IPO Note

April 01, 2023

Avalon Technologies Limited

Issue Snapshot:
Issue Open: Apr 03 – Apr 06, 2023

Price Band: Rs. 415 – 436

*Issue Size: 865.0 cr (Fresh Issue of Rs 320.0 cr + Offer for sale of 545.0 cr)

Reservation for:

QIB	atleast	75% eq sh
Non-Institutional	upto	15% eq sh

((including 1/3rd for applications between Rs.2 lakhs to Rs.10 lakhs))

Retail	upto	10% eq sh

Face Value: Rs 2

Book value: Rs 26.37 (November 30, 2022)

Bid size: - 34 equity shares and in multiples thereof

100% Book built Issue

Capital Structure:

Pre Issue Equity:	Rs.	11.59 cr
*Post issue Equity:	Rs.	13.05 cr

Listing: BSE & NSE

Book Running Lead Managers: JM Financial Limited, DAM Capital Advisors Limited, IIFL Securities Limited, Nomura Financial Advisory and Securities (India) Private Limited

Sponsor Banks: ICICI Bank Ltd and HDFC Bank Ltd

Registrar to issue: Link Intime India Private Limited

Shareholding Pattern

Shareholding Pattern	Pre issue %	Post issue %
Promoter and Promoter Group	70.75	51.24
Public & Employee	29.25	48.76
Total	100.0	100.0

Background & Operations:

Avalon Technologies is one of the leading fully integrated Electronic Manufacturing Services ("EMS") companies with end-to-end operations in delivering box build solutions in India in terms of revenue in Fiscal 2022. *Report*), with a focus on high value precision engineered products. Through a unique global delivery model it provides a full stack product and solution suite, right from printed circuit board ("PCB") design and assembly to the manufacture of complete electronic systems ("Box Build"), to certain global original equipment manufacturers ("OEMs"), including OEMs located in the United States, China, Netherlands and Japan. Through its end-to-end operations, ARL's customers may achieve tangible benefits such as reduced manufacturing costs, improved supply chain management and reduced inventory obsolescence. Its capabilities include PCB design and assembly, cable assembly and wire harnesses, sheet metal fabrication and machining, magnetics, injection molded plastics and end-to-end box build of electronic systems. It specializes in manufacturing and providing design support for critical integrated assemblies, sub-assemblies, components and enclosures for multiple industry verticals. The end-use industries it caters to include a mix of established and long product lifecycle industries, such as industrial, mobility and medical devices and high growth "sunrise" industries, such as solar, electric vehicles and hydrogen in the clean energy sector and digital infrastructure in the communications sector.

ATL has developed long relationships with certain of its customers through a client servicing model which aims to provide fully integrated solutions, robust manufacturing capabilities, delivering quality products on time, supply chain efficiency as well as a focus on new product development. Its new product development approach typically starts with component level design engagement with customers. This allows it to be entrenched with the customer from the conception of their product, and subsequently move up the value chain with them by leveraging its fully integrated offerings. Certain of its key customers include Kyosan India Private Limited, Zonar Systems Inc., Collins Aerospace, e-Infochips Private Limited, The US Malabar Company, Meggitt (Securaplane Technologies Inc) and Systech Corporation, with whom it has had relationships for more than seven years. In addition to maintaining its relationships with existing customers, it has increased its key customer base over time from 54 customers in Fiscal 2020 to 62 customers in Fiscal 2021, to 81 customers in Fiscal 2022, increasing its order book (open order) from Rs. 5,046.72 million as of March 31, 2020, to Rs. 6,345.79 million as of March 31, 2021, to Rs. 8,578.69 million as of March 31, 2022

ATL has a unique global delivery model, comprising design and manufacturing capabilities across both India and the United States. It is the only Indian EMS company with full-fledged manufacturing facilities in the United States, which gives it a unique competitive advantage in the North American markets. It has 12 manufacturing units located across the United States and India: one unit in Atlanta, Georgia, one unit in Fremont, California, seven units in Chennai, Tamil Nadu, one unit in Kanchipuram, Tamil Nadu and two units in Bengaluru, Karnataka. In addition, it has a new facility in Chennai, Tamil Nadu, which is currently under construction and renovation. This enables it to offer clients local manufacturing services across these locations depending on their needs, and also leverage favorable policy initiatives such as the 'Make in India' program of the Government of India, leading to high customer retention and cost-efficient manufacturing. It is one of the leaders in the high mix, flexible volume product manufacturing segment and are present across multiple industry verticals with a focus on complex integrated solutions with significant engineering content, leading to profitability (in terms of gross margins/EBITDA margins)

ATL's business has expanded into products such as electric mobility, energy systems, satellite communications, and telematics, among others, that are used in industries such as clean energy and emerging communication technology, which according to the F&S Report are upcoming high growth sectors.

Objects of Issue:

The Offer comprises a Fresh Issue, aggregating up to Rs.3,200.00 million by ATL and an Offer for Sale aggregating up to Rs.5,450.00 million by the Selling Shareholders.

Offer for Sale

ATL will not receive any proceeds from the Offer for Sale. The proceeds of the Offer for Sale shall be received by the Selling Shareholders and will not form part of the Net Proceeds. Each Selling Shareholder will be entitled to its respective portion of the proceeds of the Offer for Sale after deducting its respective proportion of the Offer expenses and relevant taxes thereon.

Requirement of funds

ATV proposes to utilise the Net Proceeds towards funding the following objects (collectively referred to as the "Objects"):

- Prepayment or repayment of all or a portion of certain outstanding borrowings availed by the Company and one of its Material Subsidiaries, i.e. Avalon Technology and Services Private Limited ("ATSPL");
- Funding the working capital requirements of the Company; and
- General corporate purposes

In addition, ATL expect to achieve the benefits of listing of the Equity Shares on the Stock Exchanges which will result in the enhancement of its brand name and creation of a public market for its Equity Shares in India.

Sr.No	Particulars (Rs in million)	Total Estimated Cost
1	Prepayment or repayment of all or a portion of certain outstanding borrowings availed by ATL and one of its Material Subsidiaries, ATSPL	1,450.00
2	Funding the working capital requirements of the Company	900.00
3	General corporate purposes	*

Competitive Strengths

End-to-end integrated solutions, providing a "One Stop Shop" for electronics and electro-mechanical design and manufacturing services: With a focus on ATL's customers' needs, it offers an integrated and well diversified solution suite comprising PCB design and assembly, manufacture of cable assembly and wire harnesses, sheet metal fabrication, sheet metal machining, plastic injection molding, magnetics, and electro-mechanical integration, which combined allowed to offer end-to-end box build solutions. It is one of the few EMS companies in India that offer one-stop services from PCB design and analysis to new product development ("NPD") and subsequent volume production. As of March 31, 2022, ATL had 21 customers for its box-build services, which contributed to 44.48% of its revenue from operations in Fiscal 2022 and as of November 30, 2022, it had 29 customers for its box-build services, which contributed to 48.21% of its revenue from operations in the eight months ended November 30, 2022. Further, its capabilities in high precision engineering has led to robust Gross Margins.

Further, ATL focus on continually expanding its technological expertise in manufacturing for diverse industries, integrating its services, and thereby enhancing its capability to serve multiple industry verticals. Its dedication to manufacturing and supply of quality products throughout its infrastructure ensures customer satisfaction, fosters customer loyalty and generates repeat business. Further, the continuous learning from its diversified experience enhances the knowledge level of its workforce, makes it capable of delivering solutions and creates talent.

High entry barriers to business through collective cross-industry experience, customer engagement capabilities and leading position in the high mix flexible volume product manufacturing segment: ATL experience in offering EMS services across product and industry verticals for customers globally for several years serves as an entry barrier in the industry for any new entrants. It has built long term relationships, with certain of its customers extending for more than seven years. As of March 31, 2022, it had an average relationship of more than seven years, with customers who accounted for 80% of its revenue in Fiscal 2022. As of November 30, 2022, it had an average relationship of 8 years, with customers who accounted for 80% of its revenue in the eight months ended November 30, 2022. Given the depth and nature of its engagement with longstanding customers, its customers would not find it easy to switchover to

alternative EMS providers as the cost, time and effort for such transitions is high. Particularly in the case of engagements with long lifecycle industries such as power, railways, aerospace, medical, etc. It has expended resources to penetrate the market and sustain the business.

ATL is one of the leaders in high mix, flexible volume product manufacturing and are present in most industry verticals including the power, industrial, railways, communications, automotive, aerospace and medical industries. Its leading position in the market is driven by its focus on quality and customer relationships nurtured through reliable and efficient services. Specifically, for the purposes of the monitoring and maintenance of quality of its products, it has a team of 206 employees who are dedicated to quality assurance and quality control, as of November 30, 2022. It also provides design and NPD services, which acts as a first step to building long-term customer relationships. It starts its NPD programs at a component level and use its experience in the sector as well as its vertical integration capabilities to cement a delivery proposition for integrated box build solutions. This is supplemented by ATL in-house logistics capabilities including warehousing services, thus engaging the client from design stage to entire system delivery and creating a unique positioning in the industry versus other players.

Well-diversified business leading to strong growth avenues*:* ATL's business is well-diversified, in terms of end-use industries, customers, geographies and offerings. It has, over the years, diversified and expanded its customer bases, and developed its operations to cater to various end-use industries across multiple product capabilities. It is well diversified and are present in virtually every major industry vertical, including clean energy, mobility, industrial, communication and medical. It services a variety of industries, including the power, clean energy, railways, aerospace and medical industries. This diversified industry presence hedges against global market and industry cycle volatilities. It has also penetrated sunrise industries such as clean energy with presence in the solar, hydrogen, and electric vehicles industries. In Fiscal 2022 and in the eight months ended November 30, 2022, clean energy accounted for 20.28% and 23.36% of its sales, respectively. It also caters to industries which require high precision manufacturing, including aerospace, defense and medical.

ATL is also diversified in terms of its offerings, namely PCBA, cable assembly and wire harnesses, sheet metal fabrication, machining, magnetics and injection molded plastics, and end to end box-build. Each of these verticals exists as separate profit and loss centers, besides serving as a captive supplier for its EMS offering. The diversification in this front enables it to grow in multiple verticals. The diversification and expansion of its portfolio is primarily driven by the needs of its customers and technological advancements in the industry. ATL evolving portfolio has helped accelerate its growth enabling it's to retain both new and existing customers.

Established relationships with marquee customer base: ATL thrust to become a significant player in the EMS industry has hinged on its performance and ability to build longstanding relationships with its customers. This has been made possible by virtue of its adaptability to changing customer needs and its ability to service product lines right through their life cycle. Its product portfolio has helped it forge strong relationships with its major clients. It has established and will continue to focus on strengthening longstanding relationships with well-known customers across the end-use industries that it caters to. ATL has a number of reputed multinational companies as its customers across industry vertical, thus indicating the quality of its client base. The varied applications of its products has helped it build a wide customer base across many end-use industries. This is complemented by a strong client value delivery process, with strong focus on up-selling and cross-selling. Further, the Company had an initial engagement with a major OEM through metal to one division of the customer. Over a period of time, it has successfully penetrated multiple divisions (which are separate going concerns) of the same OEM through the supply of both sheet metal fabricated parts and injection molded plastics.

ATL strong and growing customer base and its focus on up-selling and cross-selling has been instrumental in its success to date and is expected to be a strong driver of its future growth and to help expand its market share, develop new products and enter newer markets. Further, it is a supplier to certain key customers in the railway and aerospace vertical in India, which shows the confidence its customers have in its offerings and service delivery. It also provides final integrated solutions to some of its customers' end clients, through logistics and warehousing support, realizing significant supply chain efficiencies for such customers.

Global delivery footprint with high quality standards and advanced manufacturing and assembly capabilities: ATL currently operates through 12 manufacturing units, spread across two states in the US (California and Georgia) and two states in India (Karnataka and Tamil Nadu), and are supported by 1,783 permanent employees and 221 persons employed as contract workers/temporary employees, as of November 30, 2022. In addition, it has a new facility in Chennai, Tamil Nadu, which is currently under construction and renovation. All its locations have been chosen keeping in mind the availability of skilled labor and a strong pool of engineering/managerial talent. It serves customers primarily in North America, India and Europe through these locations. Its manufacturing facilities have an aggregate of 66 production lines, consisting of 11 SMT lines, 12 THT lines and 43 assembly lines, with total installed SMT capacity of 366 million component placements per year in Fiscal 2022 and 322 component placements per eight months in the eight-month period ended November 30, 2022. Its manufacturing facilities in EMS are equipped with modern and high speed equipment that can handle surface

mount components and through-hole components for PCBs. Its machinery capabilities allow it to reduce manual intervention in the manufacturing process, thereby improving product quality of the PCBs.

ATL has developed a global manufacturing footprint which leverages local manufacturing capabilities, to provide localized services to global clients, through its manufacturing facilities located in India and the US, while leveraging manufacturing cost arbitrage, through its manufacturing facilities located in India, for the global market. Its Indo-US manufacturing footprint gives customers the leverage to buy directly from India or through its US operations or through a hybrid model that leverages the strengths of the US and India. ATL is located in a special economic zone in the port city of Chennai, India that enables it to cater easily to international customers. It also benefits from various incentives, such as the ability to import raw material without duties as long as it exports the finished product.

Strong financial performance, stable cash flows and visible growth profile: ATL has a track record of sustained growth in revenue and profitability. Its strong product capabilities, high quality and loyal customer base has enabled to maintain strong financial performance. In Fiscal 2021, its Gross Margin, EBITDA Margin, ROCE and Fixed Asset Turnover were one of the highest among its EMS industry peers. Further, among business to business focused EMS peers, it had one of the highest revenue from operations in Fiscal 2021. ATL has been able to increase its total income from Fiscal 2020 to Fiscal 2022 at a CAGR of 14.19%. Its order book (open order) has increased from Rs. 5,046.72 million as of March 31, 2020, to Rs. 6,345.79 million as of March 31, 2021, to Rs. 8,578.69 million as of March 31, 2022. Financial stability and positive cash flow from operations enable ATL to meet the present and future requirements of its customers. Its strong balance sheet gives its customers the confidence that will be able to support them in terms of both capabilities and capacities. This also helps strengthen trust and engagement with its customers, thereby increasing customer stickiness.

Experienced board, management and operating team: The Promoters of ATL is Kunhamed Bicha and Bhaskar Srinivasan, who have several decades of pioneering experience in the field of EMS, and they have been instrumental in the growth of its business. ATL also have a diversified Board of Directors, which is supplemented by a strong management team with extensive experience in the EMS sector and a proven track record of performance. Its highly experienced and dedicated management team also enables it to capture market opportunities, formulate and execute business strategies, manage client expectations, and proactively manage changes in market conditions. The quality and experience of its management team has been critical in achieving its business results and allowing it to make strategic and timely business decisions in response to evolving customer needs and market conditions. In particular, ATL's management team has sound cross-functional expertise across product design and technology and deep industry experience. In addition to its senior management team, its middle management team and skilled workforce, comprising 1,589engineers which includes 26 sales and marketing professionals and other skilled workers as of November 30, 2022, provides it with the depth of expertise and managerial skills required to manage its business.

Business Strategy:

Sustaining and catering to high growth sunrise industry sectors such as clean energy and emerging communication technologies: Going forward, ATL intends to leverage its experience and expertise to focus on upcoming, high growth sectors, such as clean energy and emerging communication technologies. It aims to focus on high margin value products with medium to long life cycles that need precision engineering, expertise to innovate, the ability to deliver flexible manufacturing plans, and rapid development in the NPD stage, such as the clean energy and emerging communication technologies sectors. The clean energy sector comprises solar, electric vehicles and hydrogen. The communication sector comprises telecom, satellite and digital infrastructure.

Consolidate and expand position in global markets for existing industry verticals: In Fiscals 2020, 2021 and 2022, ATL catered to 54, 62 and 81 customers respectively and in the eight months ended November 30, 2021 and 2022, it catered to 72 and 89 customers, respectively. It has built long-term relationships with certain key customers that span from five to more than seven years. It has been able to do this by offering multiple product solutions, besides offering vertically integrated box build solutions. It intends to increase cross-selling of its products to increase wallet share with its existing customers and expand into new or adjacent product verticals with its existing customers. ATL also provide design services and NPD services. Its focus on NPD as a means to building long-term customer relationships. Many of its customers are large OEMs that have multiple divisions and facilities across various countries. It plans to continue to focus on customers with whom it has longstanding relationships in order to develop and supply more sophisticated, higher margin products. ATL intends to continue to consolidate its position in well-established end-use industries including industrial, communications, mobility, and medical devices.

Creating high growth opportunities for its existing offerings: Given that ATL's business lines of PCBA, cable assembly and wire harnesses, sheet metal fabrication, machining, magnetics and injection molded plastics are capable of functioning independently, it intends to focus on high growth opportunities in each of these business verticals. In magnetics, where it already has a significant presence, it sees high growth opportunities in the power electronics and clean energy vertical. With the emergence of the trend to add new applications by leading manufacturers to their portfolios, a number of opportunities have arisen for power electronic devices such as transformers, chokes and inductors, for the control and operation of heavy machinery. Further, the on-going global climate change

policies emphasizing an increase in contributions from green energy, directly impacts the demand for EMS from solar and wind-energy companies. Electric vehicles are one of the key growth opportunity verticals, due to the technology transformation currently underway with autonomous car development and electric vehicle commercialization activities. ATL intends to continue to leverage its capabilities to focus on such high growth opportunities.

Focus on expanding local manufacturing presence in largest markets, namely the United States and India by leveraging country specific government policy initiatives: ATL intends to continue focusing on increasing its customer base within the US and Indian markets. The EMS industry is poised for robust growth over the next five years. While the EMS market in India was valued at Rs. 1,469 billion (US$20 billion) in Fiscal 2022 and is expected to grow at a CAGR of 32.3% to reach a value of Rs. 4,502 billion (US$60 billion) in Fiscal 2026, the EMS market in the United States was valued at approximately US$140 billion in 2021 and is expected to grow at a CAGR of 6.1% to reach US$188 billion by 2026. The Indian market opportunity is driven by the expected geographical diversification by global OEMs of their manufacturing needs to reduce dependence on China and the availability of government incentives and other schemes, among others. It aims to continue benefiting from the Government of India's "Aatmanirbhar Bharat Abhiyaan," or Self-Reliant India campaign, which provides an additional boost to India's business operations by encouraging substitution of imports of low-technology products from other countries and generating demand for local manufacturing, which would help in reducing import dependence and positioning India as an export hub.

ATL's order book in the US (i.e., orders received directly by its US entity, namely Sienna) has been steadily increasing from Rs.2,010.24 million as of March 31, 2020 to Rs.3,271.03 million as of March 31, 2021 and further to Rs.3,703.31 million as of March 31, 2022. It intends to continue focusing on increasing its order book and customer base in the US. The EMS market in North America is benefitting from the US-China trade tensions that are causing a reshoring of manufacturing back to the United States, which is further strengthened by the supply chain issues caused by the COVID-19 pandemic inducing OEMs and EMS companies to rethink their supply chain strategy that is reliant on the local network.

Continue to build on hybrid model of delivery leveraging access to high value market and low cost production base: ATL's locations are spread between the US and India; accordingly, it is ideally poised to offer a hybrid model of delivery to its customers, where it has access to high value markets (the US) while at the same time being able to leverage low cost production bases (India). Through this model, it offers two modes of delivery, depending on customer preference: (i) the automated portion of manufacturing is conducted in its manufacturing facilities in the US, and the labor intensive portion is conducted in India and the product is configured in the US; and (ii) the option to cater directly to customers in the US from Indian manufacturing bases, leveraging high value markets and optimal cost manufacturing in India. To this effect, it has recently acquired a new manufacturing facility spread over a total built up area of 93,552 sq. ft. in the Special Economic Zone (SEZ), Chennai and ATL intends to continue using this model as demonstrated by the inclusion of a new SMT line at Atlanta, Georgia for expansion.

Invest in expanding technological capabilities and manufacturing capacities: ATL intends to continue to invest in technology infrastructure to enable further technical innovation, improve its operational efficiencies, increase customer satisfaction and improve its sales and profitability. It intends to continue to focus on optimizing and automating its manufacturing processes to improve returns in a rapidly changing technological environment. It constantly endeavors to reduce the costs of its operations while ensuring the quality of products. In order to maintain the Company's competitive position in the industry, it plans to continue developing or purchasing new equipment, which can improve its production efficiency to satisfy consumer demand. In its manufacturing facilities in India, it plans to upgrade its existing manufacturing equipment to increase automation, with an aim to further increase its efficiencies.

Industry:

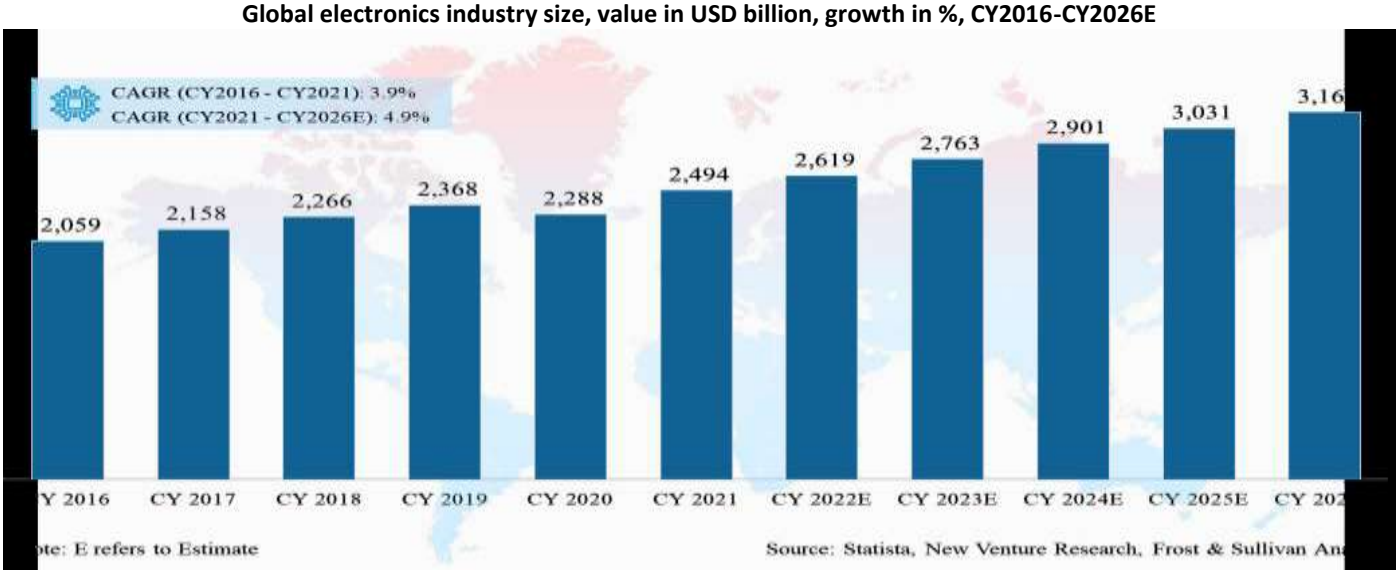
Global electronics industry

Overview of global electronics industry

The electronics market encompasses electronic products, electronic design, electronic components, and electronic manufacturing services. The electronics industry, which has historically been a high-growth sector, contracted by 3.4% in CY2020 due to the decline in private spending induced by COVID-19. The market rebounded in CY2021, as restrictions were lifted, and the market grew by 9%, exceeding pre-pandemic levels.

The global electronics industry was valued at USD 2,494 billion in CY2021. As per Frost & Sullivan's analysis, the industry is expected to grow at a CAGR of 4.9% to reach USD 3,168 billion by CY2026. Some of the critical factors driving this growth are increasing disposable income, higher internet penetration, inclination of the youth towards next generation technologies, the emergence of e-commerce etc.

Global electronics industry size, value in USD billion, growth in %, CY2016-CY2026E

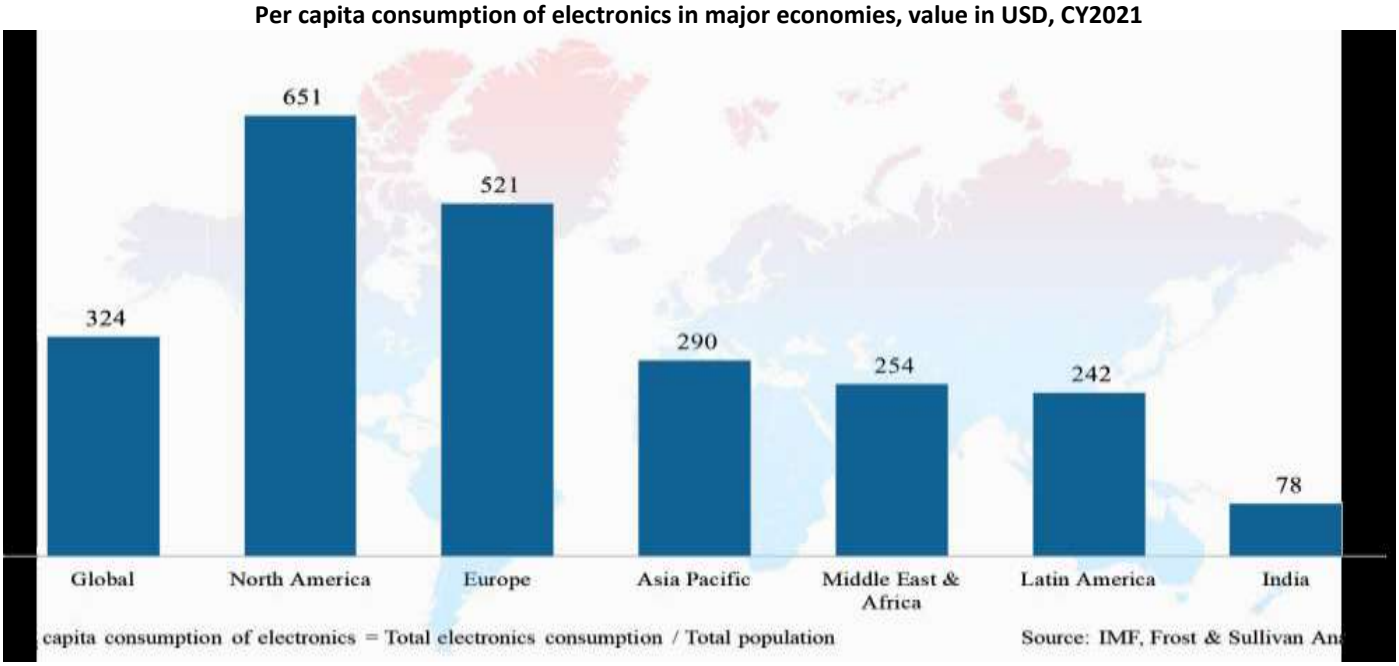


Per capita consumption of electronics in major economies

Globally, per capita electronics consumption is increasing and is currently at USD 324. Per capita consumption is highest in North America and Europe and increasing rapidly in major economies such as the U.S., Europe, China, and India, driven by the growing adoption of wireless connectivity for various electronic devices. An increase in investments in Research and Development (R&D) in consumer electronics and technological advancements, coupled with the growing popularity of wearable electronic devices, are also driving the market.

Per capita consumption of electronics in India is only USD 78, 1/4th of the global average. Domestic electronics consumption is increasing rapidly because of urbanization and the adoption of electronic products in Tier 2 and Tier 3 cities. Also, factors such as the economy's stable growth outlook, the digital India program, rising disposable incomes, changing lifestyles, the emerging work-from-home culture, the expansion of organized retail to Tier 2 and Tier 3 cities, and improved electricity and internet infrastructure will provide additional impetus to the industry. Between FY16 and FY22, the country's electronics consumption grew by 14.5%.

Per capita consumption of electronics in major economies, value in USD, CY2021



Electronics manufacturing contribution to GDP for major countries (U.S., China, India), contribution in %, CY2021

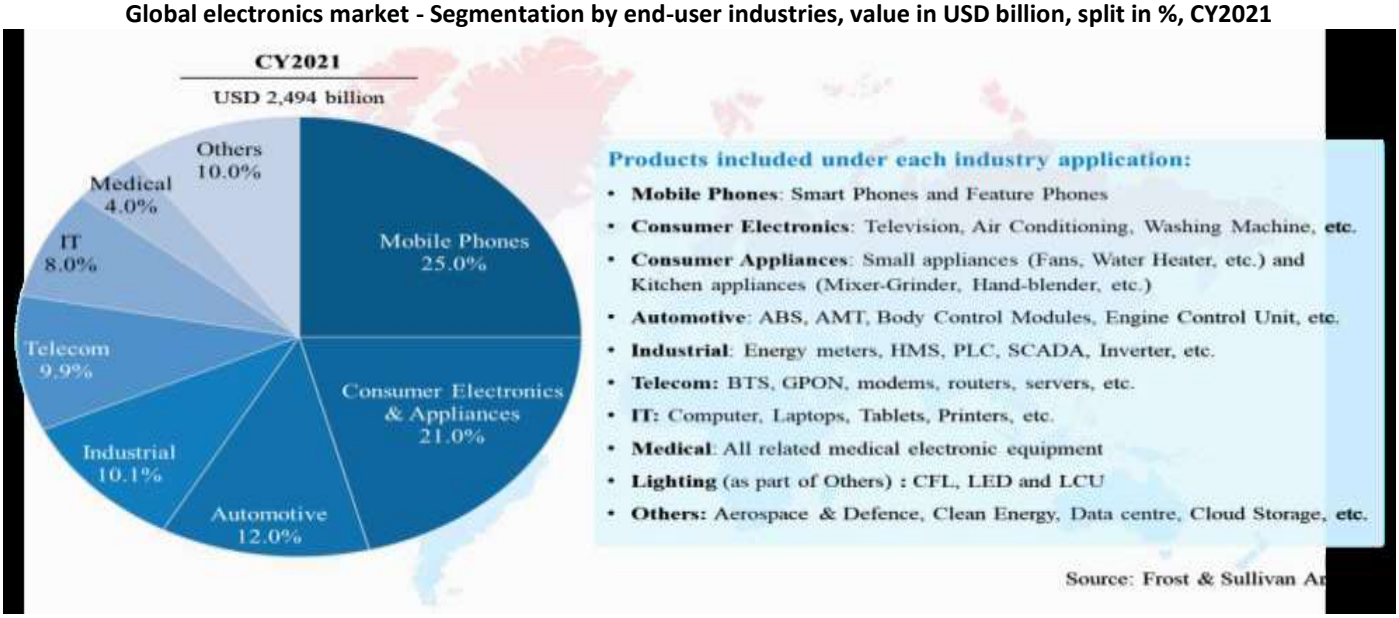
At present, China is the leading economy in the electronics manufacturing contribution to GDP at 7.4%, as many of the leading global manufacturers have a presence in China. However, issues like rising labor costs, and costs of electricity and natural gas have reduced China's competitive advantage. Consequently, it seems likely that a sizeable chunk of the electronics manufacturing industry in China may move to countries such as India, Vietnam, etc., which are relatively more conducive to manufacturing at present. In the United States, the electronics manufacturing industry is very important to the national economy, accounting for 1.6% of GDP and 0.7% of jobs. The electronics sector in India contributes to around 2.7% of GDP. With the increasing focus of the government on domestic manufacturing of electronic components in the country, the electronics sector will see its contribution to GDP increase to around 4.7% in 2026.

Electronics manufacturing split between in-house and EMS

Electronics manufacturing has been divided into two categories: products that are produced in-house by OEMs and those that are produced by the EMS companies. Currently, in-house electronic manufacturers account for approximately 65% of the total electronics market, which is a significant contribution. However, in recent years, the involvement of EMS players has expanded significantly, making the job of OEMs easier to manage.

Global electronics manufacturing market - Split between in-house and EMS, value in USD billion, CY2016-CY2026E

Global electronics market - Segmentation by end-user industries, value in USD billion, split in %, CY2021



Mobile Phone – Mobile phones have emerged as an important commodity in today's world and the segment commands a market worth more than USD 600 billion in CY2021. Increased internet penetration and the expansion of the global economy have resulted in a greater use of smartphones. According to Frost & Sullivan, the potential new markets in Africa, Asia, and Latin America will be the future growth engines of the global mobile phone market, with a growing appetite for entry-level, low-cost, and medium-range smartphones.

Consumer Electronics and Appliances – This is the second largest segment in the electronics market, with a contribution of nearly 21% of the total market. The COVID-19 pandemic sparked a sharp increase in sales in many sectors of the consumer electronics market in CY2021. The upward trend in demand for consumer electronics is expected to continue in CY2022, fuelled by the strong demand for devices with better features. OEMs are supplying to both premium and mid-range consumer's appliances to meet rising demand and to increase revenue. In addition, there is a growing demand for advanced and innovative technologies in this category.

Automotive – This is the third largest sector in the end-user industry. Post-pandemic, manufacturers have shown more resilience, relying on new models, technology, and sustainable behaviors, especially in the electric vehicles (EVs) sector. New business models and investments in charging infrastructure have boosted the market's growth. In CY2021, new players and digital solutions had considerable impact on the existing ecosystem, changing how automobiles were bought and sold.

Industrial – Industrial electronics is another key segment that has influenced the market to a great extent. Sharp price rises, supply chain woes, and labor cost shortages have been putting the squeeze on numerous manufacturers and aggressively cutting down on their margins. For the majority, this could be the start of a period of rising pass-through costs, resulting in higher final product prices.

Telecom – The telecom and networking products industry is primarily comprised of telecom service providers, telecom equipment manufacturers and suppliers, and passive infrastructure providers. The advancement of 5G is expected to drive the market in the future. Furthermore, the work-from-home market has created a dependency for the telecom industry, which has become harder to predict.

IT hardware – The IT hardware market encompasses all physical components that include computing hardware (desktop PCs, notebook PCs, tablets, adaptors, and workstations), all substantially produced in China. As the pandemic began two years ago, it catapulted numerous organizations into new ways of working, rapidly fast-tracking digital transformation, with work environments transforming overnight as remote work became normal and market demand grew.

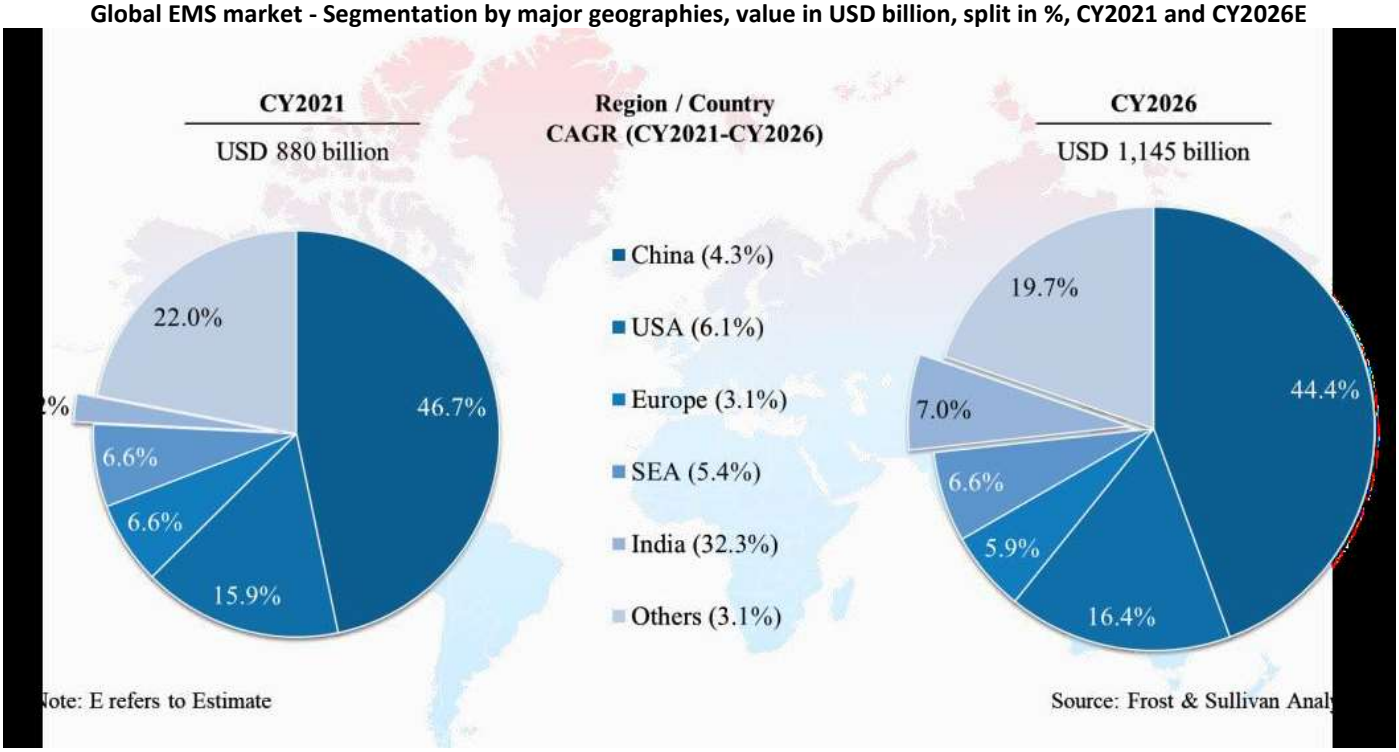
Medical – The digitalization of medical devices will continue, and OEMs are digitalizing their devices and operations (such as sales and marketing). This trend is also making a mark by pushing medtech to deliver value for providers and patients with devices and digital data. The adoption of minimally invasive surgery techniques, the rising adoption of surgical robots, and the gradual shift of some procedures to outpatient settings will continue to drive the uptake of some medical device categories, including consumables.

Aerospace and Defense (A&D) (as part of the others category) – Across the globe, A&D organizations are rapidly adopting various digital technologies. As a result of stringent regulatory standards, supportive government policies on the nation's security policies, and rising government spending, the defense electronics industry is experiencing revenue growth. Rising military spending and geopolitical tensions among countries are two major market trends driving demand for this market. Defense OEMs are aware of the upward trend and are expanding their product offerings through in-house development or strategic partnerships.

Clean Energy (as part of the others category) – As part of the UN Climate Change Conference (COP26), the EU and the U.S. announced their commitments to become carbon neutral by 2050, while China and India, the 1st and 3rd largest carbon emitters globally, have planned to become carbon neutral by 2060 and 2070, respectively. This has led to a growing need for the development of safer alternative and efficient energy solutions. Supporting the transition to a greener future, electronic manufacturers are providing customized solutions to clean energy (solar, wind and other renewables), especially in products such as battery management systems, solar inverters and chargers, etc.

Lighting (as part of the others category) – The lighting industry is booming globally as a result of the transition from traditional lighting to LED lighting, which can help users realize energy efficiency while also improving experience and comfort. As the Internet of Things (IoT) gains traction, lighting companies that have reached a revenue plateau are focusing on offering smart lighting.

Global EMS market - Segmentation by major geographies, value in USD billion, split in %, CY2021 and CY2026E



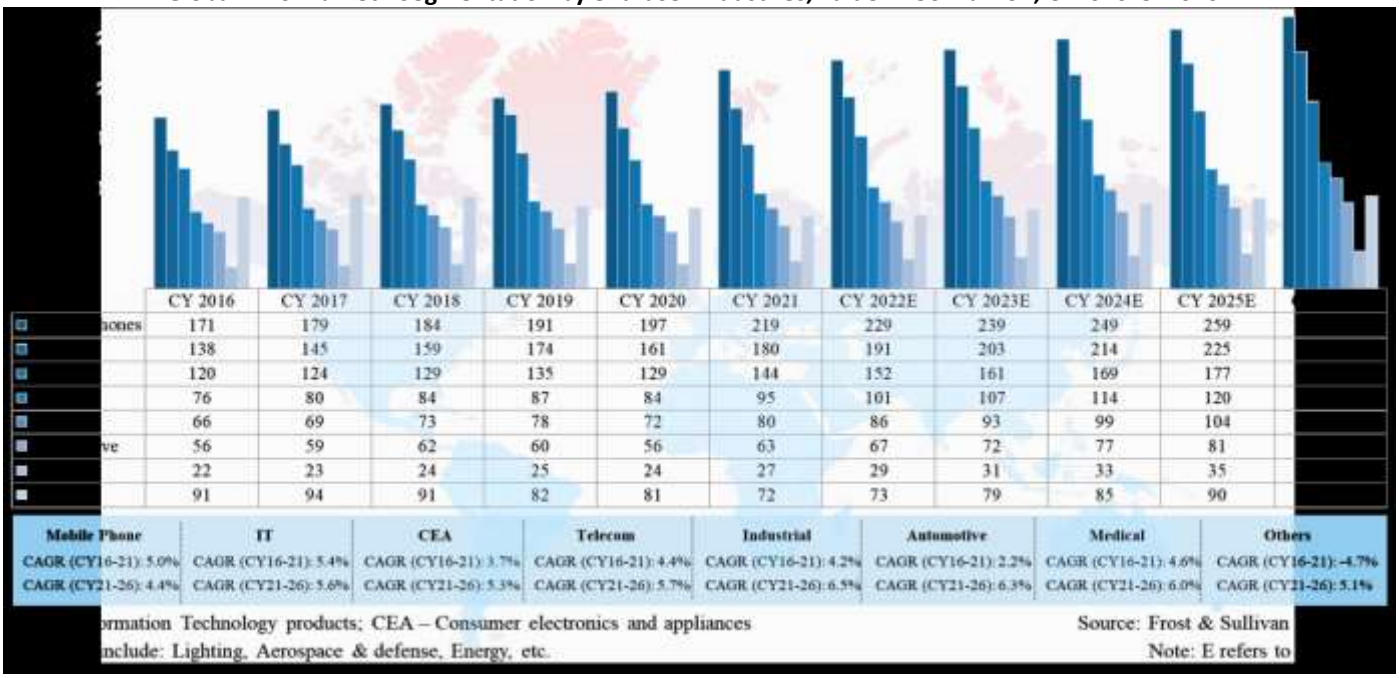
China leads the global EMS business with a 46.7% share in 2021. It is a global leader due to operational cost benefits, availability of a large number of highly skilled personnel, infrastructure, logistical advantages, and proximity to the largest end-user base across all end-user verticals. However, post-COVID-19, many global electronics manufacturers are contemplating a China + 1 strategy and are looking for alternate manufacturing locations for exports, creating tremendous investment potential for countries like Vietnam, India, and the Philippines etc.

North America is a leader in adopting next-generation technologies and devices. In the next five years, demand for EMS will be driven by a rise in electronic device demand, a well-established EMS infrastructure, and evolving government policies that encourage local production. The EMS industry is poised for robust growth over the next five years. The EMS market in the United States was around USD 140 billion in CY2021, and it is expected to grow at a CAGR of 6.1% to USD 188 billion by CY2026.

The EMS sector is a sizeable industry both globally and in India; India is expected to grow at a significant pace. There is a strong push from the government to develop India into an ideal location for electronics manufacturing in the region. Under the National Policy on Electronics (NPE), India announced various programs in 2019, including EMC 2.0, to enhance the electronics manufacturing infrastructure and offer incentives to manufacture more products that promote the industry in India. The PLI program, which benefits

electronics manufacturing firms, was introduced in 2020. In Chennai, in the southern state of Tamil Nadu, an electronics manufacturing corridor is being built. The EMC Smart City investment in Greater Noida is planned at USD 162.7 million. Kaynes, Jabil, Dixon, Bharat FIH, Flextronics, SFO, Elin, Rangsons, and Centum are among the companies that have invested in manufacturing capacity as a result of the "Make in India" policy's efforts. The government has recently come up with incentive scheme for the development of a semiconductor and display manufacturing ecosystem in India; this includes Semiconductor and Display Fabrication, Semiconductor Laboratory (SCL), Compound Semiconductors/Silicon Photonics/Sensors, including MEMS (Micro Electro Mechanical Systems), and Semiconductor ATMP (Assembly, Testing, Marking and Packaging)/OSAT (Outsourced Semiconductor Assembly and Testing) Units and Semiconductor Design companies (Design Linked Incentive/DLI). In CY2021, India's EMS market was estimated at around USD 20 billion with a market share of 2.2%

Global EMS market - Segmentation by end-user industries, value in USD billion, CY2016-CY2026E



	CY 2016	CY 2017	CY 2018	CY 2019	CY 2020	CY 2021	CY 2022E	CY 2023E	CY 2024E	CY 2025E
...ones	171	179	184	191	197	219	229	239	249	259
	138	145	159	174	161	180	191	203	214	225
	120	124	129	135	129	144	152	161	169	177
	76	80	84	87	84	95	101	107	114	120
	66	69	73	78	72	80	86	93	99	104
...ve	56	59	62	60	56	63	67	72	77	81
	22	23	24	25	24	27	29	31	33	35
	91	94	91	82	81	72	73	79	85	90

Mobile Phone	IT	CEA	Telecom	Industrial	Automotive	Medical	Others
CAGR (CY16-21): 5.0%	CAGR (CY16-21): 5.4%	CAGR (CY16-21): 3.7%	CAGR (CY16-21): 4.4%	CAGR (CY16-21): 4.2%	CAGR (CY16-21): 2.2%	CAGR (CY16-21): 4.6%	CAGR (CY16-21): -4.7%
CAGR (CY21-26): 4.4%	CAGR (CY21-26): 5.6%	CAGR (CY21-26): 5.3%	CAGR (CY21-26): 5.7%	CAGR (CY21-26): 6.5%	CAGR (CY21-26): 6.3%	CAGR (CY21-26): 6.0%	CAGR (CY21-26): 5.1%

...rmation Technology products; CEA – Consumer electronics and appliances
...include: Lighting, Aerospace & defense, Energy, etc.
Source: Frost & Sullivan
Note: E refers to

Mobile phones, IT hardware and IoT: These are some of the key segments with a significant share of the global EMS market. IoT, which is part of CEA, is gaining in popularity as the number of internet and smart device users rises. Similarly, products such as BLDC motors, inverters and other specific product categories are also gaining in importance.

Consumer electronics and appliances (CEA): The segment had a consistent performance in the last few years, which was aided by growth in both advanced economies and developing countries. EMS companies have also profited from rising consumer spending and technological improvements. Rising demand for smart solutions will fuel future growth. Furthermore, OEMs and EMS manufacturers are progressively supplying both premium and mid-range appliances in order to meet the growing demand for both product categories and to increase revenue.

Industrial electronics: Another important market, which is primarily divided into power and automation. Leading manufacturers adding new applications into their portfolio by partnering with niche application providers. With the emergence of new applications, there are several opportunities for power electronic devices such as transformers, chokes and inductors. Many electronics applications are concerned with the control and operation of heavy machinery. Energy meters/smart meters and industrial machinery are the key products, accounting for a sizable market share.

Medical: Medical electronics are a key revenue opportunity in the EMS market. Though COVID-19 has created a surge in demand for EMS in this vertical, it is important to carefully assess the level of demand in the longer term.

Aerospace and defense: A&D is relatively small but a key revenue contributing segment. OEMs perceive EMS providers as a strategic solution partner, as this gives them an average saving of 10% to 15%. In the next few years, apart from cost, A&D OEMs will consider EMS providers' expertise in advanced technologies as a key partnership factor in boosting EMS revenue. Aerospace development typically presents several challenges compared with other industry segments due to high tolerance requirements and the difficulty of working with materials such as cobalt, nickel and titanium alloys. Due to strict engineering and quality requirements in the aerospace

industry, supplier onboarding and development is characterized by the need for quality systems for special processes and traceability documentation for materials. Product development in this industry is characterized by long lead times as a number of approvals and audits are typically required before finally going into production. To penetrate the aerospace segment, companies must invest significant time, efforts, and resources. Further, the development process for this segment often involves long-term cycles with a continuous learning curve.

Mobility: This is one of the key growth opportunity verticals for EMS providers in the next five years, due to on-going advances in technology with autonomous vehicle development and electric vehicle commercialization activities. Moreover, the rapidly growing requirement for electronic content will accelerate the growth of EMS revenue from this vertical. In the long term, the industry is likely to benefit from the global market. Long lead time for customer acquisition, onboarding, prototyping, OEM approvals and production, coupled with the criticality and requirement for high-reliability anti-collision signaling systems, means that there are significant barriers to entry for railway projects.

Clean energy: A more sustained growth opportunity is likely from this segment. The on-going global climate change policy, with an emphasis on increasing contributions from green energy, directly impacts the demand for EMS from solar and wind energy companies. EV is one of the key growth opportunity verticals, due to on-going advances in technology with autonomous vehicle development and EV commercialization activities. Moreover, the growing requirement for electronic content will accelerate the growth of EMS revenue from this vertical.

Key Drivers for the growth of the Global EMS industry:

Technological advancements: The development of new manufacturing technologies and the emerging end-use sectors, such as the Internet of Things, are expected to boost demand for the EMS industry. Major manufacturers are strengthening their R&D investment in order to differentiate their products and attract new end-use applications. The rising popularity of smart home devices in developed nations such as the United States and European countries raises very high expectations for EMS companies. In the United States, companies provide electronic manufacturing services that include developing optoelectronics, radio frequency and wireless devices, and microelectronics devices for the rapidly-growing smart home sector. Key market participants are focusing on increasing production volumes by combining cloud computing, artificial intelligence, big data analysis, and 3D printing to produce connected devices for smart homes.

Greater emphasis on vehicle electrification: The EV market will be the most lucrative in the automotive industry over the next decade. With an ever-increasing electronic content in each car, energy-related modules and sub-assemblies, as well as charging infrastructure, which requires an overall ecosystem, there is major potential for EMS firms to enter this fast developing industry and supply the leading EV manufacturers. As the number and complexity of PCBAs in electric vehicles are significantly higher than in typical ICE vehicles, this growth represents a huge potential for EMS businesses to offer electronic manufacturing and mass production services to automakers.

Technological upgrade of facilities: EMS companies are investing in technological upgrading of their facilities by adopting digitization and industry 4.0 concepts. This will improve productivity and capacity, thus improving capability to win more contracts. A majority of the market participants are progressing in this direction; hence, this factor will evolve into a significant driver in the medium to long term.

Product development activities: The dependence created by electronics in product development activities across all verticals will turn out to be a significant driver for EMS, especially in consumer electronics and automotive segments, where new devices and systems are being developed. As the electronic content increases, the volume of manufacturing will increase, driving the market.

North American electronics industry

Overview of North American electronics industry

The electronics industry is one of the major revenue generators in the North American market. In comparison to other regions, the electronics industry in North America is a mature market with a long history of innovation. Within North America, the United States leads this industry in terms of total market share, followed by Mexico and Canada. The electronics manufacturing sector in the U.S. directly contributes to 1.6% of U.S. GDP and 0.7% of U.S. jobs. The electronics industry is growing steadily, aided by economic growth and rising market demand. According to Frost & Sullivan estimates, the North American electronics industry was valued at USD 520 billion in CY2021. The market is expected to grow at a CAGR of 4.4% to reach USD 645 billion by CY2026. Due to the desire to cut costs, large manufacturers have been confined to overseas locations for the reduced labor costs. However, global economic conditions are gradually removing that advantage, making manufacturing in North America more cost-effective.

Key trends in the electronics industry in North America

Rising demand for smart solutions: North America is a pioneer in the adoption of next-generation technologies. In the last five years, the demand for IoT-enabled devices has surged. Product differentiation and the development of emerging technologies are significant drivers of change in the North American electronics industry. Artificial intelligence and voice recognition also contribute to the industry's continued growth. Because of the advancement of new technology, the electronics industry has evolved and now intersects with a wide range of segments, including software, application development, robotics, and personalized health care.

Shifting back production to the U.S. from overseas: The primary goal of the U.S. government's enforcement of tariffs on imports was to bring manufacturing back to the U.S., which resulted in a trade war with China and the blocking or revision of trade agreements. However, the trade balance and the preference of Chinese companies to redirect investment into the U.S. hardly changed. Delays in delivery and rising freight charges have reduced dependence on companies in other regions, especially China. Companies in the US are currently attempting to regain some of the industrial output they lost to these low-cost regions:

Shift from B2B to B2C: For many years, electronic manufacturing companies operated using the business-to-business (B2B) approach. Now, with more manufacturing companies looking for ways to cut costs, companies are turning to the business-to-consumer approach (B2C). With the use of the B2C approach, companies are now working towards eliminating intermediaries, which helps them reach the clients directly; as a result, this increases company profits and, in turn, reduces purchase costs. Additionally, the B2C approach enables the manufacturers to collect accurate customer data, improving customer satisfaction.

Increasing adoption of 5G technology: The adoption of 5G technology among subscribers has increased over the past two years, and North American mobile carriers have maintained momentum in the development of 5G technology. These companies are planning to invest USD 300 billion in their network infrastructure between 2020 and 2025, 98% of which will be allocated to the rollout of 5G. Nearly two-thirds of mobile connections, or over 270 million connections in the region, are anticipated to have 5G by the end of 2025.

Growing adoption of 3D printing: North America has always been a technology leader by promoting innovation through tax incentives. This has resulted in the scaling of start-ups in the region. Hence, R&D and prototyping activities are large, which makes 3D printing a highly sought after technology in the region to develop prototypes. Jabil's recent survey on the utilization of 3D printing indicates that over 50% of companies use in-house 3D printing. By linking the region's quantum of R&D activities to the total available market, electronics manufacturers can expect good growth.

Key growth drivers of EMS industry in North America

Implications of US-China trade war in the EMS market: The North American EMS market is benefitting from the US-China trade tensions that are causing a reshoring of manufacturing back to the U.S. Several companies like Apple, Lenovo and GE are shifting a part of their EMS strategy back to the U.S. This is further strengthened by the supply chain issues caused by the COVID pandemic, inducing OEMs and EMS companies to rethink their supply chain strategy to be one that is reliant on the local network.

Greater emphasis on vehicle electrification: The expansion of EV industry owing to the rising stringency in government policies to curb the carbon footprint will encourage automakers to opt for electronic manufacturing services. EMS proficiency in the automotive sector includes box build assembly, PCB assembly services, and module assembly to provide high-volume production units to the OEMs. America is the second leading EV market after China with, specifically, the US having a well-developed charging infrastructure that supports the growth of EV sales. EMS companies need to increase collaboration with companies across the EV ecosystem from Integrated Circuit (IC) design houses to Outsourced Assembly and Testing Service (OSATs), Car OEMs, and third-party testing and certifications.

Impact of Canada-United States-Mexico Agreement (CUSMA): On November 30, 2018, Canada, the U.S. and Mexico signed the new Canada-United States-Mexico Agreement (CUSMA), which was approved on July 1, 2020. The successful implementation of CUSMA will have a major influence on the development of the North American electronics industry over the following few years.

Adopting digitization and industry 4.0: EMS companies are investing in the technological upgrading of their facilities by adopting digitization and industry 4.0 concepts. This will improve productivity and capacity, thus giving companies the capability to win more contracts. A majority of the market participants are progressing in this direction; hence, this factor will evolve into a significant driver in the medium to long term.

Internet of Things: Industrial products manufacturing saw an uptick in 2021 compared to 2020 or 2019 figures. This was mostly true for the test and measurement industry, where capital spending investment has been growing since 2013. Other product areas such as industrial process control, semiconductor equipment, power supplies, test and measurement for all sectors, robotics, and scientific

instrumentation have done well in the domestic economy and accordingly are manufactured by smaller EMS firms who have good relationships with their customers.

Overview of the Indian Electronics Industry

Indian Electronics industry

Overview of Indian electronics industry - Total market and domestic consumption

Electronics is one of the fastest growing industries in the country. The total electronics market (domestic electronics production and imports of finished goods) in India was valued at INR 9,263 billion (USD 124 billion) in FY22, and is expected to grow at a CAGR of 17.9% to reach INR 17,902 billion (USD 240 billion) in FY26. The landscape of the industry is changing significantly, and revised cost structures have shifted the focus of multinational companies onto India.

At present, the Indian government is striving to strengthen manufacturing capabilities across several electronics industries and to fill in the gaps in order to make the Indian electronics sector globally competitive. India is positioned as both a high-quality destination for design and a cost-effective option. Low manufacturing costs, a skilled workforce and a vast geographical area are some of the driving elements behind the development of India's electronics ecosystem. Also, the manufacturers are slowly shifting their focus on product mix from high-volume, low-margin (HVLM) products to low-volume, high-margin (LVHM) products.

The demand for electronic goods in India has grown significantly in recent years. The domestic electronics consumption market is estimated at INR 8,117 billion (USD 109 billion) in FY22, and is expected to grow by 10.5% to reach INR 12,091 billion (USD 162 billion) in FY26. An increasing electronics penetration in semi-urban and rural markets, a shift in lifestyle among the Gen Y population, and adoption of smart gadgets are some key drivers supporting domestic consumption.

Indian EMS industry

The Indian EMS industry is relatively young, having been established for nearly three decades. The EMS industry has grown in prominence over the last decade, particularly in the last five years. The industry, which was traditionally a domain of the PSUs, has seen the participation of a few MNCs and many private sector Indian companies post-liberalization of the Indian economy. These companies were addressing the requirements of consumer electronics OEMs and some of them were manufacturing for their global requirement. The Indian market opportunity is driven by the expected geographical diversification by global OEMs of their manufacturing needs to reduce dependence on China and the availability of government incentives and other schemes, among others.

The years 2005-07 saw the first big ticket investment in EMS operations in India with the entry of Jabil Circuits and Nokia. This triggered a series of large/medium-scale investments in the Indian EMS sector. The years 2013-14 were less successful as Nokia wound up its India operation, however this setback was short-lived. By 2015, global EMS giants had started showing an interest in India. Since then, the Indian EMS industry has embarked on an upward journey. Now, with most of the global mobile phone manufacturers and their supply chain partners investing in manufacturing, the Indian EMS industry is well-positioned to unlock its true potential in the coming years. Avalon has over the years built a diversified industry presence that provides a natural hedge against global market and industry cycle volatilities.

Value chain of EMS in India

Manufacturers in India lack mature set-ups due to large capex investments and long gestation periods. Europe and the U.S. continue to dominate R&D and IP ownership of related work with most MNCs holding their IP in their headquarter locations. However, India has a competitive edge in design services, since most such work is outsourced to cost-effective destinations (China, South Korea, Thailand). In terms of manufacturing and system assembly, India has an established set-up. Many EMS providers are slowly evolving to offer complete design services apart from contract manufacturing. EMS players obtain higher margins through this model.

EMS providers in India have moderate maturity levels in packaging, distribution, repair, sales and marketing functions to meet geographical standards and cater to local requirements. After-sales services, which include repair and maintenance, are important for the Indian buyer and EMS companies having an extra ability to provide these reverse logistics will be favored by OEMs, and at the same time would play a significant role in e-waste management which is a huge concern globally. Many players such as Dixon, Flextronics, etc. are offering after-market services such as repair, refurbishment, logistics, and vendor management. Among EMS service providers in India, Avalon Technologies has a unique global delivery model, comprising design and manufacturing capabilities across both India and the United States. Avalon is present across multiple industry verticals with a focus on complex integrated solutions with significant engineering content, leading to profitability (in terms of gross margins/EBITDA margins). Avalon’s wide customer base across various sectors reduces its dependence on any one end-use industry and provides a natural hedge against market instability in a particular end-use industry. Also, Avalon Technologies has one the largest installed bases of advanced computer aided engineering software tools in India, to cater to growing demand in the electronic design automation vertical.

Growth Drivers

Electric vehicles (EV)

Incentives and Subsidies for EV market: As part of the "Make in India" initiative, the government is providing incentive schemes and subsidies (FAME I and II) for domestic companies, which they can use to partner with global companies and establish manufacturing facilities.

Reducing carbon emission: Increased fuel costs will play a significant role in increasing the adoption of EVs, beginning with e2Ws in India. Transportation in India accounts for approximately 10% of the country's carbon emissions. India is poised to pioneer a new sustainable mode of transportation via the EVs.

Emission norms: Stringent emission norms to improve the air quality and reduce carbon emissions are forcing OEMs to launch more EVs. The government is embracing expensive technologies for the purpose of achieving the target which has been committed under the COP 21 Paris agreement.

Solar and hydrogen

Favorable policies and incentives: In the month of April 2021, the Ministry of Power released a draft of the National Electricity Policy 2021 and has invited suggestions from all the stakeholders such as Central Public Sector Undertakings, power transmission companies, Solar Energy Corporation of India financial institutions such as the RBI, Indian Renewable Energy Development Agency, ICICI Bank, HDFC Bank and industrial, solar and wind associations and state governments.

India's commitment on Renewable energy: The Indian government has originally set the target of installing 175 GW of RE capacity by 2030, but it has now been increased it to 450 GW. In October 2021, the Ministry of Power announced a new set of rules aimed at reducing the financial stress for stakeholders and safeguarding the timely cost recovery in terms of electricity generation.

The Mobility segment, which includes Automotive, Railways and Aerospace, is valued at INR 78 billion in FY22, and is expected to grow at a CAGR of 21.6%, to reach INR 171 billion by FY26 in India.

Industry overview

Automotive Electronics: The top five products in this industry, namely Engine Control Unit (ECU), EV/HV, HVAC, Infotainment and Lighting, account for 95% of demand. Government initiatives such as the Automotive Mission Plan which targets production of 940 million vehicles by FY26 with an annual output value of INR 19.7 Lakh Crore bodes well for the market. Statutory requirements on emissions and safety are expected to generate significant demand for many products, which will boost local manufacturing. With the presence of key players such as Bosch and Continental manufacturing Engine Control Unit in India, the market is expected to show rapid growth in the future.

Major areas of usage of electronics in Railway industry are, among others, signal safety related electronic system, safe communication and processing system. Electronic components without asymmetric faults and unsafe communication channels are also being used in the railway signaling system. Indian Railways is planning to add more coaches in the future, to provide comfort to maximum number of passengers. Various modes of transport for last-mile connectivity have also led to increased passenger numbers in Metro. Indian Railway has launched the National Rail Plan, Vision 2024, to accelerate the implementation of the critical projects, such as multi-track congested routes, achieving 100% electrification, upgrading the speed to 160 km/ hr. on Delhi-Howrah & Delhi-Mumbai routes, upgrading the top speed to 130 kph on all other golden quadrilateral-golden diagonal routes, and removing all level crossings on the golden quadrilateral-golden diagonal route by 2024. Indian Railways is developing and creating technology in areas such signaling and telecommunication to be tailored with 'KAVACH', the locally developed Train Collision Avoidance System.

In India, the **aerospace** electronics segment is still in its early stages. The opportunity in aerospace electronics spans both standalone systems and subsystems for other segments, and it extends beyond commercial and military aviation. The aerospace industry has development lead times that can extend to several months, if not years, depending on the complexity of the product under consideration. In the aerospace industry, typical product development must pass through a number of gates, starting with sample development, transition development, pilot lot and, subsequently, production. Avalon Technologies specializes in complex sheet metal fabrications, machining, and injection molded plastics for aerospace applications.

EMS market landscape

Jabil, Sanmina, Kaynes, Avalon Technologies and Syrma SGS are some of the key players providing EMS services to the automotive sector in India. Prominent players in Railway EMS space in India include, among others, Avalon Technologies, Kaynes and Cyient. Some of the other key organizations supporting Indian railways include RVNL, Railtel, DFCC and Concor. RVNL is helping build engineering

works required by the Indian Railways and Railtel is helping to modernise the train control operation and safety system of the railways. While in Aerospace segment, Kaynes, Avalon Technologies, Cyient and Centum are some of the key participants.

Key Concerns

- ATL's manufacturing facilities are critical to the business. Any disruption in the continuous operations of manufacturing facilities, including due to the COVID-19 pandemic, or a similar public health threat would have a material adverse effect on the business, results of operations and financial condition.
- ATL sources its raw material from suppliers, primarily on purchase order basis, who may not perform their contractual obligations in a timely manner, or at all.
- The markets in which ATL's customers compete are characterized by sectors specific to the industries which it caters to, and their rapidly changing preferences and other related factors including lower manufacturing costs and therefore as a result it may be affected by any disruptions in the industry.
- Dependent on certain customers for a portion of revenues. Loss of relationship with any of these customers or a reduction in their demand for products may have a material adverse effect on its profitability and results of operations.
- The average cost of acquisition of Equity Shares for Selling Shareholders may be lower than the Offer Price.
- ATL faces significant competitive pressures in business, and its inability to compete effectively would be detrimental to its business and prospects.
- Any defaults or delays in payment by a significant portion of ATL's customers, may have an adverse effect on its cash flows, results of operations and financial condition.
- Foreign exchange fluctuations may adversely affect the earnings and profitability.
- The global nature of operations exposes ATL to numerous risks that could materially adversely affect its financial condition and results of operations.
- ATL may not be able to successfully develop new production processes and adopt new original design manufacturing capabilities if it is unable to identify emerging trends and are not able to predict customer preferences.
- Operating results may fluctuate from period to period, which may affect the business and financial condition.
- ATL have had negative cash flows from operating activities in the past and may continue to have negative cash flows in the future.
- Dependence on subsidiaries exposes ATL to significant risks.
- Business requires ATL to obtain and renew certain accreditations, licenses and permits from government, regulatory authorities including in relation to quality standards and the failure to obtain or renew them in a timely manner may adversely affect the business operations.
- The objects of the Offer include funding working capital requirements of the Company, which is based on certain assumptions and estimates.
- The strict quality requirements and delivery schedules at pre-determined prices for the products that ATL is required to comply with, may result in its incurring significant expenses. Any failure to do so may adversely affect its reputation, financial conditions, cash flows and results of operations.
- Operations depend on the availability of timely and cost-efficient transportation and other logistic facilities and any prolonged disruption may adversely affect the business and results of operations.
- ATL may be subject to significant risks and hazards when operating and maintaining its manufacturing facilities, for which its insurance coverage might not be adequate.

- Failure to maintain optimal inventory levels could increase inventory holding costs and adversely affect ATL's operations and financial condition.
- Non-compliance with increasingly stringent safety, health, environmental and labor laws and other applicable regulations, may adversely affect the business, results of operations, cash flows and financial condition.
- Failure to maintain confidential information of customers could adversely affect the reputation, business, financial condition and results of operations.
- ATL has incurred capital expenditure in the past and will continue to do so in the future, and such expenditure may not yield the benefits it anticipates. Its proposed capacity expansion plans relating to its manufacturing facilities are subject to the risk of unanticipated delays in implementation and cost overruns.
- Continued success is dependent on ATL's senior management and skilled manpower. Its inability to attract and retain sufficient number of skilled manpower and key personnel or the loss of services of its senior management may have an adverse effect on the business prospects.
- The activities carried out at ATL's manufacturing facilities can cause injury to people or property in certain circumstances.
- Inability to manage the expansion of products range, customer base, assembly and manufacturing capacities, and execute growth strategy in a timely manner or within budget estimates, or its inability to meet the expectations to track the changing preferences of customers or other stakeholders could have an adverse effect on ATL's business, results of operations and financial condition.
- ATL may not be able to manage the growth of its business effectively or continue to grow its business at a rate similar to what ATL has experienced in the past.
- ATL may not be able to optimally utilize its backward integration to enhance and support its business, which may affect its operations and profitability.
- ATL has in the past been in non-compliance with certain reporting requirements under FEMA, within the prescribed period.
- Business prospects of ATL and continued growth depends on its ability to access financing at competitive rates and competitive terms, which amongst other factors is dependent on its credit rating.
- Production capacity may not correspond precisely to its production demand which may affect its results of operations.
- ATL may be subject to financial and reputational risks due to product quality and liability issues which may have an adverse effect on its business, financial condition and results of its operations.
- ATL is required to comply with certain restrictive covenants under its financing agreements. Any non-compliance may lead to, amongst others, suspension of further drawdowns, which may adversely affect the business, results of operations and financial condition.
- Operational flexibility may be limited in certain respects on account of obligations under some of ATL's major customer agreements and purchase orders.
- ATL and its customers may not be able to anticipate and adapt to technological changes which may have an adverse effect on its business, financial condition and results of its operations.
- If ATL is unable to protect its intellectual property or if it infringes the intellectual property rights of others, its business, financial condition, cash flows and results of operations may be adversely affected
- Failure to comply with trade restrictions such as economic sanctions and export controls could negatively impact ATL's reputation and results of operations.

- ATL engages contract workers for carrying out certain functions of its business operations. In the event of non-availability of such contract workers at reasonable cost, any adverse regulatory orders or any default on payments to them by the agencies could lead to disruption of the manufacturing facilities and its business operations.
- Acquisitions, strategic investments, partnerships or alliances may be difficult to integrate, and may adversely affect its financial condition and results of operations.
- ATL has certain contingent liabilities that have not been provided for in its financial statements, which if they materialize, may adversely affect its financial condition.
- Changing laws, rules and regulations and legal uncertainties, including adverse application or interpretation of corporate and tax laws, may adversely affect ATL business, prospects and results of operations.
- Political, economic or any other factors beyond ATL control may have an adverse effect on the business and results of operations.
- A slowdown in economic growth in India or political instability could adversely affect the business.
- Fluctuation in the exchange rate between the Indian Rupee and foreign currencies may have a material adverse effect on the trading price of, and returns on, ATL's Equity Shares, independent of its operating results.

Profit & Loss

Particulars (Rs in million)	For the period ended November 30, 2022	FY22	FY21	FY20
Revenue from operations	5847.9	8407.2	6904.7	6418.7
Other Income	121.9	109.3	54.3	112.8
Total Income	**5969.8**	**8516.5**	**6959.0**	**6531.5**
Total Expenditure	**5167.3**	**7431.7**	**6243.3**	**5773.9**
Cost of Materials Consumed	3815.3	5608.0	4356.2	4289.8
Change In Inventories of Finished Goods & Work-In-Progress	-137.1	-66.7	203.8	-177.3
Employee Benefits Expenses	1036.5	1313.5	1192.1	1162.1
Other expenses	452.6	576.8	491.2	499.2
PBIDT	**802.5**	**1084.8**	**715.7**	**757.6**
Interest	204.5	248.5	269.9	449.6
PBDT	**597.9**	**836.3**	**445.8**	**308.0**
Depreciation and amortization	124.1	171.9	157.5	155.1
Exceptional Item	0.0	199.9	0.0	0.0
PBT	**473.9**	**864.3**	**288.3**	**153.0**
Tax (incl. DT & FBT)	**132.0**	**182.7**	**57.5**	**29.7**
Current tax	87.8	138.7	33.9	21.7
Tax expense related to earlier years	-0.9	-16.1	0.0	0.0
Deferred tax (credit)/charge	45.1	60.1	23.6	8.0
PAT	**341.9**	**681.6**	**230.8**	**123.3**
EPS (Rs.)	6.1	11.3	4.0	2.2
Face Value	2	2	2	2
OPM (%)	11.6	11.6	9.6	10.0
PATM (%)	5.8	8.1	3.3	1.9

Balance Sheet

Particulars (Rs in million) As at	As at November 30, 2022	FY22	FY21	FY20
Non-current assets				
Property, plant and equipment	919.8	894.0	832.4	719.5
Capital work-in-progress	134.9	19.7	0.0	26.7
Right of use assets	350.3	222.3	200.3	259.8
Intangible assets	5.6	6.3	8.2	7.3
Financial assets				
Investments	0.0	0.0	0.0	23.5
Other Financial Assets	*50.9*	*52.80*	*43.5*	*44.1*
Deferred tax assets (net)	131.2	163.5	232.4	262.5
Tax assets (Net)	18.8	17.3	8.0	18.0
Other non-current assets	2.6	0.8	4.0	8.5
Total non-current assets	**1,614.1**	**1,376.8**	**1,328.7**	**1,369.9**
Current assets				
Inventories	3,098.9	2,330.2	1,457.8	1,552.6
Financial assets				
Trade receivables	*1,733.7*	*1,773.7*	*1,818.9*	*1,137.9*
Cash and cash equivalents	*104.9*	*77.6*	*313.4*	*245.9*
Bank balances other than cash & cash equivalents	*13.9*	*23.8*	*21.9*	*20.0*
Other Financial Assets	*8.9*	*13.2*	*14.4*	*9.1*
Other Current Assets	456.0	284.3	169.8	161.1
Total current assets	**5,416.3**	**4,502.9**	**3,796.1**	**3,126.6**
Total assets	**7,030.4**	**5,879.6**	**5,124.8**	**4,496.5**
EQUITY & LIABILITIES				
Equity				
Equity share capital	113.4	16.0	16.0	15.3
Other equity	1,329.9	855.9	583.5	450.4
Non-Controlling Interests	0.00	0.0	-317.4	-431.3
Instruments entirely Equity in nature	35.0	0.0	0.0	0.0
Total equity	**1,478.3**	**871.9**	**282.1**	**34.5**
Liabilities				
Non-current Liabilities				
Financial Liabilities				
Borrowings	*683.7*	741.8	811.8	495.8
Lease liabilities	*314.6*	170.0	155.9	205.2
Provisions	*107.1*	86.1	77.4	71.7
Other non-current liabilities	*7.9*	19.7	6.0	19.5
Total non-current liabilities	**1,113.4**	**1,017.6**	**1,051.1**	**792.1**
Current liabilities				
Financial liabilities				
Borrowings	*2,480.3*	2,198.7	2,141.6	1,989.1
Lease liabilities	*63.4*	66.0	53.6	53.4
Trade payables				
Micro and small enterprises	*9.2*	11.9	3.4	7.1
Others	*1,205.7*	1,173.0	1,271.2	1,350.7
Other financial liabilities	76.5	69.9	85.8	63.4
Other current liabilities	565.4	416.3	175.1	143.9
Provisions	12.7	11.1	12.4	13.1
Current tax liabilities (net)	25.6	43.3	48.6	49.4
Total current liabilities	**4,438.7**	**3,990.1**	**3,791.7**	**3,669.9**
Total liabilities	**5,552.0**	**5,007.7**	**4,842.8**	**4,462.0**
Total equity and liabilities	**7,030.4**	**5,879.6**	**5,124.8**	**4,496.5**

Source: RHP

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