, Opp. Crompton Greaves, Kanjurmarg (East), Mumbai 400 042 Phone: (022) 3075 3400 Fax: (022) 2496 5066
Compliance Officer: Murli V Karkera Email: complianceofficer@hdfcsec.com Phone: (022) 3045 3600
For grievance redressal contact Customer Care Team Email: customercare@hdfcsec.com Phone: (022) 3901 9400
HDFC Securities Limited, SEBI Reg. No.: NSE, BSE, MSEI, MCX: INZ000186937; AMFI Reg. No. ARN: 13549; PFRDA Reg. No. POP: 11092018; IRDA Corporate Agent License No.: CA0062; SEBI Research Analyst Reg. No.: INH000002475; SEBI Investment Adviser Reg. No.: INA000011538; CIN - U67120MH2000PLC152193
Investment in securities market are subject to market risks. Read all the related documents carefully before investing. Mutual Funds Investments are subject to market risk. Please read the offer and scheme related documents carefully before investing.
Registration granted by SEBI, membership of BASL (in case of IAs) and certification from NISM in no way guarantee performance of the intermediary or provide any assurance of returns to investors.

HDFC Securities
Institutional Equities
Unit No. 1602, 16th Floor, Tower A, Peninsula Business Park,
Senapati Bapat Marg, Lower Parel, Mumbai - 400 013
Board: +91-22-6171-7330 www.hdfcsec.com