

ANNEXURE-I TO BOARD'S REPORT

Management Discussions and Analysis

Global Economic Overview

According to the International Monetary Fund (IMF), global growth for 2017 is estimated at 3.5% (3.1% in 2016) a long-awaited cyclical recovery in investment, manufacturing and trade. The projected growth for 2018 is 3.6%.

Some factors which support the improved outlook are stronger economic activity, expectations of more robust global demand, reduced deflationary pressures and optimistic financial markets. Yet, structural impediments to a stronger recovery (viz crude prices) and an unfavourable balance of risks including low commodity prices, contribute to the downside, especially in the medium term.

Source: International Monetary Fund. 2017. World Economic Outlook: Gaining Momentum Washington, April.

Advanced Economies

United States, Canada, France, Spain and other advanced economies are likely to steadily contribute to productive activity. United Kingdom and Japan too are projected to see a growth in 2017 though their 2018 output is not so promising. Germany, Italy and Korea are prominent exceptions to this uptick. Consequently, advanced economies are projected to clock at a steady growth clip of 2% in both 2017 and 2018.

Emerging Market and Developing Economies (EMDE)

Emerging and Developing Europe, CIS nations, Latin America and Caribbean and Sub-Saharan Africa are also expected to witness a healthy economic growth in 2017 and 2018. MENA, Afghanistan, Pakistan and Saudi Arabia are likely to return to 3.4% growth in 2018 after seeing a dip to 2.6% in 2017. In the projections for Emerging and Developing Asia, China is seen sliding from 6.7% in 2016 to 6.6% in 2017 and 6.2% in 2018 while ASEAN-5 grows steadily rising to 5.2% growth in 2018.

However, the most promising chapter of this yet uncertain economic recovery is unfolding right here in India with growth projected to move from 6.8% in 2016 to 7.2% in 2017 and 7.7% in 2018. This, despite the trimming of the growth forecast for 2017 by 1% and 2018 by 0.4% to factor in a temporary negative consumption shock due to cash shortages and payment disruptions induced by the withdrawal of ₹1000 and ₹500 currency notes from the economy.

Indian Economy: A Perspective

As the second largest population firing up the fourth largest economy (on a purchasing power parity basis), India accounts for much of the South Asian region's economic activity. A robust domestic demand, low energy costs, large and growing middle class, higher disposable

income in urban as well as rural households, continuing as the most attractive destination for FDI and policy reforms climate are the key factors boosting India's economic growth. A stable government at centre has also enabled passing of some key reforms

1. A bankruptcy and insolvency code was enacted.
2. Goods and Services Tax (GST) Act.
3. Rules governing FDI underwent sweeping liberalisation, allowing for 100% ownership in previously restricted sectors.
4. A monetary policy framework and a flexible inflation target ranging from 2-6%.

While these are envisaged as transformational steps for the Indian economy and its business environment, robust implementation of these policy changes will be key to realising the full potential of these reforms. The auto sector and its upstream automotive components industry also hopes to benefit from these policy initiatives in the long run.

Source:

- CIA. *The World Factbook*. (<https://www.cia.gov/library/publications/the-world-factbook/geos/in.html>)
- World Bank Group. 2017. *Global Economic Prospects, April 2012 Weak Investment in Uncertain Times*. Washington, DC.

The Indian Automotive Industry

The Indian Auto Industry is among the largest in the world, contribution to more than 7% of Indian's GDP. This sector is allow a prominent exporter.

Outlook by segment

Commercial Vehicles

The CV segment is expected to grow at a moderate 2-4% with decline in Medium and Heavy Commercial Vehicles (MHCVs) sub-segment offsetting growth projections of 5-7% for Light Commercial Vehicles (LCVs) sub-segment and 7-9% for buses sub-segment. Sale of MHCVs to decline 2-4% in 2018 as the replacement demand from large fleet operators continue to fall. In contrast, sale of LCVs is expected to grow over a high base. Improved private consumption expenditure-a key driver for LCVs, which are used to carry redistribution freight-will aid this growth, implying opportunity for component makers catering to this segment.

Passenger Vehicles (PVs)

Cars and Utility Vehicle (UVs) segment is expected to grow 7-9% in 2018 with rising disposable incomes aided by higher GDP growth. 70% of the

PV segment is still constituted by small cars, which is extremely price sensitive market segment. Consumer preference continues to shift towards compact SUVs, Sedan components suppliers have relatively better bargaining power.

Two-wheelers (2W)

Sale of two-wheelers is expected to grow 8-10% in 2018 with motorcycles clocking and estimated 6-8% growth, assuming normal monsoon, and sale of scooters growing between 12-14%.

Tractors

Tractor sales are projected to grow 8-10% in 2018 over a high base, assuming normal monsoon. Suppliers of tractor components are likely to see improved returns from this year after two consecutive years of declining volumes in 2015 and 2016. *Source: CRISIL Report*

Impact of Goods and Service Tax

The rate structure finalised by the GST Council is projected to have a neutral impact on automobiles sector as OEMs have started to pass on the benefit to customers.

Large part of Indian aftermarket is still unorganised and GST will pave the way for unorganised traditional autoparts makers to reform and join the mainstream. The organised players will also improve realisation as counterpart sales will see decline.

Policy Impact

Rationalised Structure

The government has rationalised excise and customs duties on automobiles, auto components and raw materials in a phased manner. However, semi-knocked down (SKD) units, completely built units (CBU) and second-hand imports of PVs will continue to attract high customs duties. This will offer protection to domestic automakers and provide impetus for foreign direct investments by global auto majors who will invest in local manufacturing parts of Make in India.

National Automotive Testing and R&D Infrastructure Project (NATRiP)

The government and the automotive industry jointly plan to invest ₹38 billion in NATRiP. NATRiP is envisaged to give the Indian players the combined advantages of low-cost manufacturing and product development, enhancing the industry's competitiveness and make the system more agile.

This will improve and deepen

1. Manufacturing Capabilities

2. Localise R&D
3. Boost Exports.

Automotive Mission Plan 2016-2026 (AMP)

The plan focuses on creation of intellectual property, improvement in the quality of tier-II and tier-III suppliers, improved safety and emission norms, increased electronic content in vehicles and a push towards globalisation of the market through free-trade initiatives. The milestones set out in the AMP are,

- AMP 2016-26 aims to make the industry a significant contributor to the Skill India programme by creating 65 million jobs, over and above the 25 million generated in the previous ten years
- Contribute 12% to India's GDP
- Ensure India's automotive sector ranks amongst the top three globally
- Multi-fold increase in share of exports to 35-40% of overall output
- Implement end-of-life policy for vehicles and components
- Skip Bharat Stage (BS) V and leapfrog to BS VI vehicular pollution norms by 2020
- The realisation of AMP will also play an important role in skilling of work force which is important goal of current government.

Industry drivers

Improving safety standards & other regulatory norms

Progressively evolving safety regulations have led to several technological developments in the Indian automobile industry.

Safety systems in India can be split into active and passive systems. Active safety systems stabilise the vehicle's response to critical situations, helping maintain its steerability sensorbased application. Passive systems are in-built and prevent or minimise injuries to occupants and pedestrians in case of accidents (Air bags + EA-Pads).

An accent on improving safety standards will have a direct positive bearing on the demand for safety related automotive components like driving assistance system & products.

Increasing electronic content

Prospects of the auto component industry are also expected to be guided by increasing electronic content by virtue of stricter safety norms and usage of driver assistance systems like, satellite navigation, lane assistance, & reverse parking among others.

Transition and adherence to BS-VI norms also necessitates a changeover to electronic controls. Recent advancements in engine technology also deploy electronic control units to monitor the flow of fuel and air into the cylinders.

Capability building for manufacturing electronic content has been incorporated into the milestones of AMP 2016-2026 and is expected to be a significant driver for the auto and auto components sector.

Indian Automotive Component Industry

Key underpinnings for 2017-18

Stable outlook for auto component production growth

Auto components production in India is projected to grow between 7-9% in FY 2017-18, aided by a 9-11% demand growth in OEM segment and 0-3% growth in exports. In the five year period from 2015-16 the industry output is expected to maintain a CAGR of 10-12% to touch ₹4,193 billion by FY 2020-21. A healthy rise in automobile sales will drive OEM segment off-take projected to record a CAGR of 10-12% and climb up to ₹2,772 billion by 2020-21.

Rapidly changing regulatory norms are likely to create demand for high-value components leading to higher realisation across vehicle segments in the long term (Air bags, R PAS among others). While raised cost of ownership of vehicles due to BS VI rollout could lower volume demand in FY 2020-21, higher realisation may offset this decline.

Table : Actual and projected growth (CAGR) in vehicle segments

Segment	2010-11 to 2015-16	2015-16 to 2020-21
Two Wheelers	7.0%	4-6%
Cars & Utility Vehicles	2.0%	11-13%
Commercial Vehicles	0.0%	8-10%
Three Wheelers	-1.0%	1-3%
Tractors	0.0%	9-11%

Source: CRISIL Research

Note: CAGR from 2015-16 to 2020-21 represents value growth, while the CAGR from 2010-11 to 2015-16 represents volume growth.

As India becomes a global hub for OEMs to cater to neighbouring markets, exports are expected to record a 10-12% CAGR from 2015-16 to 2020-21.

Automotive component imports (of which over 70% are estimated to cater to replacements) are forecasted to expand at 8-10% (CAGR) during the same period. Consequently, growth of domestic production for aftermarkets will remain range bound between 8-10% (CAGR).

However, more than business as is, prospects for the automotive components industry are expected to be guided by changes in product specifications and regulations such as replacing metals with plastics to reduce curb weight of vehicles, increasing electronic content to improve controls and better injection systems, electronic engine controls, driver assistance systems to substantially reduce emissions.

Exports are expected to pick up marginally at 0-3%, with a flat growth of CV sales in the US. Sale of PVs in UK is projected to decline in 2018 with Brexit beginning to impact car buying sentiment. However, a steady growth of 5% is expected from Germany in 2017 on buoyed consumer sentiment.

Aftermarket for components will continue a strong demand growth at 8-10% in FY 2017-18 post the GST roll out.

Source: CRISIL Report

Automotive Components' Demand Outlook

OEM Demand

Demand for automotive components emerging from OEMs is projected to grow at 10-12% CAGR between FY2016 and FY2021, to approximately ₹2,772 billion, led by robust vehicle production. Within the segment, demand from cars and utility vehicles is likely to show fastest growth (11-13% CAGR) followed by commercial vehicles (MHCV 5-7%, LCV 10-12% and buses 8-10%) and two-wheelers (8-10%). The proportion of manufacturing activity outsourced to auto-component makers is the highest for cars and utility vehicles, making it a significant sub-segment for the industry. In addition, other segments will also witness increase in outsourced components.

Replacement Demand

The proportion of vehicles requiring replacement is expected to remain high until 2020-21. Since vehicle production in 2010-15 has been much higher than in 2004-2009 grow at a healthy CAGR of 8%-10% in the next five years. Total auto-component imports are forecasted to post an 8%-10% CAGR, slightly lower than the CAGR of 11.4% in the previous quinquennium.

Certain economic developments are seen to hold great promise for the organised auto-components sector. First, there is an emerging proclivity of OEMs to shift to localised products. Second, under the new GST regime, there is strong likelihood of the industry gradually turning to organised players for sourcing auto-components. Third, the government has imposed anti-dumping duties on certain components, (Tyres and Alloy wheels among others). As a consequence of these developments, replacement parts may increasingly be sourced from domestic players accompanied by more intensive use of service stations with service quality improvement. Therefore, Minda Distribution Services Limited, the aftermarket arm of MIL will, if anything, experience positive impact of the GST roll-out.

Export Demand

Though the penetration of Indian automotive components in major markets such as the North American Free Trade Agreement region and the European Union is minuscule at present, forming less than 1% of global exports, this is set to change. In the near future, global OEMs are definitely expected to increasingly source automotive components at competitive prices from low-cost countries, such as India, where component manufacturers have demonstrated their ability to adhere to stringent international quality standards.

Therefore, there is a considerable opportunity for expansion by Indian auto-component players in the next few years. (Source: CRISIL Report)

Strong growth potential in critical, complex component exports

Critical components which are technologically more complex offer higher margins to manufacturers, but require greater investment in R&D as well as high-precision engineering to meet the stringent quality standards of global OEMs.

Indian manufacturers were able to gradually increase their proportion of exports of critical components, as they faced relatively lesser competition from other low-cost countries in this segment, many of which supplied more basic components, which were not as cost and quality-intensive. In 2015, low-cost country exports comprised about 51.5% of such commoditised components.

The share of technologically complex products forms only 35%–45% of Indian auto-components export, it is as high as 65% for Brazil (2015) and 49% for Thailand and China. India's share of technologically complex products is expected to expand gradually, as the domestic automotive market increasingly attains global technological intensity levels and component manufacturers continue to acquire greater technological prowess. (Source: CRISIL Report)

Emission Norms

BS-IV & VI norms to be implemented throughout India April 2017, BS-IV implemented, BS-VI by 2020

New emission norms necessitate changes to vehicle design and fuel quality, which call for large investments from both automakers and oil refining companies. Although these changes have long-term environmental benefits, they pose near-term challenges including cost implications. (Source: CRISIL Report)

As per Auto Fuel Policy 2025, BS-IV has been rolled-out in April 2017; BS V by 2021 and BS-VI by 2024. However, in January 2016, the central government decided to skip BS-V norms and shift directly to BS-VI norms by April 2020. The move is expected to reduce NOx emissions by 25% in petrol engine vehicles and by 68% in diesel engine vehicles. Furthermore, particulate matter (PM) emissions, a major contributor to outdoor air pollution, are also expected to come down drastically by over 80% in diesel engine vehicles. (Source: CRISIL Report)

These transition will provide opportunity to Auto components manufactures to participate in new/complex products which are futuristic & will enjoy better margins.

Transitioning to BS-VI norms requires significant engine technology changes including improvements in engine combustion and calibration, increased injection and cylinder pressures, NOx and PM after-treatment solutions and transitioning to electronic controls. Typically, two types of engine fitments will be required for upgradation of four-wheelers to BS-VI norms from BS-IV norms:

- Diesel Particulate Filter (DPF) for reduction of PM in diesel vehicles

- Selective Catalytic Reduction (SCR) module for reduction in NOx emissions

Business Operation Review

Switch & Handle Bar Systems Division

Besides being the largest Indian manufacturer of switching systems and handle bar solutions for two/three-wheelers serving almost all major OEMs globally, MINDA Industries Limited (MIL) also develops switching solutions for off-road vehicle segments. About 60% of the company's standalone revenue is generated by the Switch Systems Division. Its marquee customers include Honda Motorcycles, Hero Motocorp, Royal Enfield, Yamaha Motors, and Piaggio. Complementing the five switch system plants of MIL in India and PTMA with its manufacturing facility in Indonesia and MIVCL in Vietnam. In addition, a state-of-the-art design office in Japan to ensures design and development in sync with latest switching solutions in the world. In its endeavour to be a global leader and most preferred supplier of switch systems to two-wheelers and off-road vehicles worldwide, the Switch Systems Division of MIL is focusing on the development of innovative, cost-effective and quality solutions.

Sensors Actuators and Controllers Division

The Sensors Actuators and Controllers (SAC) Division was set up in 2005 and rapidly grew into a leading supplier of electronic components to OEMs in India such as General Motors, Mahindra, Volvo Eicher, Royal Enfield, Tata, and Bajaj. The products include start-stop sensors, contact and non-contact type speed sensors, HID ballast, tyre pressure monitoring systems, electronic accelerator pedal modules, DC-AC converters, head lamp levelling motors, etc. The ultramodern state-of-the-art production facility in Pune, India routinely manufactures products that fully meet customer requirements and exceed expectations.

Lighting Division

The Lighting Division of MIL specialises in designing, R&D, manufacturing and delivering end-to-end lighting solutions at competitive costs to OEMs. With a strong presence in the aftermarket business, MIL produces premium lights for two-, three-, four-wheelers, as well as off-road vehicles. MIL is among the leading manufacturers of automobile lamps and signalling devices in India. Apart from its in-house engineering wing, MIL has a technical license with AMS Co. Ltd, Korea. The division operates across its plants at Pantnagar, Sonapat, Manesar and Pune. The client base includes the biggest OEM brands of the world like Maruti, Renault Nissan, M&M, Royal Enfield, Yamaha, Tata, Suzuki, Swaraj Mazda, and New Holland. In June 2016, MIL acquired the global lighting business of the Rinder Group based out of Spain (including its facilities in India, Spain and Columbia). The acquisition will enable MIL to further expand its presence in cutting edge lighting technology supported by Rinder's extensive R&D centre in Spain.

Auto Gas Division

The Auto Gas Division manufactures LPG/CNG kits and components for OEMs as well as for aftermarket.

Acoustic Division

With MIL's Acoustic Division accounting for 50% share in the offtake automotive horns in India, the company has emerged as a leading supplier to two/four-wheeler, off-road and commercial vehicle brands like Maruti Suzuki, Renault Nissan, Hyundai, Tata Motors, Bajaj Auto Ltd, Honda Motorcycles and Scooters, Royal Enfield etc. The manufacturing units at Manesar and Pantnagar are supported by a dedicated R&D team in the design, development, and production of highly durable, quality automotive horns that deliver optimum sound performance. In April 2013, MIL acquired Clarton Horns S.A.U., a leading manufacturer of automotive horns, trumpet horns and disc horns based out of Spain. With this acquisition, MIL came to be recognised as one of the top two players in automotive acoustics globally and gained access to leading European and American OEMs. The operations of Clarton Horn extended in Mexico in 2015, in order to cater to the American and Mexican market.

Battery Division

The Battery Division had two products in its portfolio-Ultimo which was a valve-regulated and Power Plus which was a flooded lead acid battery-both for two-wheelers. Currently focused on the aftermarket segment, battery business has been hived off to Minda Storage Batteries Limited, with effect from 1 April, 2017.

Fuel Cap Division

The market for fuel tank caps for four-wheelers has historically been highly skewed in favour of imported products. This is changing gradually with more OEMs opting to localise this component and substituting imported caps with Indian makes, in particular, MINDA caps. The Fuel Cap Division is therefore likely to see improved sales and margins in the foreseeable future.

Financial Performance

Net Operational Income: The Company, on a consolidated basis, mopped up net operational income of ₹3,505.03 Crore in FY 2016-17, up by 39% against net operational income of ₹2,527.34 Crore posted in the fiscal year FY2015-16. Export Overseas business constitutes 21% of overall sales at the consolidated level.

Operating Expenses: The Company, on a consolidated basis, incurred operating expenses of ₹3,296.45 Crore in FY 2017, up 37% against FY 2015-16 corresponding operating expenses of ₹2,407.81 Crore.

Net Profit: The Consolidated net profit was ₹168.08 Crore in FY 2016-17, as against ₹111.14 Crore in FY 2015-16 which has been achieved by cost rationalisation and operating leverage.

Segmental Profitability:

The Company has one business segment 'Auto Components including auto Electrical Parts and its accessories' as primary segment. The secondary segment is geographical, which is given as under:

(₹ in Crore)

Particulars		Current year	Previous year
Revenue from operations	Within India	2,754.06	2,017.49
	Outside India	750.97	509.85
Assets	Within India	2,053.67	1,391.52
	Outside India	357.46	95.33
Cost incurred on acquisition of fixed assets	Within India	567.11	248.34
	Outside India	30.70	69.73

Risk and Concern(s)

To reduce quality risk, the Company has skilled workforce who are provided Job Skill enhancement training. The Company regularly interacts with its suppliers and supervises by conducting periodical audit in their plants to ensure that the raw materials as well as the processes meet out the quality standards.

To mitigate a competition risk and technology risk, the Company undertakes research and development activities to ensure its products matches the clients specifications.

Internal Control Systems

The Company has a proper and effective system of internal controls for financial reporting of various transactions, efficiency of operations, safeguarding of assets and compliance with applicable statute and regulations. It has a structured system of audit which is an ongoing basis to review the adequacy of internal control systems. The internal control is well-designed to ensure that financial and other records are reliable for preparing financial information and other data.

The Company also has an exhaustive budgetary monitoring control system in place. Actual performance is evaluated with reference to budgeted performance by the management review committee on an on-going basis. The discrepancies of actual performance with the budgets are analysed on a regular basis and possible remedial actions are suggested by the management review committee, in consultation with the audit review committee.

The internal audit is being carried out by the internal team as well as by M/s. Protiviti Consulting, internal Auditors of the Company. Their reports are being reviewed in the audit committee meeting and the counter measures, if any, to strengthen the internal controls are also taken in this regard. Further, the suggestions made by internal audit committees are reviewed and considered by audit committees on a quarterly basis for improvement of internal controls and systems within the Group.

Further the suggestions made by the Internal Audit Committee is presented to the Board. The Board reviews and approves the same from time to time. The action taken report(s) are also reviewed by the audit committee members as well as the Board members.

Human Resources

Minda Industries Ltd. is committed to maintain a progressive work environment for its employees. We also believe that employees are partners and key enablers for success and growth of the company. The company in turn is geared up to deliver more value to its customers, investors and society as a whole. UNO Minda group has people from various geographies & demographics with diverse skillsets and cultures. An Innovation Meet (I-Meet), is conducted every year to foster a culture of innovation at workplace. Various engagement activities like sports week, Annual day, other events are organised for employee welfare and motivation. As on March 31, 2017, numbers of permanent employees in the Company were 3,258.

“Pathshala” is an evolved concept of the company for the employees under which, regular training programs are organised to keep the employees updated in their respective spheres of work field and further enhance their skill levels. This initiative ensures improved performance, disciplined processes with better practices, which culminates into high quality end products resulting in customer satisfaction.

The Company imparts training to all fresh recruits, to ensure that they join hands with the Company and work in sync to achieve Company's goal and be a part of our journey to take the organisation to new heights. Recruiting, retaining and motivating the best talent in the industry, ensuring their development is one of the foremost challenges in today's business environment.

The Company focuses on grooming the existing talent base as well as developing the new talent, to enable them to take positions of greater responsibility within the Company. All the new recruits are trained to become socially, professionally and culturally integrated. The Company also follows a robust performance management system to encourage all the employees to achieve their targets and fulfil their responsibilities.

Our employees are also an integral part of an Corporate social responsibility programme. We at UNO MINDA nurture innovative thought processes and culture and this is the theme of our people engagement initiatives. In line with this our Group Companies have a strong thrust on quality which is achieved through activities like

kaizen and quality circle. 5S is being done at all level to improve the productivity and efficiency of the employees. All employees are made aware of and have access to the central database of HR policies covering all aspects of welfare, benefits and administration.

Outlook

The Indian auto component industry is among the few sectors that have a distinct global competitive advantage in terms of cost and quality. UNO MINDA focuses on end-to-end product solutions for the OEMs, from product development to manufacturing with the promise of reliability and technological contemporaneity. The company also provides aftermarket services at competitive prices both in India and abroad. UNO MINDA is clearly positioned as a technology leader across product lines, backed by strong R&D and strategic JVs with leading technology partners across segments. Innovation and constant up gradation of products with enhanced features has been a key business strategy.

While on the one hand, the Indian Automotive market is witnessing the increased participation of global players, the shortened product life cycles, on the other, are opening up bigger opportunities for Indian OEMs to become global players in the true sense. It is also an opportunity for India to become a global hub for automotive components.

The Indian auto component market is likely to see regulatory changes in the near future with an emphasis on mandatory vehicular safety features such as air bags and reverse parking sensor systems. Many products considered premium features today will become part of the standard kit in coming years. At MIL, we continuously evaluate our product portfolio and its technology readiness for the future, in the face of challenges posed by both emerging and disruptive technologies. The company has a long standing relationship with all OEMs that could only be built on the years of remarkable responsiveness that MIL displayed to their ever-changing needs.

As always, UNO MINDA intends to seize every emerging opportunity by investing in technology, processes and people to achieve its goal of becoming a leading auto component manufacturer globally.